

# DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## AIR QUALITY OPERATING PERMIT

Permit No. AQ0270TVP02

Issue Date: Public Comment - August 29, 2013

Expiration Date: Five Years

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 **Prudhoe Bay Unit Central Gas Facility**.

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

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

The Department has determined the Prudhoe Bay Unit Central Gas Facility (CGF) and the Central Compressor Plant (CCP) to be a single stationary source (the Gas Plant) as defined by this permit as the surface structures and their associated emitting activities for the purposes of Title I and Title V permitting. The CCP and associated emission units operate under a separate operating permit AQ0166TVP01.

All currently applicable stationary source-specific terms and conditions of Air Quality Control Construction Permit No. AQ0270CPT04 have been incorporated into this operating permit. In addition, the currently applicable stationary source-specific terms and conditions of Operating/Construction Permit No. AQ0270TVP01 have been incorporated into this permit.

Citations listed herein are contained within 18 AAC 50 dated May 8, 2013 Register 206. All Federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

Upon the effective date of this permit, Operating Permit No. AQ0270TVP01 expires.

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

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John F. Kuterbach, Manager  
Air Permits Program

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### List of Abbreviations Used in this Permit

AAC.....	Alaska Administrative Code	MMBtu/hr.....	Million British thermal units per hour
ADEC .....	Alaska Department of Environmental Conservation	MMSCF.....	Million standard cubic feet
AS .....	Alaska Statutes	MMSCF/hr .....	Million standard cubic feet per hour
ASTM.....	American Society for Testing and Materials	MR&R.....	Monitoring, Recordkeeping, and Reporting
BACT .....	Best Available Control Technology	NESHAPs.....	Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
BHp .....	Boiler Horsepower	NOx .....	Nitrogen Oxides
bHp .....	Brake Horsepower	NSPS .....	Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
C.F.R. ....	Code of Federal Regulations	O & M .....	Operation and Maintenance
The Act.....	Clean Air Act	O <sub>2</sub> .....	Oxygen
CGF .....	Prudhoe Bay Unit Central Gas Facility	PAL .....	Plantwide Applicability Limitation
CI.....	Compression Ignition	PM <sub>10</sub> .....	Particulate Matter less than or equal to a nominal ten microns in diameter
CO .....	Carbon Monoxide	ppm .....	Parts per million
CO <sub>2</sub> .....	Carbon Dioxide	ppmv, ppmvd.....	Parts per million by volume on a dry basis
CO <sub>2</sub> e .....	Carbon Dioxide Equivalent Emissions	psia .....	Pounds per Square Inch (absolute)
dscf .....	Dry standard cubic foot	PS .....	Performance Specification
EPA .....	US Environmental Protection Agency	PSD .....	Prevention of Significant Deterioration
EU.....	Emission Unit	PTE.....	Potential to Emit
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	RICE.....	Reciprocating Internal Combustion Engine
GHG .....	Greenhouse Gas	RM.....	Reference Method
GPH .....	gallons per hour	SIC.....	Standard Industrial Classification
gr./dscf.....	grain per dry standard cubic foot (1 pound = 7000 grains)	SO <sub>2</sub> .....	Sulfur dioxide
HAPs .....	Hazardous Air Pollutants [HAPs as defined in AS 46.14.990]	TPH .....	Tons per hour
Hp .....	Horsepower	TPY .....	Tons per year
H <sub>2</sub> S.....	Hydrogen Sulfide	VOC .....	volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
ICE.....	Internal Combustion Engine	VOL.....	volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
ID.....	Emission Unit Identification Number	vol% .....	volume percent
ISO.....	Operating conditions corresponding to sea level and 59 deg. F	wt% .....	weight percent
kPa.....	kilopascals		
kW .....	kilowatt		
kW-e .....	kilowatt electric		
LAER.....	Lowest Achievable Emission Rate		
MACT .....	Maximum Achievable Control Technology [MACT as defined in 40 C.F.R. 63]		

**Section 1. Stationary Source Information**

**Identification**

Permittee:	BP Exploration (Alaska) Inc. 900 East Benson Blvd. (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	
Stationary Source Name:	Central Gas Facility	
Location:	Section 11, T11N, R14E, Umiat Meridian 70° 19' 09.7" North; 148° 30' 59.9" West Approximately 12 mi. north of Deadhorse, AK on West Dock Road.	
Physical Address:	Prudhoe Bay, Alaska	
Owner:	BP Exploration (Alaska) Inc. 900 East Benson Blvd. (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	Chevron USA Inc. P.O. Box 36366 Houston, TX 77236
	ConocoPhillips Alaska, Inc. 700 G Street (Zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360	ExxonMobil Alaska Production, Inc. 3301 C St., Suite 400 (Zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601
Operator:	BP Exploration (Alaska) Inc. 900 East Benson Blvd. (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	
Permittee's Responsible Official	Colm O'Riordan, GPB Operations Manager	
Designated Agent:	CT Corporation System 9360 Glacier Hwy, Suite 202 Juneau, AK 99801	
Stationary Source and Building Contact:	Carl Long/Scott Cabaniss (907) 659-8682 gpbgasplantsotl@byp.com	
Fee Contact:	Gregory Arthur, Compliance Authority (907) 564-4081 gregory.arthur@bp.com	
Permit Contact:	Gregory Arthur, Compliance Authority (907) 564-4081 gregory.arthur@bp.com	
Process Description	SIC Code:	1311 - Crude Petroleum and Natural Gas Production
	NAICS Code:	211111 - Crude Petroleum and Natural Gas Extraction

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

**Section 2. Emission Unit Inventory and Description**

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

**Table A - Emission Unit Inventory**

<b>EU ID</b>	<b>Tag Number</b>	<b>Emission Unit Description</b>	<b>Rating/Size</b>	<b>Commenced Construction, Startup or Modification / Reconstruction Date<sup>1</sup></b>
<b>Group I - Gas-Fired Turbines</b>				
1	NGI-19-1883	GE Frame 6 MS6001(B) Injection Compressor	53,665 hp ISO	4/1998
2	NGI-19-1884	GE Frame 6 MS6001(B) Injection Compressor	53,665 hp ISO	4/1998
3	NGI-19-1885	GE Frame 6 MS6001(B) Injection Compressor	53,665 hp ISO	4/1998
4	NGI-19-1886	GE Frame 6 MS6001(B) Injection Compressor	53,665 hp ISO	4/1998
5	NGI-19-1801	Cooper-Rolls/RB211-24C Booster Compressor	33,300 hp ISO	1986
6	NGI-19-1802	Cooper-Rolls/RB211-24C Booster Compressor	33,300 hp ISO	1986
7	NGI-19-1805	Cooper-Rolls/RB211-24C Miscible Injectant Compressor	33,300 hp ISO	1986
8	NGI-19-1855	Cooper-Rolls/RB211-24C Miscible Injectant Compressor	33,300 hp ISO	1986
9	NGI-19-1806	GE Frame 5 M5382C Refrigerant Compressor	38,000 hp ISO	7/1998
10	NGI-19-1856	GE Frame 5 M5382C Refrigerant Compressor	38,000 hp ISO	8/1998
11	NGI-19-1857	GE Frame 5 M5382C Booster Compressor	38,000 hp ISO	9/1999
<b>Group II - Gas-Fired Heaters</b>				
12	NGI-19-1401	Chiyoda-John Zink Hot Oil Heater	216 MMBtu/hr [heat input, LHV]	1986
13	NGI-19-1402	Chiyoda-John Zink Hot Oil Heater	216 MMBtu/hr [heat input, LHV]	1986
14	NGI-19-1403	Chiyoda-John Zink Hot Oil Heater	216 MMBtu/hr [heat input, LHV]	1986
<b>Group III - Diesel-Fired Engines</b>				
15	NGI-19-2890	GE (EMD)/20-645F4B Emergency Electric Generator	2,865kW/4,000 hp	1992
16	NGI-19-2802	GE (EMD)/20-645F4B Emergency Electric Generator	2,865kW/4,000 hp	1986 (est.)
17	NGI-19-2819	GE (EMD)/20-645F4B Emergency Electric Generator	2,865kW/4,000 hp	1986 (est.)
18	NGI-19-1529	Caterpillar/3406P Emergency Fire Water Pump	330 hp	1986 (est.)

EU ID	Tag Number	Emission Unit Description	Rating/Size	Commenced Construction, Startup or Modification / Reconstruction Date <sup>1</sup>
Group IV - Flares				
19	19-1408	IHI-John Zink Emergency Flare (HP-Primary Pit)	3.0 MMscf/day combined total (pilot/purge/assist)	1986 (est.)
20	19-1409	IHI-John Zink Emergency Flare (LP-Primary Pit)		1986 (est.)
21	19-1410	IHI-John Zink Emergency Flare (HP- Emergency Pit)		1986 (est.)
22	19-1411	IHI-John Zink Emergency Flare (LP- Emergency Pit)		1986 (est.)
23	19-1412	IHI-John Zink Emergency Flare (HGL Burn Pit)		1986 (est.)
Group V – Natural Gas Processing Plant				
26	Modules and Skids <sup>2</sup>	Natural Gas Liquids (NGL) Plant, required to be controlled by Flares (EU ID(s) 19 - 22)	NA	1993

**Table Notes:**

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

2 - Specific stationary source modules and skids that contain equipment subject to 40 C.F.R. 60 Subpart KKK (*Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011*) standards include:

19-4901	Inlet Module (connecting lines only)	19-4933	LTS-2 Gas/Liquid Exchanger Module
19-4902	Booster Compressor Module (plus connecting lines)	19-4934	LTS Gas/Gas Exchange Skid
19-4902A	Booster Compressor Module	19-4935	NGL Divert Skid
19-4903	Booster Compressor Aftercoolers Skid	19-4938	GHX-1 Inlet Separator Module
19-4904	Booster Compressor Module	19-4938D	Inlet Expansion Module
19-4920	LTS-1 Separator Module	19-4939	LTS-3 Module
19-4924	LTS Economizer Module	19-4950	Utility/Stabilizer Utilidor (plus connecting lines)
19-4926	LTS-2 Refrigerant Compressor Module	19-1951	Stabilizer Module (plus connecting lines)
19-4927	Refrigerant Compressor Skid	19-1951A	Stabilizer Preheater Skid
19-4928	Refrigerant Compressor Skid	19-4953	Stabilizer Condenser Skid
19-4929	Refrigerant Compressor Skid	19-4954	Miscible Injectant Compressor Module
19-4930	Refrigerant Compressor Skid	19-4955	Miscible Injectant Compressor Module
19-4931	Refrigerant Storage Skid	19-4957	LTS-3 Booster Compressor Module
19-4932	LTS-2 Separator Module		

[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 ID(s) 1 through 23 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

- 1.1. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU ID(s) 5 through 10 listed in Table A to reduce visibility through the exhaust effluent by more than 10 percent averaged over any six consecutive minutes.

[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-13, as amended 8/29/97]

- a. For EU IDs 5 through 10, monitor visible emissions as opacity as set forth in Condition 11.1.
- 1.2. For EU ID(s) 1 through 14, burn only gas as fuel. Monitoring for these emission unit(s) shall consist of a statement in each operating report under Condition 88 indicating whether each of these emission unit(s) fired only gas for the period covered by the report. Report under Condition 87 if any fuel other than gas is burned.
- 1.3. For each of EU ID(s) 15 through 18, as long as the emission unit does not operate in excess of 400 total hours (emergency and non-emergency) per consecutive 12-month period, monitoring shall consist of an annual statement of compliance with the visible emissions standard based on reasonable inquiry under Condition 89. Otherwise monitor, record and report visible emissions in accordance with Conditions 2 through 4 for that emissions unit for the remainder of the permit term.
- 1.4. For EU ID(s) 19 through 23 (flares), monitor, record and report in accordance with Condition 5.

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

#### **Visible Emissions Monitoring, Recordkeeping and Reporting**

##### *Liquid Fuel-Fired Emission Units (EU ID(s) 15 through 18)*

- 2. Visible Emissions Monitoring.** The Permittee shall observe the exhaust of EU ID(s) 15 through 18 (as applicable based on Condition 1.3), or if replaced during the permit term, for visible emissions using the Method 9 Plan under Condition 2.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.

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

- 2.1. **Method 9 Plan.** For all 18-minute observations in this plan, observe exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations<sup>1</sup>.
- a. **First Method 9 Observation.** For any unit which meets the following criteria, observe the exhaust for visible emissions as follows:
    - (i) For any liquid fuel fired unit listed in Condition 2 replaced during the permit term, observe exhaust for 18 minutes within 30 days of startup.
    - (ii) For each existing emission unit that exceeds the operational thresholds in Condition 1.3, observe the exhaust for 18 minutes of operations within 45 days after the calendar month during which that threshold has been exceeded, or when the unit is next operated, whichever is later.
  - b. **Monthly Method 9 Observations.** After the first Method 9 observation required by Condition 2.1.a, perform 18-minute observations at least once in each calendar month that an emission unit operates.
  - c. **Semiannual Method 9 Observations.** After observing emissions for three consecutive operating months under Condition 2.1.b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations:
    - (i) Within six months after the preceding observation.
    - (ii) During the next scheduled operation immediately following six months after the preceding observation for an emission unit with intermittent operations.
  - d. **Annual Method 9 Observations.** After at least two semiannual 18-minute observations under Condition 2.1.c, 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 at least annually:
    - (i) Within 12 months after the preceding observation.
    - (ii) During the next scheduled operation immediately following twelve months after the preceding observation for an emission unit with intermittent operations.

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<sup>1</sup> 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 described in Condition 2.1.b until the criteria in Condition 2.1.c for semiannual monitoring are met.

**3. Visible Emissions Recordkeeping.** When Method 9 monitoring is conducted under Condition 2.1, the Permittee shall keep records as follows:

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

3.1. 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, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating mode (*load or fuel consumption rate or best estimate if unknown*) on the sheet at the time opacity observations are initiated and completed;
- 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 6-minute and 18-consecutive-minute averages observed.

**4. Visible Emissions Reporting.** When Method 9 monitoring is conducted under Condition 2.1, the Permittee shall report visible emissions as follows:

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

- 4.1. In each operating report under Condition 88, include for the period covered by the report:
  - a. copies of the observation results (*i.e.* opacity observations) for each emission unit that used the Method 9 Plan, except for the observations the Permittee has already supplied to the Department;
  - 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;
  - c. a summary of any monitoring or recordkeeping required under Conditions 2 and 3 that was not done;
- 4.2. Report under Condition 87:
  - a. the results of Method 9 observations that exceed an average of 20 percent opacity for any six-minute period; and
  - b. if any monitoring under Condition 2 was not performed when required, report within three days of the date the monitoring was required.

*Flares (EU ID(s) 19 through 23)*

**5. Visible Emissions Monitoring, Recordkeeping, and Reporting.** The Permittee shall observe one daylight flare event<sup>2</sup> within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later. If no event exceeds 1 hour within that 12-month period, then the Permittee shall observe the next daylight flare event.

- 5.1. Monitor flare events using Method-9.
- 5.2. Record the following information for observed events:
  - a. the flare(s) EU ID number;
  - b. results of the Method-9 observations;
  - c. reason(s) for flaring;

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<sup>2</sup> 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 88, an explanation of the reason that the flare event was not monitored. If no flare events meeting this definition occur during a reporting 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 88 for the period covered by the report.
- 5.5. Report under Condition 87 whenever the visible emissions standard in Condition 1 is exceeded or monitoring under Condition 5 is not completed.

