DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0503TVP02 Issue Date: Public Comment - September 4, 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 **Northstar Production Facility**.

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

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

Citations listed herein are contained within 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 effective date of this permit, Operating Permit No. AQ0503TVP01 expires.

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

John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

AAC.....Alaska Administrative Code
ADEC .....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM.....American Society for Testing and Materials
BACT .....Best Available Control Technology
BHp (or bhp).....Boiler Horsepower
C.F.R. .....Code of Federal Regulations
The Act.....Clean Air Act
CO .....Carbon Monoxide
dscf .....Dry standard cubic foot
EPA .....US Environmental Protection Agency
EU.....Emission Unit
gr./dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
g/kWh .....gram per kilowatt-hour
GPH .....gallons per hour
HAPs .....Hazardous Air Pollutants [HAPs as defined in AS 46.14.990]
ID.....Emission Unit Identification Number
kPa .....kiloPascals
LAER.....Lowest Achievable Emission Rate
lb/hr .....pounds per hour
lb/MMBtu.....pounds per million British thermal units
MACT .....Maximum Achievable Control Technology [MACT as defined in 40 C.F.R. 63]
MMBtu/hr.....Million British thermal units per hour
MMSCF.....Million standard cubic feet
MR&R.....Monitoring, Recordkeeping, and Reporting
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
NOx.....Nitrogen Oxides
NSPS .....Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
O & M .....Operation and Maintenance
O_2 .....Oxygen
PAL .....Plantwide Applicability Limitation
PM-10 .....Particulate Matter less than or equal to a nominal ten microns in diameter
ppm .....Parts per million
ppmv, ppmvd .....Parts per million by volume on a dry basis
psia .....Pounds per Square Inch (absolute)
PSD .....Prevention of Significant Deterioration
PTE .....Potential to Emit
SIC. .....Standard Industrial Classification
SO_2 .....Sulfur dioxide
TPH.....Tons per hour
TPY .....Tons per year
VOC .....volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
VOL .....volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent
^oF .....degrees Fahrenheit

Section 1 Stationary Source Information

Identification

Permittee:		**BP Exploration (Alaska), Inc.** 900 East Benson Blvd Anchorage, AK 99519-6612
Stationary Source Name:		**Northstar Production Facility**
Location:		Seal Island – Six miles offshore north of Point Storkersen in the Beaufort Sea UTM: Northing 7,821,359.17 meters, Easting 436,781.97 meters; Zone 6 Latitude: 70°29'39"N Longitude: 148°42'15"W (NAD 83)
Physical Address:		See above
Owner:		**BP Exploration (Alaska), Inc.** 900 East Benson Blvd Anchorage, AK 99519-6612
Operator:		**BP Exploration (Alaska), Inc.** 900 East Benson Blvd Anchorage, AK 99519-6612
Permittee's Responsible Official:		Bruce Price, Area Operations Manager 900 East Benson Blvd Anchorage, AK 99519-6612
Designated Agent:		**CT Corporation System** 801 West 10th Street, Suite 300 Juneau, AK 99801
Stationary Source and Building Contact:		**Alison Cooke, Air Specialist** MB11-6. P.O. Box 196612 Anchorage, AK 99519-6612 (907) 564-4838 Alison.Cooke@bp.com
Fee Contact:		**Alison Cooke, Air Specialist** MB11-6. P.O. Box 196612 Anchorage, AK 99519-6612 (907) 564-4838 Alison.Cooke@bp.com
Permit Contact:		**Alison Cooke, Air Specialist** MB11-6. P.O. Box 196612 Anchorage, AK 99519-6612 (907) 564-4838 Alison.Cooke@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

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Installation or Construction Date
Group A - Stationary EUs				
1	Turbines (Compressor)	GE LM2500 (Fuel Gas Fired)	32,715 hp	Startup 10/24/2001
2	Turbines (Compressor)	GE LM2500 (Fuel Gas Fired)	32,715 hp	Startup 02/08/2002
3	Turbines (Generator)	Solar Mars 90 (Fuel Gas Fired)	11,892 kW	Startup 10/09/2001
4	Turbines (Generator)	Solar Mars 90 (Fuel Gas Fired)	11,892 kW	Startup 10/06/2001
5	Turbines (Generator)	Solar Mars 90 (Fuel Gas Fired)	11,892 kW	Startup 10/01/2001
6	Diesel Generator	Cummins QSK 60-G6 (Diesel Fired)	2,180 kW	Startup 2002
7	Diesel Generator	Cummins QSK 60-G6 (Diesel Fired)	2,180 kW	Startup 2002
8	Firewater Pump	Cummins KTA19 (Diesel Fired)	755 hp	Startup 2000
9a	Incinerator	Unknown	2.4 MMBtu/hr (Fuel Gas) <35 tons waste per day	Startup 2001
10a	Waste Heat Recovery – Supplemental Burner	Tulsa/Zeeco Heater (Fuel Gas Fired)	52.183 MMBtu/hr	Startup 10/08/2001
10b	Waste Heat Recovery – Fresh Air Burner [1]	Tulsa/Zeeco Heater (Fuel Gas Fired)	82 MMBtu/hr	Startup 10/04/2001
11	High Pressure (HP) Flare	Corona (Pilot, Purge, Produced Gas)	25.5 MMscf/hr (612 MMscf/day)	Startup 10/06/2001
12	Low Pressure (LP) Flare	Corona (Pilot, Purge, Produced Gas)	25.5 MMscf/hr (612 MMscf/day)	Startup 10/06/2001
13	Glycol Reboiler	Natco (Fuel Gas Fired)	5.0 MMBtu/hr	Startup 10/07/2001
16	Space Heater, Warehouse	James P. Sheldon Co. Inc.(Fuel Gas Fired)	0.70 MMBtu/hr	Startup 2001
17	Space Heater, Warehouse	James P. Sheldon Co. Inc. (Fuel Gas Fired)	1.075 MMBtu/hr	Startup 2001
18	Space Heater, Warehouse	James P. Sheldon Co. Inc. (Fuel Gas Fired)	1.082 MMBtu/hr	Startup 2001

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Installation or Construction Date
19	Diesel Storage Tank	Unknown	3,060 Bbl [2]	Startup 2001
20	TEG Storage Tank	Unknown	245 bbl [2]	Startup 2001
21	Corrosion Inhibitor Storage Tank	Unknown	245 bbl [2]	Startup 2001
22	Firewater Pump	Cummins 1760 (Diesel Fired)	144 hp	Startup 07/20/2012
GROUP B - Portable Equipment [4]				
NA	Crane [3]	Unknown (Diesel Fired)	275 hp	09/22/2007
NA	Snow Melters	Unknown (Diesel Fired)	10.0 MMBtu/hr	Not onsite
NA	Heaters	Various (Diesel Fired)	3.0 MMBtu/hr	09/20/2006, 09/10/2006 & 09/10/2006
GROUP C - Intermittent Well Servicing Equipment [4]				
NA	I.C. Engines 400 to 600 hp [3]	Various (Diesel Fired)	1,675 hp	Various
NA	IC Engines > 600 hp [3]	Various (Diesel Fired)	1,475 hp	Various
NA	Heaters and Boilers	Various (Diesel Fired)	21.5 MMBtu/hr	Various
NA	Turbines	Various (Diesel Fired)	6,200 bhp	None onsite
NA	Portable Spill Cleanup Tanks	Six Tanks	25,290 Gallons each	Various

Notes:

1. Permittee indicated that EU ID 10b was decommissioned September 2010, but they have retained the unit in the source inventory.
2. U.S. petroleum barrels (42 gallons/bbl).
3. Permittee specified non-road engine pursuant to 18 AAC 50.990(63).
4. Inventory is varied and variable, and capacity of each Group B and C source group reflects Construction Permit AQ0503CPT07, issued October 24, 2012.

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

Section 3 State Requirements

Visible Emissions Standards

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 through 8, 10a, 10b, 11 through 13, 16 through 18 and 22, Group B Snow Melters and Heaters, and Group C Heaters, Boilers and Turbines listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs 1 through 5, 10a, 10b, and 13 burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 92 that each of these emission units fired only gas. Report under Condition 91 if any fuel is burned other than gas.

1.2. For EU IDs 6 through 8, and Group C Heaters and Boilers, monitor, record and report in accordance with Conditions 3 through 5.

1.3. For Group B Snow Melters and Heaters, and Group C Turbines, as long as they do not exceed the respective limits in Condition 20, monitoring shall consist of an annual compliance certification under Condition 93 with the visible emissions standard in accordance with Condition 29.4.

1.4. For EU IDs 16 through 18 and 22, monitor, record, and report according to Condition 29.4 for the visible emissions standard.