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

### **Particulate Matter Emissions Standards**

- 6. Industrial Process and Fuel-Burning Equipment Particulate Matter.** The Permittee shall not cause or allow particulate matter emitted from EU ID(s) 1 through 23 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

- 6.1. For EU ID(s) 1 through 14, burn only gas as fuel. Monitoring for these emission unit(s) shall consist of a statement in each operating report under Condition 88 indicating whether each of these emission units fired only gas during the period covered by the report. Report under Condition 87 if any fuel other than gas is burned.
- 6.2. For each of EU ID(s) 15 through 18, as long as the individual emission unit does not exceed 400 hours of total operation (emergency and non-emergency hours combined) per consecutive 12-month period, monitoring shall consist of an annual statement of compliance with the particulate matter standard, based on reasonable inquiry. Otherwise, monitor, record, and report in accordance with Conditions 7 and 8, for that emission unit for the remainder of the permit term.
- 6.3. For EU ID(s) 19 through 23, the Permittee must annually certify compliance under Condition 89 with the particulate matter standard.

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

## **PM Monitoring, Recordkeeping and Reporting**

### *Liquid Fuel-Fired Sources (EU ID(s) 15 through 18)*

- 7. Particulate Matter Monitoring for Diesel Engines.** The Permittee shall conduct source tests on diesel engines, EU ID(s) 15 through 18, if required by Condition 6.2 to determine the concentration of particulate matter (PM) in the exhaust as follows.

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

- 7.1. Except as provided in Condition 7.4 within six months of exceeding the criteria of Condition 7.2.a or 7.2.b, either
- a. conduct a PM source test according to requirements set out in Section 6; or
  - b. make repairs so that emissions no longer exceed the criteria of Condition 7.2; to show that emissions are below those criteria, observe emissions as described in Condition 2.1 under load conditions comparable to those when the criteria were exceeded.
- 7.2. Conduct the PM source test or make repairs according to Condition 7.1 if:
- a. 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity greater than 20 percent; or
  - b. for an emission unit with an exhaust stack diameter that is less than 18 inches, 18 consecutive minutes of Method 9 observations result in an 18-minute average opacity that is greater than 15 percent and not more than 20 percent, unless the Department has waived this requirement in writing.
- 7.3. During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the highest average 6-minute opacity that was measured during each one-hour test run. Submit a copy of these observations with the source test report.
- 7.4. The automatic PM source test requirement in Conditions 7.1 and 7.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

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

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

- 8.1. Report under Condition 87
- a. the results of any PM source test that exceed the PM emissions limit; or
  - b. if one of the criteria of Condition 7.2 was exceeded and the Permittee did not comply with either Condition 7.1.a or 7.1.b. This must be reported by the day following the day compliance with Condition 7.1 was required; or

- c. within 30 days of the end of the month in which the observations occur for observations in excess of Condition 7.2.a or 7.2.b.
- 8.2. In each operating report under Condition 88, 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.
- [40 C.F.R. 71.6(a)(3) & (c)(6)]

### **Sulfur Compound Emission Standards Requirements**

9. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from EU ID(s) 1 through 23 to exceed 500 ppm averaged over three hours.

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

#### *Monitoring and Reporting for Other Fuel Oil<sup>3</sup> (EU ID(s) 15 through 18)*

- 9.1. **Monitoring.** The Permittee shall comply with either Condition 9.1.a or 9.1.b for fuel obtained from a third-party supplier:
- a. For each shipment of fuel:
    - (i) If the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify the fuel grade, maximum sulfur content of the fuel grade, and amount received; or
    - (ii) If the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify the fuel grade and amount received, and
      - (A) 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
      - (B) obtain test results showing the sulfur content of the fuel from the supplier or refinery; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

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<sup>3</sup> *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.

- b. Analyze at least monthly the sulfur content of the liquid fuel in each storage tank that supplies fuel to EU ID(s) 15 through 18 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).
- 9.2. If a shipment of fuel under Condition 9.1.a contains greater than 0.75 percent sulfur by weight or the results of the sample analyses under Condition 9.1.b indicate that the stored fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO<sub>2</sub> emissions in ppm using either the Material Balance Calculation shown in Section 12 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
- 9.3. **Reporting.** The Permittee shall report as follows:
- a. If SO<sub>2</sub> emissions calculated under Condition 9.2 exceed 500 ppm, the Permittee shall report under Condition 87. The report shall document the calculation under Condition 9.2.
  - b. The Permittee shall include in the operating report required by Condition 88:
    - (i) a list of the fuel grades received at the stationary source during the reporting period;
    - (ii) for any fuel grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur content of each shipment;
    - (iii) the results of all fuel sulfur analyses conducted under Condition 9.1.b during the reporting period and documentation of the method(s) used to complete the analyses; and
    - (iv) for fuel with a sulfur content greater than 0.75 percent, the SO<sub>2</sub> emissions calculated in ppm under Condition 9.2.
- [18 AAC 50.040(j), 50.326(j), & 50.346(c)]  
[40 C.F.R. 71.6(a)(3)]

*Monitoring and Reporting for Fuel Gas<sup>4</sup> (EU ID(s) 1 through 14 and 19 through 23)*

- 9.4. For EU ID(s) 1 through 14 and 19-23, the Permittee shall monitor, record and report gas sulfur content according to Conditions 16, 34.1 and 34.2.
- 9.5. **Monitoring:** For EU ID(s) 12 through 14 and 19 through 23, the Permittee shall either:
- a. analyze a representative sample of the fuel monthly to determine the sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1); or

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<sup>4</sup> *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.

- b. make a demonstration that the fuel gas burned at the stationary source meets the definition of natural gas as allowed under Condition 34.1.b. If such a demonstration is made, then the frequency of monitoring may be reduced to no less than semi-annually. Use the results of this monitoring as the basis for estimating actual SO<sub>2</sub> emissions from gas-fired emission units at the source.
- 9.6. **Recordkeeping:** Keep records of the sulfur content analysis or demonstration required under Condition 9.5.a or 9.5.b.
- 9.7. **Reporting:** The Permittee shall:
- a. Report as excess emissions, in accordance with Condition 87, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9.
  - b. Include copies of the records required by Condition 9.5 with the operating report required by Condition 88 for each month of the reporting period.

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

*Monitoring and Reporting for North Slope Liquid Fuel (EU ID(s) 15 through 18)*

- 9.8. **Monitoring and Reporting:** 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 88 a list of the sulfur content(s) measured for each month covered by the report.
  - b. If the fuel contains greater than 0.75% sulfur by weight, the Permittee shall calculate SO<sub>2</sub> emissions in ppm using either the SO<sub>2</sub> material balance calculation in Section 12, or Method 19 of 40 C.F.R 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).
  - c. If SO<sub>2</sub> emissions are calculated under Condition 9.8.b to exceed 500 ppm, the Permittee shall report under Condition 87. The report shall document the calculation under Condition 9.8.b.
  - d. For fuel with a sulfur content greater than 0.75% by weight, the Permittee shall include in the operating report required by Condition 88 the SO<sub>2</sub> emissions calculated under Condition 9.8.b.

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

## **Preconstruction<sup>5</sup> Permit Requirements**

### *Turbine BACT (LHE Liners), EU ID(s) 9 through 11*

- 10.** The Permittee shall operate EU ID(s) 9 through 11 with LHE liner combustion technology or alternative technology capable of achieving continuous compliance with the limits specified in Table B below. Monitoring shall consist of an annual statement of compliance under Condition 89 that the Permittee complies with this condition.

[Condition 7, Construction Permit No. AQ0270CPT04, 10/13/09]

### *Turbine BACT Emission Limits, EU ID(s) 1 through 11*

- 11.** The Permittee shall limit actual emissions from the turbines, EU ID(s) 1 through 11, as indicated in Table B below. Limits in Table B are not to be exceeded.

[Conditions 8, 11, 13 & 14, Construction Permit No. AQ0270CPT04, 10/13/09]  
[Condition 3, Permit to Operate No. 9273-AA016, as amended through 12/23/96]  
[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-13, as amended 8/29/1997]

- 11.1. Opacity Monitoring.** Except as allowed under Condition 11.1.b, for EU IDs 5 through 10, conduct annual visible emission observations, the first to be completed within 12 months of the effective date of this permit to demonstrate compliance with the short-term turbine BACT opacity emission limit in Table B. The observations shall be conducted 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.
- a. Except as allowed under Condition 11.1.b, conduct subsequent visible emission observations within twelve months after the preceding observation.
  - b. For an emission unit with intermittent operations, the required observations may be completed during the next scheduled operation immediately following the deadline stated in Condition 11.1 or 11.1.a.
  - c. Record and report as required under Conditions 3 and 4 except report results compared to the 10 percent opacity limit instead of 20 percent opacity.
  - d. Report under Condition 87 the results of Method 9 observations that exceed the BACT opacity emission limit in Table C.

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<sup>5</sup> *Preconstruction* 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 18, 1997), construction permits issued effective January 18, 1997 or later, and minor permits issued effective October 1, 2004 or later.

11.2. **NO<sub>x</sub> Monitoring:**

- a. The Permittee shall conduct a NO<sub>x</sub> emission source test on any one of EU ID(s) 9 through 11 and one NO<sub>x</sub> emission source test on any one of EU ID(s) 1 through 4 no less than once every five years from the date of the prior test as long as emissions remain less than 90% of the NO<sub>x</sub> limit. Perform and submit the results of the source test in accordance with Section 6.

[Condition IX.B., Construction Permit No. 9873-AC006, 7/15/98]

- (i) If the latest emissions source test is greater than or equal to 90% of the emissions limit then conduct these tests every two years from the date of the prior test.

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

- b. The Permittee shall conduct a NO<sub>x</sub> emission source test on any one of EU ID(s) 5 through 8 no later than 12 months after the effective date of this permit and no less than once every five years thereafter. Perform and submit the results of the source test in accordance with Section 6. A test conducted under Condition 11.2.c satisfies this requirement if conducted within the allowable periodicity.
- c. For EU ID(s) 5 through 8 for each turbine which operates for 400 hours or more in any 12-month period monitor, record and report in accordance with Conditions 33.1 through 33.3 to demonstrate compliance with the short-term BACT NO<sub>x</sub> emission limit in Table B. If a turbine operates for less than 400 hours, use the results of the source test performed in accordance with Condition 11.2.b to demonstrate compliance with the short-term NO<sub>x</sub> concentration emission limit contained in Table B.

11.3. **CO Monitoring:** For EU ID(s) 1 through 11 to demonstrate compliance with the short-term CO emission limits contained in Table B, the Permittee shall conduct a CO emission source test no later than 12 months after the effective date of this permit and no less than once every five years thereafter. After the initial performance tests, substituting test data is allowed if the Permittee documents within the test plan, their intent to substitute testing for multiple turbines and if tests meet all other requirements for similar units that meet provisions described in Condition 33.1.b

11.4. The Permittee shall keep records, available for inspection, which demonstrate each turbine is maintained in good operating condition and in accordance with BPXA-established guidelines and operating procedures.

11.5. **SO<sub>2</sub> Monitoring.** For EU ID(s) 1 through 11, monitor, record and report in accordance with Condition 16 to demonstrate compliance with the short-term SO<sub>2</sub> emission limits contained in Table B.

11.6. **PM Monitoring:** For EU ID(s) 1 through 4, record and report in accordance with Condition 6.1 to demonstrate compliance with the short-term PM emission limit contained in Table B.

**11.7. Recordkeeping:**

- a. For each of EU ID(s) 5 through 10, calculate the monthly and the 12-month consecutive summation of emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, and PM. Use the emission factors found in Table C, or a representative emission factor obtained from performance test completed as required under Condition 11.1 or 11.3, along with the hours of operation and/or amount of fuel used, to calculate the monthly emissions for each unit. Use the most conservative of representative updated emission factors from source testing in these emission calculations.

**11.8. Reporting:**

- a. For EU ID(s) 5 through 10, report the monthly and the consecutive 12-month period summation of emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, and PM for each month of the reporting period, with each operating report required by Condition 88.
- b. For EU ID(s) 1 through 4 and 9 through 11, use the results of the source tests performed in accordance with Condition 11.2.a to annually certify compliance with the short-term NO<sub>x</sub> emission limits contained in Table B, both the concentration (ppmv) and loading rate (lb/hr).
- c. For EU ID(s) 5 through 8, use the results of the source tests performed in accordance with Condition 11.2.b or 11.2.c to annually certify compliance with the short-term NO<sub>x</sub> emission limit contained in Table B.
- d. For EU ID(s) 1 through 11, use the results of the source tests performed in accordance with Condition 11.3 to annually certify compliance with the short-term CO emission limits contained in Table B.
- e. For EU ID(s) 1 through 11, report the results obtained from source tests performed under Conditions 11.2.a through 11.2.c as set forth under Condition 81.
- f. For EU ID(s) 1 through 11, report the results obtained from source tests performed under Condition 11.3 as set forth Condition 81.

[Conditions 8.3b, 8.3c and 11.2, Construction Permit No. AQ0270CPT04, 10/13/09]  
[18 AAC 50.040(j) and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)]

- 11.9. Notify the Department per Condition 87 should the emissions of any air pollutant exceed the limit for that pollutant in Table B.

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

**Table B - Turbine BACT Emissions Limits**

Pollutant	EU ID(s)	Equipment Tag Number	Emission Limit (short-term) per Individual Turbine	Annual Emission Limit per Individual Turbine (tpy)
NO <sub>x</sub>	1, 2, 3 & 4	NGI-19-1883, NGI-19-1884, NGI-19-1885 and NGI-19-1886	125 ppmvd @ 15% O <sub>2</sub> and 282 lb/hr <sup>2</sup>	No limit
	5, 6, 7 & 8	NGI-19-1801, NGI-19-1802, NGI-19-1805 and NGI-19-1855	213 ppmvd @ 15% O <sub>2</sub>	999
	9 & 10	NGI-19-1806 and NGI-19-1856	85 ppmvd @ 15% O <sub>2</sub> and 130 lb/hr <sup>2</sup>	1,115
	11	NGI-19-1857	85 ppmvd @ 15% O <sub>2</sub> and 130 lb/hr <sup>2</sup>	No limit
CO	1, 2, 3 & 4	NGI-19-1883, NGI-19-1884, NGI-19-1885, and NGI-19-1886	10 ppmvd <sup>2</sup>	No limit
	5, 6, 7 & 8	NGI-19-1801, NGI-19-1802, NGI-19-1805 and NGI-19-1855	0.17 lb/MMBtu	193
	9 & 10	NGI-19-1806 and NGI-19-1856	0.17 lb/MMBtu and 20 ppmvd <sup>3</sup>	269
	11	NGI-19-1857	20 ppmvd <sup>2</sup>	No limit
SO <sub>2</sub> /H <sub>2</sub> S	1 through 4	NGI-19-1883, NGI-19-1884, NGI-19-1885 and NGI-19-1886	300 ppmv H <sub>2</sub> S in fuel (not to be exceeded at any time) <sup>2</sup>	No limit
	5,6,7 & 8	NGI-19-1801, NGI-19-1802, NGI-19-1805 and NGI-19-1855	No limit	6.5 <sup>3</sup>
	9 & 10	NGI-19-1806 and NGI-19-1856	300 ppmv H <sub>2</sub> S in fuel <sup>2</sup>	9.0 <sup>3</sup>
	11	NGI-19-1857		No limit
PM	1, 2, 3 & 4	NGI-19-1883, NGI-19-1884, NGI-19-1885 and NGI-19-1886	14.0 lb/MMscf <sup>3</sup>	No limit
	5, 6, 7 & 8	NGI-19-1801, NGI-19-1802, NGI-19-1805 and NGI-19-1855	No limit	16
	9 & 10	NGI-19-1806 and NGI-19-1856		22
	11	NGI-19-1857		No limit
Opacity	5,6,7,8,9 & 10	NGI-19-1801, NGI-19-1802, NGI-19-1805, NGI-19-1855, NGI-19-1806 and NGI-19-1856	10%	

Table Notes:

- 1 – NO<sub>x</sub> turbine emissions limitations refer to 15% O<sub>2</sub> at manufacturers rated peak load (kJ/kW-hr).
- 2 – Emission limit is from Construction Permit AQ0270CPT04
- 3 – Emission limit is from EPA permit PSD-X81-13, as amended 8/29/1997.