1.5. For EU IDs 11 and 12, monitor, record, and report in accordance with Condition 6.

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

2. Incinerator Visible Emissions. The Permittee shall not cause or allow VE, excluding condensed water vapor, from EU ID 9a to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j), 50.050(a), & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

2.1. Observe emissions for 18 consecutive minutes to obtain a minimum of 72 observations in accordance with Method 9 of 40 C.F.R. 60, Appendix A, at least once every 12 calendar months.

2.2. Record and report in accordance with Conditions 4.1.a through 5.2.a.

2.3. If any monitoring under Condition 2.1 was not performed, report under Condition 91 within three days of the date the monitoring was required.

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units (EU IDs 6 through 8, and Group C Heaters and Boilers)

3. Visible Emissions Monitoring. The Permittee shall observe the exhaust of EU IDs 6 through 8, and Group C Heaters and Boilers for visible emissions using either the Method 9 Plan under Condition 3.2 or the Smoke/No-Smoke Plan under Condition 3.3, as modified by pre-Conditions 3.1.a and 3.1.b. The Permittee may change visible emissions plans for an emission unit at any time unless prohibited from doing so by Condition 3.4. 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)]

3.1. For EU IDs 6, 7 and 8, conduct surveillance as follows:

a. For EU IDs 6 and 7 (Emergency Generators), no less than one surveillance per 400 unit-hours of operation (emergency and non-emergency hours combined) for each unit.

[Construction Permit AQ0503CPT07, Condition 5.2a, 10/24/12]

b. For EU ID 8, no less than one surveillance per 1,000 unit-hours of operation.

[Construction Permit AQ0503CPT07, Condition 5.2b, 10/24/12]

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

a. **First Method 9 Observation**. For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 3.3.

(i) For any unit replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

b. **Monthly Method 9 Observations**. Except as provided at Conditions 3.1.a and 3.1.b, after the first Method 9 observation, perform 18-minute observations at least once in each calendar month that an emission unit operates.

c. **Semiannual Method 9 Observations**. Except as provided at Conditions 3.1.a and 3.1.b, after observing emissions for three consecutive operating months under Condition 3.2.b, unless a six-minute average is greater than 15 percent and one or more observations are greater than 20 percent, perform 18-minute observations:

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

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

d. **Annual Method 9 Observations**. Except as provided at Conditions 3.1.a and 3.1.b, after at least two semiannual 18-minute observations, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations:

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

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

e. **Increased Method 9 Frequency**. Except as provided at Conditions 3.1.a and 3.1.b, if a six-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more observations are greater than 20 percent, then increase or maintain the 18-minute observation frequency for that emission unit to at least monthly intervals as described in Condition 3.2.b, until the criteria in Condition 3.2.c for semiannual monitoring are met.

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

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

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

c. **Smoke Observed**. If smoke is observed, either begin the Method 9 Plan of Condition 3.2 or perform the corrective action required under Condition 3.4.

3.4. **Corrective Actions Based on Smoke/No Smoke Observations**. If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 3.3, then the Permittee shall either follow the Method 9 plan of Condition 3.2 or

a. initiate actions to eliminate smoke from the emission unit within 24 hours of the observation;

b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and

c. after completing the actions required under Condition 3.4.a,

(i) take Smoke/No Smoke observations in accordance with Condition 3.3

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

(B) continue as described in Condition 3.3.b; or

(ii) if the actions taken under Condition 3.4.a do not eliminate the smoke, or if subsequent smoke is observed under the schedule of Condition 3.4.c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan; after observing smoke and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke and restart the Smoke/No Smoke Plan under Condition 3.3.a.

4. Visible Emissions Recordkeeping. 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)]

4.1. When using the Method 9 Plan of Condition 3.2,

a. the observer shall record

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

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

(iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation record in Section 11, and

(v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

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

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

4.2. If using the Smoke/No Smoke Plan of Condition 3.3, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. from Table A, the ID of the emission unit observed;

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

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

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

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

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

5. Visible Emissions Reporting. 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)]

5.1. Include in each operating report under Condition 92 for the period covered by the report:

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

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

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

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-minute average observed; and

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

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

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

5.2. Report under Condition 91:

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 3 was not performed when required, report within three days of the date the monitoring was required.

Flares (EU IDs 11 and 12)

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

6.1. Monitor flare events using Method 9.

6.2. Record the following information for observed events:

a. the flare(s) EU ID number;

b. results of the Method 9 observations;

c. reason(s) for flaring;

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

e. volume of gas flared.

6.3. 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 92, 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.

6.4. Attach copies of the records required by Condition 6.2 with the operating report required by Condition 92 for the period covered by that report.

6.5. Report under Condition 91 whenever the opacity standard in Condition 1 is exceeded.

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

[1] 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.

Particulate Matter Emissions Standards

7. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 through 8, 10a, 10b, 11 through 18, Group B Snow Melters and Heaters, and Group C Heaters, Boilers and Turbines 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)]

7.1. For EU IDs 6 through 8, monitor, record and report in accordance with Conditions 9 through 11.

7.2. For Group C Heaters and Boilers, monitor, record and report in accordance with Conditions 12 through 14.

7.3. For Group B Snow Melters and Heaters, and Group C Turbines, as long as they do not exceed the respective limits in Condition 20, monitoring shall consist of an annual compliance certification under Condition 93 with the visible emissions standard in accordance with Condition 29.4.

7.4. For EU IDs 11 and 12, the Permittee must annually certify compliance under Condition 93 with the particulate matter standard.

7.5. For EU IDs 1 through 5, 10a, 10b and 13, use gas as primary fuel. Monitoring for these emission units shall consist of a statement in each operating report required in Condition 92 that each of these emission units fired gas as the primary fuel during the period covered by the report. Report under Condition 91 if any fuel is burned other than gas.

7.6. For EU IDs 16 through 18 and 22, monitor, record, and report according to Condition 29.4 for the particulate matter standard.

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

8. Incinerator Particulate Matter Emissions. Particulate matter emissions from EU ID 9a may not exceed 0.08 grains/cubic foot of exhaust gas corrected to 12 percent CO_2 and standard conditions, averaged over three hours.

[18 AAC 50.050(b), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)]

8.1. Monitor, record, and report according to Conditions 9 through 11.

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

PM Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Engines (EU IDs 6 through 8) and Incinerator (EU ID 9a)

9. Particulate Matter Monitoring. The Permittee shall conduct source tests on diesel engines EU IDs 6 through 8, and Incinerator EU ID 9a, to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 9.

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

9.1. Except as provided in Condition 9.4 within six months of exceeding the criteria of Condition 9.2.a or 9.2.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 9.2; to show that emissions are below those criteria, observe emissions as described in Conditions 3.1.a, 3.1.b and 3.2 under load conditions comparable to those when the criteria were exceeded.

9.2. Conduct the PM source test or make repairs according to Condition 9.1 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.

9.3. 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.

9.4. The automatic PM source test requirement in Conditions 9.1 and 9.2 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.

10. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under Condition 9.

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

11. Particulate Matter Reporting. 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)]

11.1. Report under Condition 91

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

b. if one of the criteria of Condition 9.2 was exceeded and the Permittee did not comply with either Condition 9.1.a or 9.1.b, this must be reported by the day following the day compliance with Condition 9.1 was required;

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

11.3. In each operating report under Condition 92, 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 9.2;

b. a summary of the results of any PM testing under Condition 9; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 9.2, if they were not already submitted.

Liquid Fuel-Fired Boilers and Heaters (Group C Heaters and Boilers)

12. Particulate Matter Monitoring. The Permittee shall conduct source tests on Group C Heaters and Boilers to determine the concentration of PM in the exhaust of an emission unit as follows:

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

12.1. Except as required under Condition 12.3, conduct a PM source test according to the requirements set out in Section 6 no later than 90 calendar days after any time corrective maintenance fails to eliminate visible emissions greater than the 20 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period.

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

12.3. The PM source test requirement in Condition 12 is waived for an emission unit if:

a. a PM source test on that unit has shown compliance with the PM standard during the permit term; or

b. take corrective action and conduct two 18-minute visible emissions observations in a consecutive six-month period to show that the excess visible emissions described in Condition 12.1 no longer occur.

13. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under Condition 12.

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

14. Particulate Matter Reporting. The Permittee shall report as follows:

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

14.1. In each operating report required by Condition 92, include for the period covered by the report:

a. the dates, EU ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in Condition 3.2.e.

b. a summary of the results of any PM testing and visible emissions observations conducted under Condition 12.

14.2. Report as excess emissions, in accordance with Condition 91, any time the results of a source test for PM exceed the PM emission limit stated in Condition 7.

Sulfur Compound Emission Standards Requirements

15. Sulfur Compound Emissions. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 through 8, 10a, 10b, 11 through 13 and 22, Group B Snow Melters and Heaters, and Group C Heaters, Boilers and Turbines listed in Table A to exceed 500 ppm averaged over three hours.