**Table C – Turbine Emission Factors**

EU ID(s)	NO <sub>x</sub>	CO	PM	SO <sub>2</sub>
5 through 10	Representative source test data, if available. Otherwise use Allowable concentration	Representative source test data, if available. Otherwise use 0.082 lb/MMBtu (AP-42, 4/00)	Representative source test data, if available. Otherwise use 0.0073 lb/MMBtu (AP-42, 7/98)	Actual monthly H <sub>2</sub> S concentration

*Heater BACT and Owner-Requested Emission Limits, EU ID(s) 12 through 14*

**12.** The Permittee shall limit actual emissions from the heaters, EU ID(s) 12 through 14, as indicated in Table D below.

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

[Federal Prudhoe Bay Unit PSD Permit No. PSD-X81-13, as amended 8/29/1997]

12.1. The Permittee shall calculate the monthly and the 12-month consecutive summation of emissions of NO<sub>x</sub>, CO, PM, and SO<sub>2</sub> for each of EU ID(s) 12 through 14. Use the emission factors found in Table E, along with the hours of operation and/or amount of fuel used, to calculate the monthly emissions for each unit. Updated emission factors from source testing shall be used in these emission calculations.

**12.2. NO<sub>x</sub> and CO Monitoring:**

- a. For EU ID(s) 12 through 14 to demonstrate compliance with the BACT short-term NO<sub>x</sub> and CO emission limits the Permittee shall conduct a NO<sub>x</sub> emission source test and a CO emission source test no later than 12 months after the effective date of this permit and every five years thereafter on any one of EU ID(s) 12 through 14.
- b. For EU ID(s) 12 through 14, use the results of the latest source tests performed in accordance with Condition 12.2.a to annually certify compliance with the short-term NO<sub>x</sub> and CO emission limit contained in Table D.

**12.3. Reporting:**

- a. For EU ID(s) 12 through 14, report the results obtained from source tests performed under Condition 12.2.a as set forth under Condition 81.
- b. For EU ID(s) 12 through 14, report in the operating report required by Condition 88 the monthly and the consecutive 12-month period summation of emissions of NO<sub>x</sub>, CO, PM, and SO<sub>2</sub> calculated under Condition 12.1 for each month of the reporting period.

12.4. Notify the Department per Condition 87 should the emissions of any air pollutant exceed the limit for that pollutant in Table D.

**Table D - Heater BACT Emissions Limits<sup>1</sup>**

Pollutant	EU ID(s)	Equipment Tag Number	Emission Limit (short-term) per Heater	Annual Emission Limit per Individual Heater (tpy)
NO <sub>x</sub>	12, 13 & 14	NGI-19-1401, NGI-19-1402 and NGI-19-1403	0.08 lb/MMBtu <sup>1</sup>	84
CO			0.061 lb/MMBtu <sup>1</sup>	64
PM			No limit	12

Table Notes: 1 – All emission limits are from EPA permit PSD-X81-13, as amended 8/29/1997.

**Table E – Heater Emission Factors**

EU ID(s)	NO <sub>x</sub>	CO	PM	SO <sub>2</sub>
12 through 14	Representative source test emission factor if available. Otherwise, use 0.08 lb/MMBtu	Representative source test emission factor if available. Otherwise use 0.061 lb/MMBtu (allowable)	Representative source test data, if available. Otherwise use 0.0075 lb/MMBtu (AP-42, 7/98)	Actual monthly H <sub>2</sub> S concentration

*Engine BACT Emission Limits, EU ID 15*

**13.** The Permittee shall limit actual emission rates from the engine, EU ID 15, as indicated in Table F below.

[Condition 3 and Exhibit B, Permit to Operate No. 9273-AA016, as amended through 12/23/96]

13.1. To show compliance with the short-term NO<sub>x</sub>, CO, and PM emission limits contained in Table F, the Permittee shall keep records, available for inspection, which demonstrate that the engine is maintained in good operating condition and in accordance with BPXA-established guidelines and operating procedures.

13.2. **NO<sub>x</sub>, CO and PM Monitoring.** The Permittee shall conduct a NO<sub>x</sub>, CO, and PM emission source test on EU ID 15 no later than 12 months after the effective date of this permit and every five years thereafter.

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

[Condition 8, Permit to Operate No. 9273-AA016, as amended through 12/23/96]

- a. For EU ID 15, use the results of the source tests performed in accordance with Condition 13.2 to annually certify compliance with the short-term NO<sub>x</sub>, CO and PM emission limits contained in Table F.
- b. For EU ID 15, submit copies of the results obtained from Condition 13.2 with the operating report required by Condition 88 submitted during the reporting period in which the sources test results are submitted under Condition 81.

- 13.3. Notify the Department per Condition 87 should the emissions from EU ID 15 of NO<sub>x</sub>, CO or PM exceed the limit for that pollutant in Table F.

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

**Table F - Engine BACT Emissions Limits<sup>1</sup>**

Pollutant	EU ID	Equipment Tag Number	Emission Limit (short-term)
NO <sub>x</sub>	15	NGI-19-2890	146.4 lb/hr
CO			2.8 lb/hr
PM			1.0 g/hp-hr

Table Notes: 1. All emission limits refer to full-load ISO conditions, sea-level and 59°F per Permit to Operate 9273-AA016.

*Engine Hours of Operation Limit, EU ID(s) 15 through 18 (BACT Limit for EU ID 15 Only)*

14. The Permittee shall limit hours of operation for each of EU ID(s) 15 through 18 to no more than 200 hours per consecutive 12-month period.

[Condition 3 and Exhibit B, Permit to Operate No. 9273-AA016, as amended through 12/23/96]

- 14.1. Monitor and record the monthly total hours of operation (emergency and non-emergency hours) and the consecutive 12-month period summation of operational hours for each of EU ID(s) 15 through 18.
- 14.2. For each month of the reporting period, report the data recorded under Condition 14.1 with the operating report required by Condition 88.
- 14.3. Report under Condition 87 if the consecutive 12-month total hours of operation exceed the limit in Condition 14 for EU ID(s) 15, 16, 17, or 18.

[18 AAC 050.04 (j) and 18 AAC 50.326(j)]  
 [40 C.F.R. 71.6(a)]

**Fuel Consumption Monitoring, EU ID(s) 1 through 23**

15. The Permittee shall maintain and operate a monitoring device (e.g. a fuel gas meter) or provide other means of estimating fuel consumption to determine the volume of fuel gas consumed by the turbines, EU ID(s) 1 through 11, and the heaters, EU ID(s) 12 through 14. For other fuel-burning equipment, EU ID(s) 15 through 23, the fuel consumption may be estimated.

[Condition 7 and Exhibit C, Permit to Operate No. 9273-AA016, as amended through 12/23/96]

- 15.1. Fuel meters, if used, for EU ID(s) 1 through 4 and 9 through 11 must be calibrated to be accurate within ±5%, as verified by vendor specifications and calibration maintenance logs.
- 15.2. Monitor and record the monthly fuel consumption for each EU ID(s) 1 through 4 and 9 through 11, EU ID(s) 5 through 8 combined, EU ID(s) 12 through 14 combined, EU ID(s) 15 through 18 combined, and EU ID(s) 19 through 23 combined.

- 15.3. Report with the operating report under Condition 88, the monthly total fuel consumption (MMscf/month or gallons/month) for each EU ID(s) 1 through 4 and 9 through 11, EU ID(s) 5 through 8 combined, EU ID(s) 12 through 14 combined, EU ID(s) 15 through 18 combined, and EU ID(s) 19 through 23 combined, and the stationary source total fuel consumption for each month of the reporting period.

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

### **Fuel Sulfur Content, EU ID(s) 1 through 23**

- 16. SO<sub>2</sub> BACT for Turbine EU ID(s) 1 through 4 and Units 9 through 11.** Limit the H<sub>2</sub>S content of the fuel gas burned in EU ID(s) 1 through 4 and 9 through 11 to no more than 300 ppmv at any time.

- 16.1. Determine compliance no less than once a month with the fuel gas H<sub>2</sub>S content limit as follows:
- a. Determine the fuel gas H<sub>2</sub>S content of the fuel using ASTM D 4810-88, ASTM D 4913-89, Gas Producer's Association (GPA) method 2377-86, or an alternative analytical method approved by the Administrator.
  - b. The fuel gas H<sub>2</sub>S analysis required under this condition 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.
- 16.2. Keep records of the analysis conducted as required in Condition 16.1.a.
- 16.3. Report the monthly fuel gas H<sub>2</sub>S concentration, for each month of the reporting period, in each operating report described by Condition 88.
- 16.4. Report Excess Emissions and Permit Deviations in accordance with Condition 87, should the fuel gas H<sub>2</sub>S concentration exceed the limit in Condition 16.

[Condition 13, Construction Permit No. AQ0270CPT04, 10/13/09]  
[18 AAC 50.040(j) and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)]

### **Ambient Air Quality Protection Requirements**

- 17.** The Permittee shall limit the fuel gas H<sub>2</sub>S content to no more than 105 ppmv at any time, in each of the fuel gas-fired EU ID(s) 1 through 14 and 19 through 23.

- 17.1. Monitor, record and report as required in Conditions 16.1, 16.2, and 16.3.
- 17.2. Report Excess Emissions and Permit Deviations in accordance with Condition 87 should the fuel gas H<sub>2</sub>S concentration exceed the limit listed in Condition 17.

[Condition 16, Construction Permit No. AQ0270CPT04, 10/13/09]  
[18 AAC 50.040(j) and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)]

**18.** The Permittee shall not burn liquid fuel with a sulfur concentration that exceeds 0.11 percent by weight in EU ID(s) 15 through 18.

18.1. Monitor, record and report as set out in Condition 9.8.

18.2. Report Excess Emissions and Permit Deviations in accordance with Condition 87, if the liquid fuel sulfur content exceeds the limit in Condition 18.

[Condition 17, Construction Permit No. AQ0270CPT04, 10/13/09]  
[18 AAC 50.040(j) and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)]

**19.** The Permittee shall construct and maintain vertical uncapped exhaust stacks for the three emergency generators EU ID(s) 15 through 17, except when the liquid fuel sulfur content at CGF is less than or equal to 0.019 percent, by weight. When the fuel sulfur content is less than or equal to 0.019 percent, the stacks may be capped or have a horizontal discharge. The uncapped stack requirement does not preclude the use of flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plume.

19.1. Include in the operating report described by Condition 88, the stack configuration (orientation and capped or uncapped) for the emergency generators (EU ID(s) 15 through 17) for each applicable month of the reporting period.

19.2. Notify the Department under Excess Emissions and Permit Deviations in accordance with Condition 87 if any of the emergency generators, (EU ID(s) 15 through 17) are operated with horizontal or capped exhaust stacks and the liquid fuel sulfur concentration exceeds 0.019 percent by weight.

[Condition 18, Construction Permit No. AQ0270CPT04, 10/13/09]  
[18 AAC 50.040(j) and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)]

### **Hours of Operation Monitoring, EU ID(s) 1 through 18**

**20.** The Permittee shall monitor, record and report the hours of operation as follows:

20.1. Monitor and record the monthly operating time for each EU ID(s) 1 through 18.

[Exhibit D Item 3, Permit to Operate No. 9273-AA016, as amended through 12/23/96]

20.2. Report in the operating report under Condition 88, the data recorded under Condition 20.1, for each month of the period covered by the report.

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

*Stationary Source-Wide Specific Requirements*

**Insignificant Emission Units**

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

21.1. **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)]

21.2. **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)]

21.3. **Sulfur Standard:** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO<sub>2</sub>, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours.

[18 AAC 50.055(c)]

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

- a. The Permittee shall submit the certification of compliance of Condition 89 based on reasonable inquiry;
- b. The Permittee shall comply with the requirements of Condition 70;
- c. The Permittee shall report in the operating report required by Condition 88 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; and
- d. No other monitoring, recordkeeping or reporting is required.

[18 AAC 50.346(b)(4)]

## ***Section 4. Federal Requirements***

### **Emission Units Subject to Federal NSPS Subpart A**

**22. NSPS Subpart A Notification.** For any affected facility<sup>6</sup> or existing facility<sup>7</sup> regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

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

22.1. 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]

22.2. 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]

22.3. 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]

22.4. the date of a continuous monitoring system performance demonstration, postmarked not less than 30 days prior to such date;

[40 C.F.R. 60.7(a)(5), Subpart A]

22.5. the anticipated date for conducting the opacity observations required by 40 C.F.R. 60.11(e)(1), including, if appropriate, a request for the Department to provide a visible emissions reader during a performance test, postmarked not less than 30 days prior to such date;

[40 C.F.R. 60.7(a)(6), Subpart A]

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<sup>6</sup> *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.

<sup>7</sup> *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2.

- 22.6. that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required in lieu of Method 9 observation data as allowed by 40 C.F.R. 60.11(e)(5), postmarked not less than 30 days prior to the date of the performance test; and

[40 C.F.R. 60.7(a)(7), Subpart A]

- 22.7. any proposed replacement of components at 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)]

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

- 23. 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 ID(s) 1 through 14, 19 through 22, and 26, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for any of EU ID(s) 1 through 14, 19 through 22, and 26 is inoperative.

[18 AAC 50.040(a)(1)]

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

**24. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report.**

Except as provided for in Condition 25, the Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report " (EEMSP)<sup>8</sup> any time a limit in Condition 32 has been exceeded, as described in this condition. The Permittee shall submit the EEMSP reports to EPA semiannually postmarked no later than 30 days after the end of the last six-month period.

[18 AAC 50.040(a)(1)]  
[40 C.F.R. 60.7(c), Subpart A]  
[40 C.F.R. 60.334(j), Subpart GG]  
[40 C.F.R. 60.49b(w), Subpart Db]

24.1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) and Condition 30.4, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

24.2. Specific identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU ID(s) 1 through 14 and 26; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

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

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

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

**25. NSPS Subpart A Summary Report Form.** The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU ID(s) 1 through 14 and 26 as follows:

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

25.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form unless the EEMSP report described in Condition 24 is requested by the Administrator, or

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

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<sup>8</sup> The Federal EEMSP report is not the same as the State excess emission report required by Condition 87.

- 25.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP** described in Condition 24.

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

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

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

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

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

- 26.2. Conduct source tests under conditions specified by EPA to be based on representative performance of the affected facility.

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

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

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

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

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

- 27. 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 each of EU ID(s) 1 through 14, 19 through 22, and 26 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 records, and inspections of each of EU ID(s) 1 through 14, 19 through 22, and 26.