15.1. For Group B units, the Permittee shall comply with monitoring, record keeping and reporting in accordance with Conditions 19.2.a and 19.2.b. For the remaining units in Condition 15, comply with Conditions 15.2 through 15.9 below.

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

For Fuel Gas (EU IDs 1 through 5, 10a, 10b, and 11 through 13)

15.2. **Monitoring**.

a. Fuel Gas Monitoring for EU IDs 1 through 5 shall be conducted in accordance with Condition 41.

b. For EU IDs 10a, 10b, and 11 through 13, the Permittee shall either

(i) obtain a semiannual statement from the fuel supplier of the fuel gas hydrogen sulfide (H_2S) concentration in ppm; or

(ii) analyze a representative sample of the fuel semiannually to determine the sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

c. The fuel sulfur analysis required under Condition 15.2.b may be performed by the owner or operator, a service contractor retained by the owner or operator, fuel vendor, or any other qualified agency.

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

a. For EU IDs 1 through 5, keep records in accordance with Condition 41.

b. For EU IDs 10a, 10b, and 11 through 13, keep records of the semiannual statement from the fuel supplier or the sulfur content analysis required under Condition 15.2.b(i) or 15.2.b(ii).

15.4. **Reporting**.

a. Report as excess emissions, in accordance with Condition 91, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 15.

b. Include copies of the records required by Condition 15.3 with the operating report required by Condition 92 for the period covered by the report.

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

For Fuel Oil[2] *(EU IDs 6 through 8 and 22, and Group C Heaters, Boilers and Turbines)*

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

a. If the fuel grade requires a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount; or

b. If the fuel grade does not require a sulfur content less than 0.5 percent by weight, keep receipts that specify fuel grade and amount and

(i) test the fuel for sulfur content; or

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

15.6. Fuel testing under Condition 15.5 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

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

15.8. The Permittee shall report as follows:

a. If SO_2 emissions calculated under Condition 15.7 exceed 500 ppm, the Permittee shall report under Condition 91. When reporting under this condition, include the calculation under Condition 15.7.

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

b. The Permittee shall include in the operating report required by Condition 92

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

(ii) for any grade with a maximum fuel sulfur greater than 0.5 percent sulfur, the fuel sulfur of each shipment; and

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

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

For North Slope Liquid Fuel (EU IDs 6 through 8 and 22, and Group C Heaters, Boilers and Turbines)

15.9. 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 92 a list of the sulfur content(s) measured for each month covered by the report.

b. The Permittee shall report under Condition 91 if the sulfur content for any month exceeds 0.75 percent.

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

Preconstruction[3] Permit Requirements

Ambient Air Quality Protection Requirements

16. Notification. The Permittee shall provide unique identification and labels on each EU listed in Table A and at the stationary source. Maintain additional information on EU category, subcategory, and EU Identification Number as applicable, in on-site logs available to the Department's compliance officers for:

16.1. Stationary EUs, Table A, Group A;

16.2. Portable Equipment, Table A, Group B;

16.3. Intermittent Well Servicing Equipment, Table A, Group C:

a. Internal Combustion Engines between 400 to 600 brake horsepower (bhp), and

b. Internal Combustion Engines larger than 600 bhp

[3] *Preconstruction* refers to permits issued before the split Construction and Operating Permits Program, and includes Federal PSD Permits, or State-issued Permits-to-Operate.

16.4. Keep records of all on-site equipment. Maintain equipment inventories for EUs listed in Table A, Group A (Stationary EUs).

[Condition 8, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

17. Used Oil. The Permittee shall not burn used oil at the stationary source.

[Condition 9, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

18. General Ambient Air Quality Provisions. The Permittee shall comply with the following provisions to protect the nitrogen dioxide (NO_2), SO_2, PM with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM-10), and carbon monoxide (CO) air quality standards:

18.1. **Stack Configuration:**

a. Construct and maintain vertical, uncapped exhaust stacks for: all permanent EUs; all portable EUs rated at or above 40 bhp; all intermittent engines rated at or above 400 bhp; and all intermittent heaters/boilers with a heat input rating of 2.8 MMBtu/hr or more. This condition does not preclude the use of flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plume.

b. Maintain the minimum exhaust stack heights listed in Table B.