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

**28. 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 31, 32, 33, and 34 through 41, 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 ID(s) 1 through 14, 19 through 22, and 26 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

**29. NSPS Subpart A Concealment of Emissions.** The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Condition 32, 33 34, or 41. 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]

**30. NSPS Subpart A, Monitoring.** For a Continuous Monitoring System (CMS) required under Condition 32.1.b, the Permittee shall:

[18 AAC 50.040(a)(1)]  
[40 C.F.R. 60.13(a) Subpart A]

30.1. Install and operate the CMS prior to a performance test conducted under Condition 26, including completion of manufacturer's written requirements or recommendations for installation, operation, and calibration of device.

[40 C.F.R. 60.13(b), Subpart A]

30.2. Check the zero (or low level value between zero and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with 40 C.F.R. 60.13(d).

[40 C.F.R. 60.13(d)(1), Subpart A]

30.3. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 30.2, keep all CMS's in operation continuously and as follows:

[40 C.F.R. 60.13(e), Subpart A]

a. complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 C.F.R. 60.13(e)(2), Subpart A]

30.4. Reduce data in accordance with:

[40 C.F.R. 60.13(h), Subpart A]

a. Do not include data recorded during periods of CMS breakdowns, repairs, calibration checks, and zero and span adjustments in the data averages computed under this condition.

- b. Convert all excess emission into units of the standard used in Condition 32.1.b. After conversion the Permittee may round data to the same number of significant digits as used in the condition.
- c. The Permittee may use an arithmetic or integrated average of all data, and record data in reduced or non-reduced form (e.g., ppm pollutant percent O<sub>2</sub> or ng/J of pollutant).

**31. NSPS Subpart A General Control Device Requirements.** The Permittee shall monitor EU ID(s) 19 through 22, flares used as control devices for EU ID 26, to ensure that they are operated and maintained in conformance with 40 C.F.R. 60.18(c)(1)- (c)(4), (c)(6), (d), (e), (f)(1)-(f)(5), and 40 C.F.R. 60.485(g).

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

31.1. Permittee shall ensure that EU IDs 19 through 22 are:

- a. 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
- b. operated with a flame present at all times when emissions may be vented to them.

[40 CFR 60.18(c)(1 & 2) & 60.18(e)]

31.2. The Permittee shall monitor EU IDs 19 through 22 to ensure that they are operated and maintained in conformance with their designs.

[40 CFR 60.18(d)]

31.3. Momentarily observe the exhaust from EU ID(s) 19 through 22 during normal operation for indications of visible emissions (VE). Keep a log of the observations in accordance with Condition 31.5. Observations may be made via remote video camera monitoring from the control room if an operator cannot see the exhaust of EU ID(s) 19 through 22 through a window or cannot go outside for safety or weather reasons to make observations.

- a. **Initial Monitoring Frequency:** Observe the exhaust during each calendar day that any of EU ID(s) 19 through 22 operates.
- b. **Reduced Monitoring Frequency:** After EU ID(s) 19 through 22 have been observed on 30 operating days, if during normal operations the emission units operated without visible emissions in the exhaust for those 30 days, then observe the exhaust at least once in every calendar month that EU ID(s) 19 through 22 operate.

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

31.4. Except as provided in Condition 31.4.e, if visible emissions are observed at any time during normal flaring operations of EU ID(s) 19 through 22, the Permittee shall conduct a 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 40 C.F.R. 60.18(c)(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:

[18 AAC 50.040(j) and 50.326(j)]

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

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

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

- a. Determine whether the flares are being properly operated and maintained.
- b. Initiate corrective actions, if necessary, to eliminate visible emissions from the emission unit(s) within 24 hours of the Method 22 VE observation;
- c. Keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions; and
- d. After completing the corrective actions, conduct a follow-up VE evaluation in accordance with 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.
- e. Visible emissions observed during startup, shutdown or malfunction shall not be considered a violation of 40 C.F.R. 60.18(c)(1).

[40 C.F.R. 60.11(c), Subpart A]

31.5. For observations of visible emissions per Condition 31.1 and for any Method 22 observations per Condition 31.4, record the following information in a written log for each observation of EU ID(s) 19 through 22:

- a. From Table A, the ID of the emission unit observed;
- b. The date, time, and duration of the observation;
- c. For observations conducted per:
  - (i) Condition 31.1, whether visible emissions are present or absent in the exhaust plume, or
  - (ii) Condition 31.4, accumulated time visible emissions are present in the exhaust;
- d. A description of the background to the exhaust during the observation;
- e. Name and location of the person making the observation; and
- f. Keep records in accordance with Condition 31.4.c.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]

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

- 31.6. The Permittee shall monitor the presence of the flare pilot using a thermocouple, infra-red/ultra-violet flare pilot flame monitoring device, or other equivalent device.
- [40 C.F.R. 60.18(c)(2) & (f)(2), Subpart A]  
[40 C.F.R. 60.485(g)(2), Subpart VV]  
[EPA Region X letter, 9/1/05, Re: Flare Pilot Flame Monitoring]
- a. The Permittee shall maintain records of all periods of operation during which the flare pilot flame is absent.
- [40 C.F.R. 60.7, Subpart A]
- 31.7. The Permittee shall install and operate a continuous flow monitor and composition analyzer that provides a record of the vent stream flow and composition, either in total VOC or Btu content to each flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour. The monitors shall be calibrated every two years to meet the following accuracy specifications: the flow monitor shall be  $\pm 5.0\%$ , temperature monitor shall be  $\pm 2.0\%$  at absolute temperature, and pressure monitor shall be  $\pm 5.0$  mm Hg.
- a. If the Permittee elects to monitor VOCs, then the calibration of the analyzer shall follow procedures and requirements of Section 10.0 found in 40 C.F.R. Part 60, Appendix B, Performance Specification 9. Net heating value of the gas combusted in each flare shall be calculated according to the equation given in 40 C.F.R. 60.18(f)(3).
- b. If the Permittee elects to use gas chromatography to measure the gas contribution, then the calibration of the analyzer shall follow procedures and requirements of Section 10.0 found in 40 C.F.R. Part 60, Appendix B, Performance Specification 9. Net heating value of the gas combusted in each flare shall be calculated according to the equation given in 40 C.F.R. 60.18(f)(3).
- c. If a calorimeter is used, then the calorimeter shall be installed, operated, and maintained in accordance with the manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare in Btu/scf.

- 31.8. The Permittee shall determine the actual exit velocity of EU ID(s) 19 through 22 using the methods outlined in 40 C.F.R. 60.18(f)(4) or by an alternate method approved by the Administrator.

[40 C.F.R. 60.18(c)(4) & (f)(4), Subpart A,  
[40 C.F.R. 60.485(g)(7), Subpart VV]

[EPA Region X letter, 8/22/05, Re: 60.18 Flare Exit Velocity Demonstration Waiver from Performance Test]

- a. 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(j), 7/25/08 and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)(3)(ii)]

- 31.9. In accordance with Condition 87 report excess emissions or permit deviations as follows:

- a. The dates and reasons for failure to conduct monitoring or recordkeeping per Condition 31.1, 31.4, 31.5, 31.6 or 31.7.
- b. When the exhaust of any of EU ID(s) 19 through 22 is visible for more than a total of 5 minutes during any 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 ID(s) 19 through 22.
- d. When the heating value of flared gas is less than 200 Btu/scf as measured by Condition 31.7.
- e. When the actual exit velocity of any of EU ID(s) 19 through 22 obtained as a result of tests conducted per Condition 31.7 exceeds the maximum permitted exit velocity determined in accordance with 40 C.F.R. 60.18(f)(5).

[18 AAC 50.040(j), 7/25/08 and 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)(3)(iii)]  
[40 C.F.R. 60.11(c) and 60.18(c)(3)(ii), Subpart A]

- 31.10. Submit with the operating report required under Condition 88, for the period covered by the report, the following:

- a. The number of days that VE observations per Condition 31.1 were made, and the dates, if any, that a Method 22 VE per Condition 31.4 was observed;
- b. Copies of records required under Conditions 31.4.c, 31.5, 31.6.a and 31.9.

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

**Steam Generating Units Subject to NSPS Subpart Db, EU ID(s) 12 through 14**

- 32. NSPS Subpart Db Standards for NO<sub>x</sub>:** At all times, including periods of startup, shutdown, and malfunction, the Permittee shall not cause to be discharged into the atmosphere from EU ID(s) 12 through 14 any gases that contain NO<sub>x</sub> (expressed as NO<sub>2</sub>) in excess of 0.10 lb/MMBtu (low heat release, 30-day rolling average).

[18 AAC 50.040(a)(2)(C)]  
[40 C.F.R. 60.44b(a)(1), 60.44b(h), 60.44b(i) & 60.46b(a), Subpart Db]

**32.1. Monitoring:** The Permittee shall:

- a. upon request, determine compliance with the NO<sub>x</sub> emission standard of Condition 32 in accordance with 40 C.F.R. 60.46b(e)(4);  
[40 C.F.R. 60.46b(e)(4), Subpart Db]
- b. install, calibrate, maintain, and operate a CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere in accordance with 40 C.F.R. 60.48b(c), (d), (e), (f) and (g).  
[40 C.F.R. 60.48b(b)(1), Subpart Db]
- c. When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 or Method 7A of 40 C.F.R. 60 Appendix A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each operating day, in at least 22 out of 30 successive operating days.  
[40 CFR 60.48(f), Subpart Db]

**32.2. Recordkeeping:** The Permittee shall:

- a. **NSPS Subpart Db Fuel Consumption Recordkeeping.** For each EU ID(s) 12 through 14, the Permittee shall record the amounts of each fuel combusted during each day and calculate the annual capacity factor for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.  
[18 AAC 50.040(a)(2)(C)]  
[40 C.F.R. 60.49b(d) & (o), Subpart Db]
- b. Record the output of the CEMS in Condition 32.1.b; and
  - (i) Calendar date;
  - (ii) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;
  - (iii) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 unit operating days;

- (iv) Identification of the unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions limit under Condition 32, with the reasons for such excess emissions as well as a description of corrective actions taken;
  - (v) Identification of the unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
  - (vi) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
  - (vii) Identification of the “F” factor used for calculations, method of determination, and type of fuel combusted;
  - (viii) Identification of the times when the pollutant concentration exceeded the full span of the CEMS;
  - (ix) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
  - (x) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Condition 32.1.b.  
[40 CFR 60.49b(g)(1) – (10), Subpart Db]
- c. maintain records in accordance with 40 C.F.R. 60.49b(g).  
[40 C.F.R. 60.49b(g), Subpart Db]

**32.3. Reporting:** The Permittee shall submit reports as follows:

[18 AAC 50.040(a)(2)(C)]

- a. Submit to the Department a copy of the fuel combustion and annual capacity records required to be kept under Condition 32.2.a with the operating report required by Condition 88 for the period covered by the report.  
[18 AAC 50.040(j) & 50.326(j)]  
[40 C.F.R. 71.6(a)(3) & (c)(6)]
- b. Except as allowed under Condition 32.3.c, submit semi-annual reports to the Administrator of the data recorded under Condition 32.2.b postmarked by the 30<sup>th</sup> day following the end of the reporting period.  
[18 AAC 50.040(a)(2)(C)]  
[40 C.F.R. 60.49b(i), (w), Subpart Db]

- c. As an alternative to the reporting requirement of Condition 32.3.b, the Permittee may submit electronic quarterly reports. The format of each quarterly electronic report shall be coordinated with the Department. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement per Condition 84 indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period.

[18 AAC 50.040(a)(2)(C)]  
[40 C.F.R. 60.49b(v), Subpart Db]

- d. Submit excess emissions reports as set forth in Conditions 24 and 25 to the Department and to the Administrator. Excess emissions are defined for this condition as any calculated 30-day rolling average NO<sub>x</sub> emission rate, as determined under Condition 32.1.a, that exceeds the applicable emission limit in Condition 32.

[40 CFR 60.49b(h)(2) & (4), Subpart Db]

### **Turbines Subject to NSPS Subpart GG, EU ID(s) 1 through 11**

- 33. NSPS Subpart GG NO<sub>x</sub> Standard.** The Permittee shall not allow the exhaust gas concentration of NO<sub>x</sub> from EU ID(s) 5 through 8 to exceed 213 ppmv at 15 percent O<sub>2</sub> dry exhaust basis and from EU ID(s) 9 through 11 to exceed 176 ppmv at 15 percent O<sub>2</sub> dry exhaust basis.

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

- 33.1. **Monitoring.** The Permittee shall comply with the following:

[18 AAC 50.040(j) and 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 11 and 33 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 33.1.a(i) or 33.1.a(ii).
- (i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90% of the limit shown in Conditions 11 and 33, the Permittee shall conduct a NO<sub>x</sub> and O<sub>2</sub> source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A by the schedule below:
- (A) Within 1 year of the effective date of this permit if the most recent source test or substitute source test for the affected unit 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 33.1.a(i)(B)) 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% of the limit shown in Conditions 11 and/or 33, the Permittee shall conduct a NO<sub>x</sub> and O<sub>2</sub> 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% of the applicable limits of Conditions 11 and/or 33.
- b. **Substituting Test Data.** The Permittee may use a Method 20, or Method 7E and either Method 3 or 3A test under Condition 33.1.a performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if
- (i) the Permittee demonstrates that test results are less than or equal to 90 percent of the applicable emission limits of Conditions 11 and/or 33, and are projected under Condition 33.1.c to be less than or equal to 90 percent of the applicable limit at maximum load; and
  - (ii) for any source test done after the issuance date of this permit, the Permittee identifies in a source test plan under Condition 79.
    - (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) operates under close to identical ambient conditions;
      - (3) is the same make and family and has identical injectors and combustor; and
      - (4) uses the same fuel type from the same supply origin.
  - (iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90% of the emission limit of Condition 33.
  - (iv) The Permittee may substitute a test conducted under Condition 11 to satisfy Condition 33.1.a if applicable.

c. **Load.** The Permittee shall:

- (i) conduct all tests under Condition 33.1 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 33.1 to predict the highest load at which emissions will comply with the applicable limits in Conditions 11 and/or 33;
  - (B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit of Condition 33;
  - (C) the Permittee shall comply with a written finding prepared by the Department that
    - (1) the information is inadequate for the Department to reasonably conclude that compliance is assured at any load greater than the test load, and that the Permittee must not exceed the test load;
    - (2) the highest load at which the information is adequate for the Department to reasonably conclude that compliance assured is less than maximum load, and the Permittee must not exceed the highest load at which compliance is predicted, or

- (3) the Permittee must retest during a period of greater expected demand on the turbine; and
- (D) the Permittee may revise a load limit by submitting results of a more recent Method 20 or 7E and either Method 3 or 3A test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 33.1.c(iii)(A); the new limit is subject to any new Department finding under Condition 33.1.c(iii)(C), and
- (iv) In order to perform a Method 20 or 7E and either Method 3 or 3A emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 33.1.c(iii).
- (v) For the purposes of Conditions 33.1 through 33.3, maximum load means the hourly average load that is the smallest of
  - (A) 100 percent of manufacturer's design capacity of the gas turbine at ISO standard day conditions;
  - (B) the highest load allowed by an enforceable condition that applies to the turbine; or
  - (C) the highest load possible considering permanent physical restraints on the turbine or the equipment which it powers.

33.2. **Recordkeeping.** The Permittee shall:

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

- a. comply with the following for each turbine for which a demonstration under Condition 33.1.c(iii) does not show compliance with the applicable limits of Conditions 11 and/or 33 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 33.2.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 33.1.c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 33.1.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Conditions 11 and/or 33, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

**33.3. Reporting.** The Permittee shall:

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

- a. report in the operating report required by Condition 88 the list of each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 33.1.c(iii)
- (i) the load limit;
  - (ii) the turbine identification; and
  - (iii) the highest load recorded under Condition 33.2.a during the period covered by the operating report.
- b. In each operating report under Condition 88 for each turbine for which Condition 33.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify
- (i) the turbine;
  - (ii) the highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and
  - (iii) any turbine that operated for 400 or more hours.
- c. The Permittee shall report under Condition 87 if
- (i) a test result exceeds the emission standard;
  - (ii) Method 20 or 7E and Method 3 or 3A testing is required under Condition 33.1 but not performed, or

- (iii) the turbine was operated at a load exceeding that allowed by Conditions 33.1.c(iii)(B) and 33.1.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

**34. NSPS Subpart GG Sulfur Standard.** The Permittee shall not allow the sulfur content for the fuel burned in EU ID(s) 1 through 11 to exceed 0.8 percent by weight.

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

**34.1. 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 34.1.b and 34.1.c. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 34.2. 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 34.1.a and 34.1.c, 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)<sup>9</sup> 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

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<sup>9</sup> 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.

- (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]

- 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 and Alternate H<sub>2</sub>S Sampling Method 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]

[EPA Region X letter, 7/13/93, 8/20/93, 10/18/93 and 08/19/96, Re: Custom Fuel Monitoring Schedule]

[EPA Region X letter, 10/2/97, Re: Request for Alternate H<sub>2</sub>S Sampling Method]

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

[18 AAC 50.040(j) & 50.326(j)]

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

- (i) **Gaseous fuel.** If the Permittee elects not to demonstrate sulfur content using options in Condition 34.1.b or Condition 34.1.c, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded under Condition 34.1.a once per unit operating day.

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

- (ii) **Custom schedules.** Notwithstanding the requirements of Condition 34.1.d(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)(3), Subpart GG]

34.2. **Test Methods and Procedures.** If the Permittee periodically determines the sulfur content of the fuel combusted in the turbine under Condition 34.1.a and Condition 34.1.d, 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:

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

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

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

b. The fuel analyses required under Conditions 34.1 and 34.2 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) & 50.326(j)]  
[40 C.F.R. 60.335(b)(11), Subpart GG]

34.3. **Recordkeeping:** Keep records of analyses conducted under Condition 34.1.

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

34.4. **Reporting:** The Permittee shall:

a. for each affected unit for which the Permittee elects to periodically determine the fuel sulfur content under Condition 34.1.a, 34.1.c, or 34.1.d,

(i) annually report the results of all sulfur monitoring to EPA and send a copy to the Department by the 30<sup>th</sup> day following the end of each calendar year;

[EPA Letter, Re: Custom Fuel Monitoring Schedule, 10/18/93]

(ii) include with the report submitted under Condition 34.4.a(i) a report of excess emissions and monitoring system downtime in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 24 and as defined under 40 C.F.R. 60.334(j)(2). Excess emissions shall be reported for all periods of unit operation, including startups, shutdowns, and malfunctions.

(iii) If periodic gaseous fuel sulfur monitoring is not required to be conducted because the demonstration under Condition 34.1.b has been made, reporting under Conditions 24, 25, and this condition is not required.

b. include a copy of the records required by Condition 34.3 with the operating report required by Condition 88 for the period covered by the report; and

- c. report under Condition 87 if
  - (i) a test result exceeds the limit in Condition 34;
  - (ii) monitoring is required under Condition 34.1 but not performed; or
  - (iii) any reporting required under Condition 34.4 is not completed.

**NSPS Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants, EU ID 26**

**35. NSPS Subpart KKK Standards: Pumps in Light Liquid Service (40 C.F.R. 60.482-2).**

Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of a leak<sup>10</sup>. If any pump is 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 41, it is exempt from the requirements of this condition.

- 35.1. 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.
- 35.2. 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) and (DD)]  
[40 C.F.R. 60.632(a), Subpart KKK]  
[40 C.F.R. 60.482-2(a)(2), (c) & (f) & 60.482-9, Subpart VV]

**36. NSPS Subpart KKK Standards: Compressors (40 C.F.R. 60.482-3).** Each affected compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, designed and operated in accordance with the provisions of 40 C.F.R. 60.482-3(b), (c) and (d). If a compressor is equipped with a closed vent system that complies with Conditions 41 and 41.1-41.5 (40 C.F.R. 60.482-10), it is exempt from the requirements of 40 C.F.R. 60.482-3(a) and (b).

[18 AAC 50.040(a)(2)(Z) and (DD)]  
[40 C.F.R. 60.632(a), Subpart KKK]  
[40 C.F.R. 60.482-3(a), (b), (c), (d) & (h), Subpart VV]  
[40 C.F.R. 60.482-10, Subpart VV]

- 36.1. Each sensor for the compressor barrier fluid systems shall be checked daily or shall be equipped with an audible alarm.
- 36.2. When a leak is detected<sup>11</sup>, 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.
- 36.3. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

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

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<sup>10</sup> A leak is defined for purposes of this condition as any indication of liquids dripping from the pump seal  
[40 C.F.R. 60.482-2(b)(2)]

<sup>11</sup> A leak is defined for purposes of this condition as any failure of the seal system, the barrier system, or both  
[40 C.F.R. 60.482-3(f)]

**37. NSPS Subpart KKK Standards: Pressure Relief Devices in Gas/Vapor Service.**

37.1. Except during pressure releases, each pressure relief device in gas/vapor service that vents to atmosphere shall be operated with no detectable emissions<sup>12</sup>, except as provided by Conditions 37.2 and 37.3.

[18 AAC 50.040(a)(2)(Z) and (DD)]  
[40 C.F.R. 60.632(a), Subpart KKK]  
[40 C.F.R. 60.482-4(a) & (b), Subpart VV]

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

37.2. In lieu of meeting the requirements of Conditions 37.1, 37.1.a and 37.1.b, 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.<sup>13</sup> 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 37.2.b and 37.2.c.
- b. When a leak is detected<sup>14</sup>, 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.

[40 C.F.R. 60.633(b), Subpart KKK]  
[40 C.F.R. 60.482-9 & 60.485(b), Subpart VV]

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<sup>12</sup> Emissions are detected as defined for this condition as any Method 21 reading of 550 ppm or greater above background [40 C.F.R. 60.482-4(a)]

<sup>13</sup> Pressure relief devices in gas/vapor service are exempt from the routing (quarterly) monitoring requirement of 40 C.F.R. 60.633(b)(1) [40 C.F.R. 60.633(e)].

<sup>14</sup> A leak is defined for this condition as any Method 21 reading of 10,000 ppm or greater [40 C.F.R. 60.633(b)(2)], or any evidence of a leak that the Permittee considers a leak.

- 37.3. Any pressure relief device equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of Condition 37.1, provided that 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.

[40 C.F.R. 60.482-4(d), Subpart VV]

**38. NSPS Subpart KKK Standards: Open-Ended Valves or Lines (40 C.F.R. 60.482-6).**

Each open-ended valve or line shall be equipped with a cap, blind flange, plug or a second valve and shall be operated in accordance with the provisions of 40 C.F.R. 60.482-6.

[18 AAC 50.040(a)(2)(Z) and (DD)]

[40 C.F.R. 60.632(a), Subpart KKK]

[40 C.F.R. 60.482-6(a), Subpart VV]

**39. NSPS Subpart KKK Standards: 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<sup>15</sup>, the valve shall be monitored monthly in accordance with 40 C.F.R. 60.485(b) using Method 21 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 39.1 and 39.2.

- 39.1. 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.

- 39.2. 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)(2)(Z) and (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, & 60.485(b), Subpart VV]

**40. NSPS Subpart KKK Standards: 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 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 40.1 and 40.2.

[18 AAC 50.040(a)(2)(Z) and (DD)]

[40 C.F.R. 60.632(a) & (d), Subpart KKK]

[40 C.F.R. 60.482-8(a) & 60.485(b), Subpart VV]

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<sup>15</sup> A leak is defined for this condition as any Method 21 reading of 10,000 ppm or greater [40 C.F.R. 60.482-7(b)], or any evidence of a leak that the Permittee considers a leak.

- 40.1. When a leak is detected<sup>16</sup>, 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) & (c)(1) & 60.482-9, Subpart VV]

- 40.2. 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]

**41. NSPS Subpart KKK Standards: Closed Vent Systems and Control Devices**

**(40 C.F.R. 60.482-10).** Closed vent systems and control devices (EU ID(s) 19 through 22) 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 ID(s) 19 through 22 shall be designed and operated to comply with 40 C.F.R. 60.18, as stated in Condition 31.

[18 AAC 50.040(a)(1) & (a)(2)(Z) and (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(a), (d) & (m), Subpart VV]

- 41.1. The Permittee shall monitor the control devices (EU ID(s) 19 through 22) 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]

- 41.2. For each closed vent system used to comply with applicable provisions of 40 C.F.R. 60.482-10, conduct an initial inspection in accordance with 40 C.F.R. 60.485(b) using Method 21 to determine the presence of leaks.

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

[40 C.F.R. 60.485(b), Subpart VV]

- 41.3. 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]

- 41.4. When a leak is detected<sup>17</sup>, 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. 60.482-9, Subpart VV]

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

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<sup>16</sup> A leak is defined for this condition as any Method 21 reading of 10,000 ppm or greater [40 C.F.R. 60.482-8(b)], or any evidence of a leak that the Permittee considers a leak.

<sup>17</sup> 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.

- 41.5. 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]

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

[18 AAC 50.040(a)(2)(Z), (a)(2)(DD) and 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]

- 42.1. When a leak is detected as specified by Condition 35, 36.2, 37.2.b, 39 or 40.1, 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 39 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.

[40 C.F.R. 60.635(a) & (b)(1), Subpart KKK]

[40 C.F.R. 60.486(b), Subpart VV]

- 42.2. For each leak detected as specified by Condition 35, 36.2, 37.2.b, 39 or 40.1, 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(b)(2), Subpart KKK]

[40 C.F.R. 60.486(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.

- 42.3. The following information pertaining to the design requirements for closed vent systems and control devices described in Conditions 36 and 41 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 41.1, to ensure that control devices are operated and maintained in conformance with their design and an explanation of why the parameter(s) was selected for the monitoring;
  - d. Periods when the closed vent systems and control devices required in Conditions 36 and 41 are not operated as designed, including periods when a flare pilot light in any of EU ID(s) 19 through 22 does not have a flame; and
  - e. Dates of startups and shutdowns of the closed vent systems and control devices required in Conditions 36 and 41.
- 42.4. 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 (§§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 35, 36, 37, 38, 39, 40, and 41;
- 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;
- c. The dates of each compliance test as required in 40 C.F.R. 60.482-4, as stated in Condition 37.1.b;
- d. The background level measured during each compliance test conducted per Condition 37.1.b;
- e. The maximum instrument reading measured at the equipment during each compliance test conducted per Condition 37.1.b;
- 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.

- 43. Reporting.** The Permittee shall submit to EPA and the Department semi-annual reports. The reports shall cover the periods January through June and July through December. The reports shall include the following:

[18 AAC 50.040(a)(1), (a)(2)(Z), (a)(2)(DD) and 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]

- 43.1. Process unit identification;
- 43.2. For each month during the semi-annual reporting period,
- a. number of valves for which leaks were detected as described in Condition 39;
  - b. number of valves for which leaks were not repaired as required in Condition 39.1;
  - c. number of pumps for which leaks were detected as described in Condition 35;
  - d. number of pumps for which leaks were not repaired as required in Condition 35.1;
  - e. number of compressors for which leaks were detected as described in Condition 36.2;
  - f. number of compressors for which leaks were not repaired as required in Condition 36.2;
  - 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 37.2.b;
  - i. number of pressure relief devices for which leaks were not repaired as required in Conditions 37.2.b and 37.2.c;
- 43.3. Dates of process unit shutdowns which occurred within the semi-annual reporting period; and
- 43.4. 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.

*National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart A*

**44. NESHAP Subpart A Requirements.**

- 44.1. The Permittee shall comply with the applicable requirements of 40 C.F.R. 63, Subpart A, for EU IDs 15 through 18 in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart ZZZZ.

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

- 44.2. For EU IDs 12 through 14, comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A described in Table 10 to Subpart DDDDD.

[18 AAC 50.040(j); 18 AAC 50.326(j)]  
[40 C.F.R. 71.6(a)(1)]  
[40 C.F.R. 63.7565 & Table 10, Subpart DDDDD]  
[40 C.F.R. 63.1-63.15, Subpart A]

**Existing Stationary Reciprocating Internal Combustion Engines (RICE) Subject to NESHAPS Subpart ZZZZ, EU ID(s) 15 through 18**

**45. NESHAP Subpart ZZZZ Stationary Reciprocating Internal Combustion Engines.**

After May 3, 2013, the Permittee shall comply with the applicable requirements of Conditions 46.1 through 48.3 for EU ID 18, and comply with Condition 46.5 for EU ID(s) 15 through 17.

[40 C.F.R. 71.6(a)(1)]  
[40 C.F.R. 63.6595(a)(1), Subpart ZZZZ]

- 46. NESHAP Subpart ZZZZ Requirements.** For EU ID 18, comply with the following requirements at all times:

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

*NESHAP Subpart ZZZZ General Monitoring, Operating and Maintenance Requirements*

- 46.1. **Good Air Pollution Control Practices.** At all times, operate and maintain EU ID 18, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU ID 18. 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), §63.6640(a), and Table 6 (Item 9) of Subpart ZZZZ]

- 46.2. **Startup and Idle Time.** For EU ID 18, 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) and Table 2c, Subpart ZZZZ]

- 46.3. **Operating Time Limits.** Comply with the following operating time limits for EU ID 18:

- a. Any operation of EU ID 18 for purposes other than emergency operation, maintenance and testing, and operation in non-emergency situations for up to 50 hours per calendar year, as permitted in Condition 46.3.d, is prohibited.
- b. There is no time limit on the use of EU ID 18 in emergency situations.
- c. EU ID 18 may be operated 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 EU ID 18 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. EU ID 18 may be operated up to 50 hours per calendar year in non-emergency situations, but those hours shall be counted towards the 100 hours per calendar year provided for maintenance and testing under Condition 46.3.c. 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.

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

- 46.4. Monitor EU ID 18 using a non-resettable hour meter at all times that the emission unit is operating except for monitor malfunctions, associated repairs, and required quality assurance or control activities.

[40 C.F.R. 63.6625(f), §63.6635(b), Subpart ZZZZ]

- 46.5. Comply with the following operating time limits for EU ID(s) 15 through 17:

- a. There is no time limit on the use of EU ID(s) 15 through 17 in emergency situations.

- b. EU ID(s) 15 through 17 may operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of EU ID(s) 15 through 17 should be minimized, but there is no time limit on the use of EU ID(s) 15 through 17 in emergency situations and for routine testing and maintenance, except as noted in Condition 14.
- c. EU ID(s) 15 through 17 may be operated up to 50 hours per calendar year in non-emergency situations. The 50 hours per calendar year of non-emergency usage of EU ID(s) 15 through 17 (each) 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.

[40 C.F.R. 63.6640(f)(2), Subpart ZZZZ]  
[40 C.F.R. 71.6(a)(3)]

***NESHAP Subpart ZZZZ Emissions Management Practices***

46.6. For EU ID 18, comply with the following, except as allowed by Condition 46.7:

- a. Change the oil and filter every 500 hours of operation or annually, whichever comes first<sup>18</sup>;
- b. Inspect the 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. 63.6602 and Table 2c (Item 1) of Subpart ZZZZ]

46.7. If EU ID 18 is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required by Condition 46.6, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice required by Condition 46.6 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 1 to Table 2c of Subpart ZZZZ]

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<sup>18</sup> The Permittee may use an oil analysis program as described in 40 C.F.R. 63.6625(i) to extend the specified oil change requirement in Condition 46.6.a.