Table B - Minimum Stack Height Requirements

EU ID	Description of EU	Minimum Stack Height Above Grade (m)
1	GE LM2500 Turbines	35.1
2	GE LM2500 Turbines	35.1
3	Solar Mars Turbines	35.1
4	Solar Mars Turbines	35.1
5	Solar Mars Turbines	35.1
6	Diesel Generator	35.0
7	Diesel Generator	35.0
8	Fire Water Pump	17.3
9a	Incinerator	19.8
10a	Waste Heat Recovery Units	35.1
10b	Waste Heat Recovery Units	35.1

EU ID	Description of EU	Minimum Stack Height Above Grade (m)
13	Glycol Reboiler	35.1
16	Space Heaters	10.0
17	Space Heaters	10.0
18	Space Heaters	10.0
22	Fire Water Pump	17.3

c. Provide as-built drawings of each exhaust stack for permanent EUs listed in Table B in the operating report described required by Condition 92.

[Condition 10, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

19. Fuel Sulfur Limits. The Permittee shall comply as follows:

19.1. Limit the H_2S content of the fuel gas burned in any EU to no more than 300 parts per million by volume (ppmv) at any time.

a. Monitor, record, and report the H_2S content of the fuel gas as required by Conditions 15.2 through 15.4.

19.2. Burn only ultra low sulfur diesel fuel in Group C EUs, all intermittently used oil field service equipment such as internal combustion engines, boilers/heaters rated at less than 400 hp or 2.8 MMBtu/hr, and all other non-road diesel fired engines.

a. Maintain dedicated fuel tanks for the EUs described in Condition 19.2.

b. Attach vendor receipts to the operating report required by Condition 92 that confirm that the diesel fuel delivered to the fuel tanks in Condition 19.2.a is ultra low sulfur diesel fuel.

19.3. Burn diesel fuel containing no more than 0.1 percent of sulfur by weight in diesel-fired Group A and Group B EUs.

a. Monitor, record, and report the sulfur content of the diesel fuel required by Conditions 15.5 through 15.8

[Condition 11, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

20. Operating Limits for Ambient Air Protection. The Permittee shall comply with the operating limits specified in Table C for each EU.

20.1. Monitor, record, and report in accordance with Conditions 21 and 22.

[Condition 12, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Table C - EU Specific Hourly, Daily, and Annual Limits

EU ID	Description/Operation	Rating	Daily Limits	12-months Rolling Limits
Stationary Emission Units - Group A				
1 and 2	GE LM2500 Turbines	32,715 hp (each)[3]	unrestricted	234 tons NOx (combined)
3, 4, and 5	Solar Mars Turbines	11,892 kW (each)[3]	unrestricted	249 tons NOx (combined)
6 and 7	Diesel Generators	2,180 kW (each)[3]	unrestricted	1,000 hours (combined)
8	Fire Water Pump	755 hp[3]	unrestricted	104 hours[2]
10b	Fresh Air Burner	82 MMBtu/hr[3]	unrestricted	1,000 hours
11 and 12	HP and LP Flare	25.5 MMscf/hr	200.5 MMscf	1,332 MMscf
22	Fire Water Pump	144 hp (107 kW)[3]	unrestricted	1,000 hours
Portable Equipment - Group B				
N/A	Heaters	3 MMBtu/hr	unrestricted	162,038 gal
N/A	Snow Melters	10 MMBtu/hr	unrestricted	164,422 gal
N/A	Cranes	275 bhp	unrestricted	unrestricted
Intermittent Well Servicing Equipment - Group C				
N/A	ICEs: 400 to 600 bhp[1]	1,675 bhp	unrestricted	106,032 gal
N/A	ICEs > 600 bhp[1]	1,475 bhp	unrestricted	56,713 gal
N/A	Heaters and Boilers	21.5 MMBtu/hr	unrestricted	479,719 gal
N/A	Turbines	6,200 bhp	3,262 gal	16,311 gal

Table C Notes:
1. ICE: Internal Combustion Engine
2. Operating hour limit of EU 8 applies to non-emergency use.
3. Condition 12 of AQ0503CPT07 indicated the rating of this unit as "Not Available". The rating shown above is taken from Section 1 of AQ0503CPT07 (as Table A herein).

21. Monitoring and Recording for Compliance with Condition 20. The Permittee shall comply as follows:

[Condition 13, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

21.1. Monitor and record the hours of operation each calendar month for EU IDs 1 through 8, 10b, and 22. Record monthly the cumulative 12-month rolling hours of operation for each month by the end of the following month.