***NESHAP Subpart ZZZZ Reporting***

**47.** The Permittee shall report as follows:

- 47.1. For EU ID 18, report to the Administrator any failure to perform the work practice on the schedule required by Condition 46.6 and the emergency use or unacceptable risk allowance of Condition 46.7 is used to justify the delay. If applicable, include in the report the Federal, State or local law under which the risk of performing the work practice on the required schedule was deemed unacceptable.

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

- 47.2. Notify the Department per Condition 87 if any of the requirements in Conditions 46.1 through 46.6 were not met.

[18 AAC 50.040(j)(4) and 50.326(j)(4)]

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

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

***NESHAP Subpart ZZZZ Recordkeeping***

**48.** For EU ID(s) 15 through 18, keep the following records:

- 48.1. For EU ID 18, records of maintenance conducted on the engine 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 37.1b. 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), 75 FR 9654, Subpart ZZZZ]

- 48.2. The hours of operation of EU ID(s) 15 through 18, including:

- a. the calendar year total number of hours spent for emergency operation and a description of what classified the operation as an emergency; and
- b. the calendar year total number of hours spent for non-emergency operation.

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

- 48.3. Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form. Keep records for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record pertaining to any 40 C.F.R Part 63 applicable requirements. All records may be retained off-site.

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

[40 C.F.R. 63.10(b)(1), Subpart A]

## **Process Heaters Subject to NESHAP Subpart DDDDD, EU IDs 12 through 14**

- 49. NESHAP Subpart DDDDD Compliance Deadline.** For EU IDs 12 through 14, the Permittee shall comply at all times with the applicable requirements of Conditions 50 through 55 beginning no later than January 31, 2016.

[40 C.F.R. 71.6(a)(1)]  
[40 C.F.R. 63.7495(b), §63.7500(a)(1), §63.7505(a), Subpart DDDDD]

- 50. NESHAP Subpart DDDDD Requirements.** For existing process heaters EU IDs 12 through 14 at a major source of HAPS, comply with the following requirements:

### ***NESHAP Subpart DDDDD General Operation and Maintenance Requirements***

- 50.1. At all times, operate and maintain EU IDs 12 through 14, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 12 through 14.

[40 C.F.R. 63.7500(a)(3), Subpart DDDDD]

### ***NESHAP Subpart DDDDD Work Practice Standards***

- 50.2. A one-time energy assessment<sup>19</sup> shall be performed on the stationary source by qualified energy assessor no later than January 31, 2016. The energy assessment must include:
- a. A visual inspection of the boiler or process heater system;
  - b. An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;
  - c. An inventory of major energy use systems consuming energy from EU IDs 12 through 14 which are under the control of the Permittee;
  - d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;
  - e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices;
  - f. A list of cost-effective energy conservation measures that are within the facility's control;

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<sup>19</sup> An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements of Condition 50.2, satisfies the energy assessment requirement.

- g. A list of the energy savings potential of the energy conservation measures identified; and
- h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 C.F.R. 63.7500(a)(1), §63.7510(e), and Table 3 (Item 4) of Subpart DDDDD]

50.3. For EU IDs 12 through 14, except as allowed by Condition 50.4.a, conduct an initial performance tune-up according to Condition 50.4.b no later than January 31, 2016.

[40 C.F.R. 63.7500(a)(1), §63.7510(e), Subpart DDDDD]

50.4. For EU IDs 12 through 14, except as allowed by Condition 50.4.a, conduct annual performance tune-ups according to Condition 50.4.b. Each annual tune-up must be conducted no more than 13 months after the previous tune-up.

[40 C.F.R. 7500(a)(1), §63.7515(d), §63.7540(a)(10), Table 3 (Item 3) of Subpart DDDDD]

- a. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[40 C.F.R. 63.7540(a)(13), Subpart DDDDD]

- b. Each performance tune-up shall consist of the following:

- (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The burner inspection may be delayed until the next scheduled unit shutdown.
- (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.
- (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available.
- (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and O<sub>2</sub> in volume percent, before and after the adjustments are made. Measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made, and may be taken using a portable CO analyzer.

[40 C.F.R. 63.7540(a)(10)(i)-(v), Subpart DDDDD]

***NESHAP Subpart DDDDD Notification and Reporting***

**51.** The Permittee shall submit the following notifications:

- 51.1. Submit to the Administrator an Initial Notification with a list of affected boilers and process heaters in accordance with 40 C.F.R. 63.9(b)(2) no later than 120 calendar days after January 31, 2013 (i.e., May 31, 2013).

[40 C.F.R. 63.7495(d), §63.7545(a) and (b), Subpart DDDDD]  
[40 C.F.R. 63.9(b)(2), Subpart A]

- 51.2. Submit to the Administrator a Notification of Compliance Status in accordance with 40 C.F.R. 63.9(h) no later than 60 days following completion of the one-time energy assessment required under Condition 50.2 and no later than 60 days following completion of the initial performance tune-up required under Condition 50.3. The Notifications may be combined as long as the due date requirement for each notification is met. In addition to the information required in §63.9(h)(2), the notification(s) must include:

- a. A description of the affected unit(s) including identification of which subcategories the unit is in;
- b. The design heat input capacity of the unit;
- c. A description of the fuel(s) burned;
- d. If any deviations from the initial work practice requirements of Condition 50.2 or 50.3 occurred, include in the notification a description of the deviation, the duration of the deviation, and the corrective action taken; and
- e. The following certification(s) of compliance, as applicable, and signed by a responsible official:
  - (i) “This facility complies with the required initial tune-up according to the procedures in § 63.7540(a)(10)(i) through (vi)”;
  - (ii) “This facility has had an energy assessment performed according to §63.7530(e).”

[40 C.F.R. 63.7530(d), (e) and  
(f), §63.7545(e)(1), (7) and (8), Subpart DDDDD]  
[40 C.F.R. 63.9(h), Subpart A]

**52.** For EU IDs 12 through 14, prepare and maintain on-site an annual report containing the information outlined in Conditions 52.1, 52.2, and 52.3. Submit the report, if requested by the Administrator.

- 52.1. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

- 52.2. A description of any corrective actions taken as a part of the tune-up; and

52.3. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. If EU IDs 12 through 14 share a fuel meter, the fuel used by each unit may be estimated.

[40 C.F.R. 63.7540(a)(10)(vi), Subpart DDDDD]

**53.** For EU IDs 12 through 14 (subject only to a requirement to conduct an annual tune-up according to Condition 50.4 and not subject to emission limits or operating limits), submit annual compliance reports as specified in Conditions 53.1 through 53.4.

[40 C.F.R. 63.7550(a) & (b), Subpart DDDDD]

53.1. The first annual compliance report shall cover the period beginning January 31, 2016 and ending on January 31, 2017. The report shall be postmarked or submitted no later than January 31, 2017.

[40 C.F.R. 63.7550(b)(1) & (2), Subpart DDDDD]

53.2. Subsequent compliance reports must cover the period beginning January 1 and ending December 31, and must be postmarked or submitted no later than January 31 following the reporting period.

[40 C.F.R. 63.7550(b)(3) & (4), Subpart DDDDD]

53.3. The compliance report shall contain the following information:

- a. Company and stationary source name and address;
- b. Process unit information, emissions limitations, and operating parameter limitations;
- c. Date of report and beginning and ending dates of the reporting period;
- d. The total operating time during the reporting period;
- e. Include the date of the most recent tune-up completed as required under Condition 50.4 for each of EU IDs 12 through 14. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown;
- f. If a deviation from the ongoing work practice standard in Condition 50.4 occurred during the reporting period, include a description of the deviation (i.e., duration and cause, including unknown cause, as applicable) and the corrective action taken; and
- g. If no deviation from the ongoing work practice standard in Condition 50.4 occurred during the reporting period, include in the compliance report a statement that there were no deviations from the work practice standards during the reporting period.

[40 C.F.R. 63.7550(c)(1), (c)(5)(i)-(iv) & (xiv), (d)(1) & (2), and Table 9 of Subpart DDDDD]

- 53.4. Submit all reports electronically using CEDRI through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, submit the report to the Administrator (EPA Region X) at the address listed in 40 C.F.R. 63.13. At the discretion of the Administrator, you must also submit these reports to the Administrator in the format specified by the Administrator.

[40 C.F.R. 63.7550(h)(3), Subpart DDDDD]

54. Notify the Department per Condition 87 if any of the requirements in Conditions 50 through 55 were not met.

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

### ***NESHAP Subpart DDDDD Recordkeeping***

55. The Permittee shall keep records as follows for EU IDs 12 through 14:

- 55.1. Keep a copy of each notification and report submitted to comply with Conditions 51 and 52 and all documentation supporting any Initial Notification or Notification of Compliance Status submitted under Condition 51.
- 55.2. Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form, for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record pertaining to 40 C.F.R. Part 63 applicable requirements. At a minimum, the most recent 2 years of data shall be retained onsite. The remaining 3 years of data may be retained off site.

[40 C.F.R. 63.7555(a)(1), Subpart DDDDD]  
[40 C.F.R. 63.7560, Subpart DDDDD]  
[40 C.F.R. 63.10(b)(1) & §63.10(b)(2)(xiv), Subpart A]

### **General Federal Requirements**

56. **Asbestos NESHAP.** The Permittee shall comply with the requirements set forth in 40 C.F.R. 61.145 and 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), & 50.326(j)]  
[40 C.F.R. 61, Subparts A & M, and Appendix A]

### **57. Protection of Stratospheric Ozone, 40 C.F.R. 82**

#### **Subpart F – Recycling and Emissions Reduction**

- 57.1. **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) & 50.326(j)]  
[40 C.F.R. 82, Subpart F]

### **Subpart G – Significant New Alternatives Policy (Halon)**

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

[18 AAC 50.040(d)]  
[40 C.F.R. 82, Subpart G, §82.174 (b) - (d)]

### **Subpart H – Halon Emissions Reduction**

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

[18 AAC 50.040(d)]  
[40 C.F.R. 82, Subpart H, §82.270 (b)-(f)]

### **NESHAPs Applicability Determinations**

58. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b) and 63.10(b)(3). If a source becomes affected by an applicable subpart of 40 C.F.R. 63, the Permittee shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 C.F.R. 63.6(c).

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

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

59. 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 within five years of its initial submission date (September 9, 2010) or according to the most recent update 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.

- 59.1. **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**

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

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

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

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

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

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

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

[18 AAC 50.326(j)(1), 50.400, 50.403, & 50.405]  
[AS 37.10.052(b), 11/04; AS 46.14.240, 6/7/03]

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

- 64.1. the Central Gas Facility portion of the stationary source's assessable potential to emit of 13,426 TPY; or
- 64.2. the Central Gas Facility portion of 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), 50.035, 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]  
[40 C.F.R. 71.5(c)(3)(ii)]

**65. Assessable Emission Estimates.** Emission fees will be assessed as follows:

- 65.1. no later than March 31 of each year, the Permittee may submit an estimate of the Central Gas Facility's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., 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
- 65.2. 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 64.1.

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

**66. Good Air Pollution Control Practice.** The Permittee shall do the following for EU ID(s) 15 through 17 and 23:

- 66.1. perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;
- 66.2. keep records of any maintenance that would have a significant effect on emissions; the records may be kept in electronic format; and
- 66.3. keep a copy of either the manufacturer's or the operator's maintenance procedures.

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

**67. Dilution.** The Permittee shall not dilute emissions with air to comply with this permit. Monitoring shall consist of an annual certification that the Permittee does not dilute emissions to comply with this permit.

[18 AAC 50.045(a)]

**68. Reasonable Precautions to Prevent Fugitive Dust.** A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d), 50.040(e), 50.326(j)(3), & 50.346(c)]

- 68.1. The Permittee shall keep records of
  - a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and
  - b. any additional precautions that are taken
    - (i) to address complaints described in Condition 68.1 or to address the results of Department inspections that found potential problems; and
    - (ii) to prevent future dust problems.
- 68.2. The Permittee shall report according to Condition 70.

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

[18 AAC 50.055(g)]

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

[18 AAC 50.110, 50.040(e), 50.326(j)(3), and 50.346(a)]

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

**70.1. Monitoring:**

- a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 87.
- b. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 70.
- c. The Permittee shall initiate and complete corrective action necessary to eliminate any violation identified by a complaint or investigation as soon as practicable if
  - (i) after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 70; or
  - (ii) the Department notifies the Permittee that it has found a violation of Condition 70.

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

- a. the date, time, and nature of all emissions complaints received;
- b. the name of the person or persons that complained, if known;
- c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 70; and
- d. any corrective actions taken or planned for complaints attributable to emissions from the stationary source.

- 70.3. **Reporting.** With each operating report under Condition 88, 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.
- 70.4. 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.

**71. 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<sup>20</sup> listed in Condition 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, or 57 (refrigerants) the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 87 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 87.

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

### Open Burning Requirements

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

- 72.1. 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.
- 72.2. Compliance with this condition shall be an annual certification conducted under Condition 89.

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

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<sup>20</sup> *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.

## **Section 6. General Source Testing and Monitoring Requirements**

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

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

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

[18 AAC 50.220(b)]

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

74.2. at the maximum rated burning or operating capacity of the emission unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

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

75.1. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.040(a)]  
[40 C.F.R. 60]

75.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c) & 50.220(c)(1)(C)]  
[40 C.F.R. 63]

75.3. 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 & 50.220(c)(1)(D)]

75.4. 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) & 50.220(c)(1)(E)]  
[40 C.F.R. 60, Appendix A]  
[40 C.F.R. 63, Appendix A, Method 301]

- 75.5. Source testing for emissions of PM10 must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.  
[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]  
[40 C.F.R. 51, Appendix M]
- 75.6. 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) & 50.220(c)(2)]  
[40 C.F.R. 63, Appendix A, Method 301]
- 76. Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emission unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).  
[18 AAC 50.220(c)(3) & 50.990(102)]
- 77. Test Exemption.** The Permittee is not required to comply with Conditions 79, 80 and 81 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 2.1).  
[18 AAC 50.345(a)]
- 78. Test Deadline Extension.** The Permittee may request an extension to a source test deadline established by the Department. The Permittee may delay a source test beyond the original deadline only if the extension is approved in writing by the Department's appropriate division director or designee.  
[18 AAC 50.345(a) & (l)]
- 79. Test Plans.** Except as provided in Condition 77, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing, and quality assurance and must specify how the 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 73 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be performed without resubmitting the plan.  
[18 AAC 50.345(a) & (m)]
- 80. Test Notification.** Except as provided in Condition 77, at least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and the time the source test will begin.  
[18 AAC 50.345(a) & (n)]

**81. Test Reports.** Except as provided in Condition 77, within 60 days after completing a source test, the Permittee shall submit 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 84. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

[18 AAC 50.345(a) & (o)]

**82. Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 6 and 21.2, 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**

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

- 83.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and
- 83.2. Records of all monitoring required by this permit, and information about the monitoring including:
  - a. the date, place, and time of sampling or measurements;
  - b. the date(s) analyses were performed;
  - c. the company or entity that performed the analyses;
  - d. the analytical techniques or methods used;
  - e. the results of such analyses; and,
  - f. the operating conditions as existing at the time of sampling or measurement.

### **Reporting Requirements**

**84. Certification.** The Permittee shall certify any permit application, report, affirmation, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: *“Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.”* Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

- 84.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if
  - 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 84.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

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

**85. 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, emission source test reports, or other records under a cover letter certified in accordance with Condition 84.

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

**86. Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the Federal Administrator.

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]  
[40 C.F.R. 71.5(a)(2) & 71.6(a)(3)]

**87. Excess Emissions and Permit Deviation Reports.**

87.1. Except as provided in Condition 70, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

- a. in accordance with 18 AAC 50.240(c), as soon as possible after the event commenced or is discovered, report
  - (i) emissions that present a potential threat to human health or safety; and
  - (ii) excess emissions that the Permittee believes to be unavoidable;
- b. in accordance with 18 AAC 50.235(a), within two working days after the event commenced or was discovered, report an unavoidable emergency, malfunction, or nonroutine repair that causes emissions in excess of a technology based emission standard;
- c. report all other excess emissions and permit deviations
  - (i) within 30 days of the end of the month in which the excess emissions or deviation occurred, except as provided in Conditions 87.1.c(ii) and 87.1.c(iii);
  - (ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 87.1.c(i); and
  - (iii) for failure to monitor, as required in other applicable conditions of this permit.

87.2. When reporting excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at <http://www.dec.state.ak.us/air/ap/site.htm> or <https://myalaska.state.ak.us/deca/air/airtoolsweb/>, or if the Permittee prefers, the form contained in Section 13 of this permit. The Permittee must provide all information called for by the form that is used.

87.3. If requested by the Department, the Permittee shall provide a more detailed written report as requested to follow up an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), & 50.346(b)(2) & (3)]

**88. Operating Reports.** During the life of this permit<sup>21</sup>, 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.

88.1. The operating report must include all information required to be in operating reports by other conditions of this permit.

88.2. If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 88.1, The Permittee shall identify

- a. the date of the deviation;
- b. the equipment involved;
- c. the permit condition affected;
- d. a description of the excess emissions or permit deviation; and
- e. any corrective action or preventive measures taken and the date of such actions.

88.3. When excess emissions or permit deviations have already been reported under Condition 87 the Permittee shall cite the date or dates of those reports.

88.4. The operating report must include for the period covered by the report a listing of emissions monitored under Conditions 1.3, 2.1.e and 33.1.a which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report.

- a. the date of the emissions;
- b. the equipment involved;
- c. the permit condition affected; and
- d. the monitoring result which triggered the additional monitoring.

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<sup>21</sup> *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.

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

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

**89. Annual Compliance Certification.** Each year by March 31, the Permittee shall compile and submit to the Department an original and one copy of an annual compliance certification report<sup>22</sup>.

89.1. Certify the compliance status of the stationary source over the preceding calendar year consistent with the monitoring required by this permit, as follows:

- a. identify each term or condition set forth in Section 3 through Section 9, that is the basis of the certification;
- b. briefly describe each method used to determine the compliance status;
- c. state whether compliance is intermittent or continuous; and
- d. identify each deviation and take it into account in the compliance certification;

89.2. **Transition from expired to renewed permit.** For the first period of this renewed operating permit, also provide the previous permit's annual compliance certification report elements covering that partial period immediately preceding the effective date of this renewed permit.

89.3. In addition, submit a copy of the report directly to the EPA-Region 10, Office of Air Quality, M/S OAQ-107, 1200 Sixth Avenue, Seattle, WA 98101.

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

**90. NSPS and NESHAP Reports.** The Permittee shall:

90.1. **Reports:** Attach to the operating report required by Condition 88 a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10 during the period covered by the report; and

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

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

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<sup>22</sup> See Condition 89.2 for clarification on the number of reports required.

**91. Emission Inventory Reporting.** The Permittee shall submit to the Department reports of actual emissions, by emission unit, of CO, NH<sub>3</sub>, NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOCs and Lead (Pb) (and lead compounds) for the previous calendar year using the form in Section 14 of this permit, each year by March 31, as the stationary source's potential to emit emissions for the previous calendar year exceed 2500 TPY of NO<sub>x</sub>.

91.1. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Table 2A of Appendix A to Subpart A of 40 CFR 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) and 18 AAC 50.200]  
[40 CFR 51.15, 51.30(a)(1) & (b)(1)  
and 40 CFR 51, Appendix A to Subpart A, 73 FR 76556]

## **Section 8. Permit Changes and Renewal**

**92. Permit Applications and Submittals.** The Permittee shall comply with the following requirements for submitting application information to the EPA Region 10:

- 92.1. 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<sup>23</sup>;
- 92.2. The information shall be submitted to the same address as in Condition 89.3.
- 92.3. 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
- 92.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7), 50.326(b) and 50.346(b)(7)]  
[40 C.F.R. 71.10(d)(1)]

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

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

**94. Off Permit Changes.** The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 C.F.R. Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

- 94.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;
- 94.2. 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;
- 94.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f);
- 94.4. The Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

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

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<sup>23</sup> The documents required in Condition 92.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek Avenue, Suite 249, Anchorage, AK 99501.

**95. Operational Flexibility.** The Permittee may make changes within the permitted stationary source under Section 502(b)(10) of the Act 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):

- 95.1. The Permittee shall provide EPA and the Department with a notification no less than 7 days in advance of the proposed change.
- 95.2. For each such change, the written notification required by Condition 95.1 above shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- 95.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 95.

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

**96. Permit Renewal.** To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than [18 months before] and no later than [6 months before the expiration date of this permit]. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 C.F.R. 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3), 50.326(c)(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**

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

97.1. included and specifically identified in the permit; or

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

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

**98.** The Permittee must comply with each permit term and condition.

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

98.2. 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), 50.326(j) & 50.345(a) & (c)]

[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

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

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

**100.** 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

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

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

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

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

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

## **Compliance Schedule**

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

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

**Section 10. Permit As Shield from Inapplicable Requirements**

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

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

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

102.2. 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)]

**103.** Table G identifies the emission units that are not subject to the specified requirements at the time of permit issuance. The permit shields apply to the equipment as it is currently permitted and any modifications or reconstruction of the equipment will negate the permit shield. If any of the requirements listed in Table G becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including. 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 G - Permit Shields Granted**

EU ID	Non-Applicable Requirements	Reason for non-applicability
Gas Fired Heaters 12 through 14	40 C.F.R. 60 Subpart Db, 40 C.F.R. 60.42b - Standard for Sulfur Dioxide 40 C.F.R. 60.43b - Standard for Particulate Matter 40 C.F.R. 60.44b(b) - (g) - Standard for Nitrogen Oxides	No applicable requirements for units fired only with natural gas. This shield will no longer apply if EU ID 12 through 14 are modified to accommodate fuels other than natural gas, or if the fuel gas does not meet the definition of natural gas in 40 CFR 60.41b.
	40 C.F.R. 60.44b(j) - (k)	Units are not subject to a federally-enforceable requirement limiting operation to a combined annual capacity factor of 10 percent or less [ref. 40 C.F.R. 60.44b(j)(3)]
	40 C.F.R. 60.44b(l)	Construction, modification, or reconstruction commenced prior to July 9, 1997. This shield will no longer apply to a unit after that unit is modified or reconstructed.
	40 C.F.R. 60.45b - Compliance and Performance Test Methods and Procedures for Sulfur Dioxide	Applies only to units subject to provisions of 40 C.F.R. 60.42b
	40 C.F.R. 60.46b(a), (b), (d) – Compliance and Performance Test Methods and Procedures for Particulate Matter and	Applies only to units subject to provisions of 40 C.F.R. 60.43b

EU ID	Non-Applicable Requirements	Reason for non-applicability
	Nitrogen Oxides	
	40 C.F.R. 60.46b(c) (Performance Test) 40 C.F.R. 60.46b(e)(1) (Initial Compliance Test)	Obsolete requirement - completed as required
	40 C.F.R. 60.46b(e)(2), (e)(5)	Applies only to units fired with coal or residual oil
	40 C.F.R. 60.46b(e)(3)	Applies only to units with a heat input capacity greater than 250 MMBtu/hr
	40 C.F.R. 60.46b(f)	Applies only to units with duct burners used in combined cycle systems
	40 C.F.R. 60.46b(g)	Applies only to units meeting the criteria outlined in 40 C.F.R. 60.44b(j) or (k)
	40 C.F.R. 60.46b(h)	Applies only to units subject to 40 C.F.R. 60.44b(j) with a heat input capacity greater than 250 MMBtu/hr
	40 C.F.R. 60.47b - Emission Monitoring for Sulfur Dioxide	Applies only to units subject to provisions of 40 C.F.R. 60.42b
	40 C.F.R. 60.48b(a) - Emission Monitoring for Particulate Matter and Nitrogen Oxides	Applies only to units subject to provisions of 40 C.F.R. 60.43b
	40 C.F.R. 60.49b(a) & (b) – Reporting and Recordkeeping Requirements (Initial Notification and Testing)	Obsolete requirement - completed as required
	40 C.F.R. §60.49b(e)	Applies only to units fired with residual oil
	40 C.F.R. 60.49b(f) & (h)(3)	Applies only to units subject to 40 C.F.R. 60.43b
	40 C.F.R. 60.49b(g)(10) – Reporting and Recordkeeping Requirements, 40 C.F.R. 60 Appendix F	The CEMS is not used to determine compliance on a continuous basis [ref. 40 C.F.R. 60.46b(e)(4)]
	40 C.F.R. 60.49b(j), (m), & (r)	Applies only to units subject to 40 C.F.R. 60.42b
	40 C.F.R. 60.49b(k), (l), & (n)	Applies only to units subject to 40 C.F.R. 60.45b
	40 C.F.R. 60.49b(p) & (q)	Applies only to units subject to provisions of 40 C.F.R. 60.44b(j) or (k)
	40 C.F.R. 60 Subpart A, 40 C.F.R. 60.7(a)(1) & (3) - Notification and Recordkeeping (Initial Notification) & 40 C.F.R. 60.8(a) – Performance Test (Initial Performance Test Only)	Obsolete requirements - completed as required
	40 C.F.R. 60.7(a)(4) – Notification and Recordkeeping	Applies only to “existing facilities”, as defined in 40 C.F.R. 60.2
	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 <i>Fossil-Fuel-Fired Steam Generators</i> , 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 <i>Electric Utility Steam Generating Units</i> , as defined in subpart
	40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam	Heat input capacities exceed threshold (100 MMBtu/hr); and commenced construction prior to effective date of subpart (6/9/89)

EU ID	Non-Applicable Requirements	Reason for non-applicability
	Generating Units	
All Storage Tanks	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Units commenced construction, modification, or reconstruction after May 19, 1978 and do not store petroleum liquids
	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Units commenced construction, modification, or reconstruction after July 23, 1984 and do not store petroleum liquids
Storage Tank 19-1901	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Vessel do not store a <i>volatile organic liquid (VOL)</i> , as defined in 40 C.F.R. 60.111b; and vapor pressure of stored liquid below thresholds
Storage Tanks 19-1902 & 19-1905	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	19-1902: Not applicable for a capacity greater than 151 m <sup>3</sup> storing a liquid with a maximum true vapor pressure less than 0.5 psia [ref. 40 C.F.R. 60.110b(b)]. This vessel has a capacity of 346 m <sup>3</sup> , storing arctic (No. 1) diesel, which has a maximum true vapor pressure of <0.1 psia. 19-1905: Not applicable for a capacity greater than or equal to 75 m <sup>3</sup> but less than 151 m <sup>3</sup> storing a liquid with a maximum true vapor pressure less than 2.2 psia [ref. 40 C.F.R. 60.110b(b)]. This vessel has a capacity of 148.5 m <sup>3</sup> , storing methanol, which has a maximum true vapor pressure of <2.2 psia when stored at temperatures less than 77 °F.
Group I Gas Turbines 1 through 11	40 C.F.R. 60 Subpart GG, 40 C.F.R. 60.332(a)(1) - Standards for Nitrogen Oxides	Units are not <i>Electric Utility Stationary Gas Turbines</i> , as defined in 40 C.F.R. 60.331
	40 C.F.R. 60.334(a), (b), and (d) - Monitoring of Operations 40 C.F.R. 60.335(b)(4)- Test Methods and Procedures	Units not equipped with water injection to control emissions of NO <sub>x</sub>
	40 C.F.R. 60.334(e), (f) – Monitoring of Operations	Commenced construction prior to July 8, 2004
	40 C.F.R. 60.334(g) – Monitoring of Operations	Applies only to affected turbines subject to the continuous monitoring requirements of 40 C.F.R. 60.334(a), (d), or (f)
	40 C.F.R. 60.334(h)(2) – Monitoring of Operations	BPXA has not claimed an allowance for fuel-bound nitrogen to calculate the applicable NO <sub>x</sub> emission limit under 40 C.F.R. 60.332
	40 C.F.R. 60.7(a)(1) & (3) - Notification and Recordkeeping (Initial Notification)	Obsolete requirements - completed as required
	40 C.F.R. 60.7(a)(4) - Notification and Recordkeeping	Applies only to “existing facilities”, as defined in 40 C.F.R. 60.2
Group I Gas Turbines 5 through 11	40 C.F.R. 60.8(a) - Performance Test (Initial Performance Test Only) 40 C.F.R. 60.335(b), (c)(1), (c)(3) - Test Methods and Procedures	Obsolete requirements - completed as required

EU ID	Non-Applicable Requirements	Reason for non-applicability
Group I Gas Turbines 1 through 4	40 C.F.R. 60 Subpart GG, 40 C.F.R. 60.332(a)(2) - Standards for Nitrogen Oxides	Units subject to 40 C.F.R. 60.332(a)(1) or (2) must be classified under 40 CFR 60.332(c)-(d) EU ID 1 through 4 do not meet any of these classifications. They are rated at greater than 107.2 Gigajoules per hour, but are not electric utility stationary gas turbines.
NGL Plant	40 C.F.R. 60 Subpart KKK [Subpart VV (Incorporated by Reference)], 40 C.F.R. 60.482-2(a)(1) - Standards: Pumps in Light Liquid Service 40 C.F.R. 60.482-7(a), (c)(1) - Standards: Valves in Gas/Vapor Service and in Light Liquid Service 40 C.F.R. 60.633(b)(1) - Exceptions	Pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of §§60.482-2(a)(1), 60.482-7(a), 60.482-7(c)(1), and 60.633(b)(1) [ref. 40 C.F.R. 60.633(e)]
	40 C.F.R. 60.482-5 - Standards: Sampling Connection Systems	Sampling connection systems are exempt from the requirements of 40 C.F.R. 60.482-5 [ref. 40 C.F.R. 60.633(c)]
	40 C.F.R. 60 Subpart A, 40 C.F.R. 60.7(a)(1) & (3) - Notification and Recordkeeping (Initial Notification)	Obsolete requirement - completed as required
	40 C.F.R. 60.7(a)(4) - Notification and Recordkeeping	Only applies to “existing facilities”, as defined in 40 C.F.R. 60.2.
	40 C.F.R. 60.7(b), (c), & (d) - Notification and Recordkeeping	Not applicable to affected emission units subject to 40 C.F.R. 60 Subpart VV [40 C.F.R. 60.486(k)] (incorporated by reference in 40 C.F.R. 60 Subpart KKK)
Flares 19 through 22	40 C.F.R. 60 Subpart KKK, 40 C.F.R. 60 Subpart A, 40 C.F.R. 60.18(c)(5), (f)(6) - General Control Device Requirements: Exit Velocity Requirements for Air-Assisted Flares	EU ID(s) 19 through 22 are not air assisted, but are considered non-assisted flares
23	40 C.F.R. 60 Subpart A, 40 C.F.R. 60.18	EPA has determined that the EU ID 23, CGF NGL burn pit, is not subject [ref. EPA Region X letter, 10/19/05]
Group I Gas Turbines 1 through 11	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. Permit shield for Subpart KKKK only applies to currently installed units until modified, reconstructed or replaced.
Group III Diesel Fired Engines 15 through 18	40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Construction, modification, or reconstruction of each IC engine commenced prior to the applicability date of July 11, 2005. Permit shield for Subpart IIII only applies to currently installed units until modified, reconstructed or replaced.