21.2. For each equipment pool subject to a cumulative rated capacity limit (bhp or MMBtu/hr), record the date, time, rated capacity, and duration each EU is in service, and the cumulative total capacity used for the equipment pool for operations each day the limit applied. In lieu of monitoring and recording the time, duration, and total capacity, the Permittee may assume continuous operation for either each day or 12-hour shift the EU operates and the nameplate equipment load or vendor specified maximum load. Alternatively, for Portable Equipment listed in Section 1, Group B, and for Intermittent Equipment in Section 1, Group C, if diesel fuel burned on the island during a day is less than 1,158 gallons, then list only the total fuel burned on the island for the day.

21.3. For each EU or equipment pool subject to annual diesel fuel use limits, measure and record the total volume of diesel fuel delivered to the EU or equipment pool each calendar month. For the turbines (in Group C) subject to daily fuel use limits, measure and record the volume of diesel fuel used each day. Fuel use may be estimated by measurement techniques and calculations approved by the Department.

a. Flow meters and totalizers, if used, must be calibrated and certified to within ±5 percent.

b. Provide a statement of calibration or certification in the operating report described in the operating permit required by Condition 92, and note the date of last calibration or certification.

21.4. For the high pressure flare (EU ID 11) and low pressure flare (EU ID 12), measure and record the combined hourly, daily and monthly flaring rates, and the 12-month rolling flaring for each month by the end of the following month. Include pilot, purge, and produced gases in the flaring rate measurements.

21.5. For the Turbines (EU IDs 1 through 5), calculate and record the daily NOx emissions based on hours of operation and emission factors for specific temperature and load ranges listed in Section 15. Calculate and record the total NOx emissions for EU IDs 1 and 2 (GE LM2500 Turbines) and EU IDs 3, 4, and 5 (Solar Mars Turbines) for each month and 12-month rolling period by the end of the following month by summing the NOx emissions for each day the EUs operate during the time period.

22. Reporting: The Permittee shall report in the operating report required by Condition 92:

[Condition 14, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

22.1. For each of the following EUs subject to an hourly operational limit (e.g., MMscf, bhp, or MMBtu), list the limit and the highest hourly recordings for each month of the reporting period. For each month the limit is exceeded, list the recording for every instance the limit is exceeded:

a. EU IDs 11 and 12 (High Pressure Flare and Low Pressure Flare) listed in Group A;

b. Cranes, Heaters and Snow Melters listed in Group B, the inventory of the portable EUs including capacity; and

c. ICEs of capacity 400-600 bhp and larger than 600 bhp, Heaters and Boilers and Turbines listed in Group C, the inventory of the portable EUs including capacity.

22.2. For each of the following EUs subject to a daily operation limit (e.g., hours, MMscf, or gallons), list the limit and the highest daily recordings for each month of the reporting period. For each month the limit is exceeded, list the recording for every instance the limit is exceeded for:

a. the MMscf of fuel gas burned in EU IDs 11 and 12 (Flares);

b. the diesel fuel burned in the Group C turbines; and

c. Alternatively, if diesel fuel burned on the island during a day is less than 1,158 gallons, then report only the total fuel burned on the island for the day.

22.3. For each of the following EUs subject to a 12-month rolling total operation limit (e.g., hours, cubic feet, gallons, or MMscf) list the limit, the monthly, and 12-month rolling total for each month of the reporting period:

a. EU IDs 6, 7, 8, 10b, 11, 12, and 22 listed in Group A;

b. Heaters and Snow Melters listed in Group B;

c. ICEs of capacity 400-600 bhp and larger than 600 bhp, Heaters and Boilers and Turbines listed in Group C; and

d. Alternatively, for Portable Equipment listed in Table A, Group B, and for Intermittent Equipment in Table A, Group C, if diesel fuel burned on the island each day is less than 1,158 gallons, report only the total fuel burned on the island for the month and 12-month rolling total.

22.4. For each of the following equipment pools subject to a tons per year limit of NOx, list the limit, and 12-month rolling total for each month of the reporting period:

a. EU IDs 1 and 2 (GE LM250 Turbines) listed in Table A, Group A;

b. EU IDs 3, 4, and 5 (Solar Turbines) listed in Group A.