EU ID	Non-Applicable Requirements	Reason for non-applicability
Existing Emergency Engines >500 hp - EU ID(s)15, 16 and 17 (NGI-19-2890, NGI-19-2802, NGI-19-2819)	40 C.F.R. 63, Subpart ZZZZ	Per 40 C.F.R. 63.6590(b)(3)(iii), and 63.6600(c), this subpart and Subpart A do not apply to existing emergency stationary RICE with a site rating >500 hp located at a major source of HAP emissions, except for the requirements of 40 CFR 64.6640(f)(2).
	40 C.F.R. 63, Subpart ZZZZ, Table 8 & 40 C.F.R. 63 Subpart A	Per 40 C.F.R. 63.6640(e) and §63.6665, existing emergency engines rated at >500 hp located at a major source of HAP are not subject to the requirements of Subpart ZZZZ, Table 8 or 40 C.F.R. 63 Subpart A, except for the initial notification requirements.
Existing Emergency Engine <500 hp - EU ID 18 (NGI-19-1529)	40 C.F.R. 63.6600 - Emission Limitations for RICE rated more than 500 hp at a Major Source	This engine is rated less than 500 hp.
	40 C.F.R. 63.6603, Subpart ZZZZ - Emission Limitations for Existing RICE at an Area Source	The stationary source is not an area source of HAP emissions.
	40 C.F.R. 63, Subpart ZZZZ, Tables 2a, 2b and 2d - Operating Limitations	There are no requirements in Tables 2a, 2b or 2d of Subpart ZZZZ that apply to this engine because it is an existing CI RICE engine located at a major source of HAP emissions.
	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.
	40 C.F.R. 63.6610 and 40 C.F.R. 63.6611, Subpart ZZZZ – Testing and Initial Compliance Requirements	This requirement does not apply to stationary CI RICE with a site rating ≤500 hp located at a major source of HAP emissions.
	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 this engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2c of 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 this engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ.
	40 C.F.R. 63.6625(g), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	This requirement does not apply to emergency engines.
	40 C.F.R. 63.6630(b), (c), Subpart ZZZZ – Initial Compliance Demonstration	There are no performance testing requirements that apply to this engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2c of 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.

EU ID	Non-Applicable Requirements	Reason for non-applicability
	40 C.F.R. 63.6650, 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 a numerical emission standard.
	40 C.F.R. 63.6655(a) – (d), Subpart ZZZZ - Recordkeeping Requirements	There are no emission or operational limits which apply to the engine.
	40 C.F.R. 63.7, Subpart A – Performance Testing Requirements	There is no performance testing requirement that apply to this engine.
	40 C.F.R. 63.8, Subpart A – Monitoring	Per 40 C.F.R. 63.6645(a)(5), this engine is not subject to the requirements of §63.8(e), (f)(4) and (f)(6).
Stationary Source-Wide	40 C.F.R. 60 Subpart J, GGG and QQQ	Stationary source does not meet the definition of a petroleum refinery
NGL Plant	40 C.F.R. 60 Subpart LLL	Stationary source does not operate natural gas sweetening unit(s)
Stationary Source-Wide	40 C.F.R. 61 Subpart E	Stationary source does not operate incinerators
	40 C.F.R. 61 Subpart M, 40 C.F.R. 61.142 - Standard for Asbestos Mills	Stationary source is not an asbestos mill
	40 C.F.R. 61.143 - Standard for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste
	40 C.F.R. 61.144 - Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos
	40 C.F.R. 61.146 - Standard for Spraying	Stationary source does not spray apply asbestos containing materials.
	40 C.F.R. 61.147 - Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos.
	40 C.F.R. 61.148 - Standard for Insulating Materials	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos.
	40 C.F.R. 61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to stationary sources subject to 40 C.F.R. 61.142 (asbestos mills).
	40 C.F.R. 61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to stationary sources subject to 40 C.F.R. 61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating)
	40 C.F.R. 61.153 - Standard for Reporting	No reporting requirements apply for sources subject to 40 C.F.R. 61.145 (demolition and renovation) [ref. 40 C.F.R. 61.153(a)]
	40 C.F.R. 61.154 - Standard for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material
40 C.F.R. 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).	

EU ID	Non-Applicable Requirements	Reason for non-applicability
	40 C.F.R. 61.152 - Standard for Air-Cleaning	Stationary source does not use air cleaning equipment.
Activities Subject to 40 C.F.R. 61 Subpart M - (61.145)	40 C.F.R. 61 Subpart A, 40 C.F.R. 61.05(a) - Prohibited Activities 40 C.F.R. 61.07 - Application for Approval of Construction or Modification 40 C.F.R. 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)]
	40 C.F.R. 61.10 - Source Reporting and Waiver Request	Demolition and renovation operations are exempt from 40 C.F.R. 61.10(a) [ref. 40 C.F.R. 61.153(b)].
	40 C.F.R. 61.13 - Emission Tests 40 C.F.R. 61.14 - Monitoring Requirements	Not required under the standards for demolition and renovation [40 C.F.R. 61.145]
Stationary Source-Wide	40 C.F.R. 61 Subpart J	No process components in <i>benzene service</i> , as defined by subpart (10 percent benzene by weight)
	40 C.F.R. 61 Subpart V	Stationary source does not operate equipment in volatile hazardous air pollutant (VHAP) service ( $\geq 10$ percent VHAP by weight)
	40 C.F.R. 61 Subpart Y	Stationary source does not operate storage vessels in benzene service
	40 C.F.R. 61 Subpart BB	Stationary source does not conduct benzene transfer operations
	40 C.F.R. 61 Subpart FF	Stationary source does not conduct benzene waste operations
	40 C.F.R. 61 Subpart A	Only applies to emission units subject to any provision of 40 C.F.R. 61
	40 C.F.R. 63 Subpart B (Part I Application Only)	Obsolete requirement - completed as required. BPXA submitted a Part I application on May 15, 2002.
	40 C.F.R. 63 Subpart T	Stationary source does not operate halogenated solvent cleaning machines
Stationary Source-Wide	40 C.F.R. 63 Subpart HH	The CGF does not operate any glycol dehydration units or storage vessels with the potential for flash emissions. In addition, no ancillary equipment or compressors in operation at the CGF operate in VHAP service ( $\geq 10$ percent VHAP by weight) [EPA Region X letter, 10/7/03, BPXA letter, 8/20/04]
All Tanks	40 C.F.R. 63 Subpart OO	Only applies to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO
Drain Systems	40 C.F.R. 63 Subpart RR	Only applies to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR
All Storage Tanks	40 C.F.R. 63 Subpart SS	Only applies to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart SS

EU ID	Non-Applicable Requirements	Reason for non-applicability
Oil-Water Separators	40 C.F.R. 63 Subpart VV	Only applies 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
Stationary Source-Wide	40 C.F.R. 63 Subpart EEEE	The CGF does not operate organic liquid storage tanks or organic liquid loading racks. Therefore, the initial notification required by 40 C.F.R. 63.9(b)(2) and 40 C.F.R. 63.2382(b) was submitted to EPA on March 1, 2005.
	40 C.F.R. 63 Subpart EEEE, 40 C.F.R. 63.9(b)(2) and 40 C.F.R. 63.2382(b) – Initial Notification	Obsolete requirement – completed as required (see above)
	40 C.F.R. 63 Subpart HHH	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
Group I Gas Turbines 1 through 11	40 C.F.R. 63 Subpart YYYY	Turbines located on the North Slope of Alaska are categorically exempt from 40 C.F.R. 63 Subpart YYYY.
Source-Wide, except NGL Plant	40 C.F.R. 64	These units do not use a control device to achieve compliance with any emission limitation or standard
NGL Plant	40 C.F.R. 64	Potential pre-control device emissions from the pollutant-specific emission unit (PSEU) are less than 100 tons per year
Stationary Source-Wide	40 C.F.R. 82.1 Subpart A -	Stationary source does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
	40 C.F.R. 82.30 Subpart B	Stationary source does not service motor vehicle air conditioners.
	40 C.F.R. 82.60 Subpart C	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
	40 C.F.R. 82.80 Subpart D	Only applies to federal Departments, agencies, and instrumentalities.
	40 C.F.R. 82.100 Subpart E	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
	40 C.F.R. 82.158 Subpart F	Stationary source does not manufacture or import recovery and recycling equipment.

EU ID	Non-Applicable Requirements	Reason for non-applicability
Stationary Source-Wide	40 C.F.R. 82.160	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
	40 C.F.R. 82.164	Stationary source does not sell reclaimed refrigerant.
	40 C.F.R. 82, Subpart F, Appendix C	Stationary source is not a third party entity that certifies recovery equipment.
	40 C.F.R. 82, Subpart F, Appendix D	Stationary source does not have a technician certification program.
	40 C.F.R. 82.174(a) Subpart G: Prohibitions	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds
	40 C.F.R. 82.270(a) Subpart H	Stationary source does not manufacture halon
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 Emissions Standards: Particulate Matter 18 AAC 50.055(c) – Fuel-Burning Equipment Emissions Standards: Sulfur Compound Emissions	Nonroad (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 from Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form."

- 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						
Stationary Source Name						Page No. _____
Type of Emission Unit		Observation Date		Start Time		End Time
Emission Unit Location		Sec	0	15	30	45
City		Min	Comments			
State		1				
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 stack exit to where the plume was read		10				
No	Yes					
Point in Plume at Which Opacity Was Determined		11				
Describe Plume Background		Background Color		12		
Start	Start					
End	End					
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 _____		
<b>Data Reduction:</b>						
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)			
<b>Average Opacity Summary:</b>						
Set Number	Time		Opacity		Comments	
	Start	End	Sum	Average		

**Section 12. Material Balance Calculation**

If the sulfur content of a fuel shipment is greater than 0.75 percent by weight, calculate the three-hour exhaust concentration of SO<sub>2</sub> using the following equations:

$$\begin{aligned}
 \text{A.} &= 31,200 \times [\text{wt}\% \mathbf{S}_{\text{fuel}}] = 31,200 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{B.} &= 0.148 \times [\text{wt}\% \mathbf{S}_{\text{fuel}}] = 0.148 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{C.} &= 0.396 \times [\text{wt}\% \mathbf{C}_{\text{fuel}}] = 0.396 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{D.} &= 0.933 \times [\text{wt}\% \mathbf{H}_{\text{fuel}}] = 0.933 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{E.} &= \text{B} + \text{C} + \text{D} = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{F.} &= 21 - [\text{vol}\%_{\text{dry}} \mathbf{O}_2, \text{ exhaust}] = 21 - \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{G.} &= [\text{vol}\%_{\text{dry}} \mathbf{O}_2, \text{ exhaust}] \div \text{F} = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{H.} &= 1 + \text{G} = 1 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \text{I.} &= \text{E} \times \text{H} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \\
 \mathbf{SO}_2 \text{ concentration} &= \text{A} \div \text{I} = \underline{\hspace{2cm}} \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}} \text{ PPM}
 \end{aligned}$$

The wt% S<sub>fuel</sub>, wt% C<sub>fuel</sub>, and wt% H<sub>fuel</sub> are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Conditions 9.1 and 9.8. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%<sub>dry</sub> O<sub>2</sub>, exhaust) is obtained from oxygen meters, manufacturer's data, or from the most recent ORSAT analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt% S<sub>fuel</sub> = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%<sub>dry</sub> O<sub>2</sub>, exhaust = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

**Section 13. ADEC Notification Form<sup>24</sup>**

Prudhoe Bay Unit Central Gas Facility

AQ0270TVP02

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

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

- Excess Emissions – Complete Section 1 and Certify
- Deviation from Permit Condition – Complete Section 2 and Certify
- Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

**Section 1. Excess Emissions**

(a) Was the exceedance:  Intermittent or  Continuous

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

- Start Up/Shut Down  Natural Cause (weather/earthquake/flood)
- Control Equipment Failure  Schedule Maintenance/Equipment Adjustment
- Bad Fuel/Coal/Gas  Upset Condition  Other \_\_\_\_\_

(c) Description

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

(d) Emissions Units Involved:

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

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

<sup>24</sup> Revised as of August 20, 2008.

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

- Opacity \_\_\_\_\_ %     
  Venting \_\_\_\_\_ gas/scf     
  Control Equipment Down  
 Fugitive Emissions     
  Emission Limit Exceeded     
  Other \_\_\_\_\_  
 Marine Vessel Opacity     
  Flaring \_\_\_\_\_

(f) Unavoidable Emissions:

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

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

*Certify Report (Go to end of form.)*

### Section 2. Permit Deviations

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

- Emission Unit-Specific       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](mailto: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 88.*

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/deca/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 <b>Prudhoe Bay Unit Central Gas Facility</b> State of Alaska Department of Environmental Conservation Division of Air Quality	Emission Inventory Year- [ ]
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Mandatory information is highlighted. Make additional copies as needed.

<b>Inventory start date:</b>	
<b>Inventory end date:</b>	
<b>Inventory Type:</b>	

**Facility Information:**

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

**Emission Unit:**

<b>ID:</b>	
<b>Description:</b>	
<b>Manufacturer:</b>	
<b>Model Number:</b>	
<b>Serial Number:</b>	
<b>Year of Manufacture:</b>	
<b>Maximum Nameplate Capacity:</b>	
<b>Design Capacity (BTU/hr):</b>	

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

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

	<b>Hours/Day of Operation:</b>
	<b>Hours/Year of Operation:</b>

<b>EMISSIONS</b>					
<b>Pollutant</b>	<b>Emission Factor</b>	<b>Emission Factor Numerator</b>	<b>Emission Factor Denominator</b>	<b>Emission Factor Origin</b>	<b>Tons Emitted</b>
CO					
NH <sub>3</sub>					
NO <sub>x</sub>					
PM <sub>10</sub> -PRI					
PM <sub>2.5</sub> -PRI					
SO <sub>2</sub>					
VOC					
Lead and lead compounds					

<b>Stack Description:</b>	
	<b>Stack Detail:</b>
	<b>ID:</b>
	<b>Type:</b>
	<b>Measurement Units:</b>
	<b>Base Elevation:</b>
	<b>Stack Height:</b>
	<b>Stack Diameter:</b>
	<b>Exit Gas Temp:</b>
	<b>Exit Gas Velocity:</b>
	<b>Actual Exit Gas Flow Rate:</b>
	<b>Data Source:</b>
	<b>Description:</b>
	<b>Latitude:</b>
	<b>Longitude:</b>
	<b>Location Description:</b>
<b>Accuracy (m):</b>	

	<b>Datum:</b>
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**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](mailto: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

Or

4. Submission of information can be made via a full electronic batch submittal (XML files). This will require each data element to be tagged with XML (Extensible Markup Language) code before it can be uploaded to ADEC database.

<https://myalaska.state.ak.us/dec/air/airtoolsweb/EiXmlValidator.aspx>

[18 AAC 50.346(b)(9)]