23. ORL for Exemption from the Requirements of 40 C.F.R. 62, Subpart III, Commercial and Industrial Wastes Burned in Incinerator (EU ID 9a). The Permittee shall comply as follows:

23.1. *Composition of Wastes Incinerated as Listed in 40 CFR 62.14525(c)(2)*: Limit incineration in EU ID 9a to at least 30 percent municipal solid waste or refuse-derived fuel.

23.2. *Monitoring of operations as Listed in 40 CFR 62.14525(c)(2(ii))*: Except as provided for in a United States Environmental Protection Agency alternate monitoring schedule or waiver, keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and waste burned in the incinerator.

23.3. Upon request, submit the records required by Condition 23.2 to EPA or the Department.

23.4. Report under Condition 91 if the incinerator(s) do not meet the limit of Condition 23.1.

[Condition 15, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3), (a)(9) & (c)(6)]
[40 C.F.R. 62.14525(c)(2)(ii), Subpart III]

BACT Emission Limits

24. Nitrogen Oxides (NOx) BACT. The Permittee shall comply as follows:

24.1. Install and operate as BACT for the following fuel burning equipment:

a. EU IDs 6 and 7 (Diesel Generators) with variable fuel injection timing retard as incorporated by the manufacturer;

b. EU IDs 1 and 2 (Turbines) with dry low NOx combustion technology; and

c. EU IDs 3 through 5 (Turbines) with SoLoNOx dry low NOx combustion technology.

24.2. Comply with the following not-to-exceed NOx emission limits:

a. For EU IDs 1 and 2 (Turbines):

(i) 25 ppmv corrected to 15 percent Oxygen and 24.3 lb/hour per unit, expressed as NO_2, at 0ºF or greater; and

(ii) 43 lb/hour per unit, expressed as NO_2, at less than 0ºF.

b. For EU IDs 3 through 5 (Turbines):

(i) 42 ppmv corrected to 15 percent Oxygen and 21.7 lb/hour per unit, expressed as NO_2, in low emissions operations and at 0ºF or greater; and

(ii) 83.4 lb/hr per unit, expressed as NO_2, at less than 0ºF or when not operating in low emission operation.

c. For EU IDs 6 and 7 (Diesel Generators): 13 g/kWh;

d. For EU ID 10a (Waste Heat Recovery Supplemental Burner): 0.10 lb NOx/MMBtu; and

e. For EU ID 10b (Waste Heat Recovery Fresh Air Burner): 0.12 lb NOx/MMBtu.

24.3. Monitor compliance as follows:

a. For EU IDs 3 through 5, monitor emissions mode (low, intermediate, or full) using continuous tracking of gas producer speed through the turbine control panel. Record the date, time and duration for which each of EU IDs 3 through 5 are in each emissions mode.

b. **NOx Recurring Testing.** The Permittee shall monitor compliance with the BACT NOx emission limits of Condition 24.2 by conducting source tests as provided below. Conduct NOx emission source tests in accordance with Section 6 as follows:

(i) For EU IDs 1 through 5, monitor, record, and report in accordance with Conditions 40.2 through 40.4 to demonstrate compliance with the short-term BACT NO_X emission limits in Conditions 24.2.a and 24.2.b.

(ii) Once during the life of the permit, verify the NOx emission rates of Conditions 24.2.a and 24.2.b as being within the BACT emission limits by conducting a NOx source test on a representative emission unit (one of EU IDs 1 or 2 and one of EU IDs 3, 4, or 5) during summer months (April through September) and during winter months (October through March).

(iii) Conduct a NOx source test on either EU ID 6 or 7; EU ID 10a; and EU ID 10b, or document completion of substitute source testing conducted on a representative emission unit as allowed under Condition 24.3.b(iii)(B) to demonstrate compliance with each limit. Record and report results of the source tests in accordance with Section 6.

(A) If all emission units within a group (EU IDs 6 and 7 are a "group"; EU ID 10a is a "group"; EU ID 10b is a "group") have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or representative source testing is required for that group.

(1) Report in the operating report required under Condition 92 if the situation in Condition 24.3.b(iii)(A) occurs.

(B) Test a unit in the same make/model/design group within 12 months after exceeding 400 hours of run time in any 12-month period ending after the effective date of this permit if a test has not been completed on any representative unit of the group during the previous 4 years.

24.4. Report NOx source test results in accordance with Section 6.

[Condition 16, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

25. Carbon Monoxide (CO) BACT. The Permittee shall comply as follows:

[Condition 17, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

25.1. Install and operate as BACT for the following fuel burning equipment:

a. EU ID 9a (Incinerator) with secondary combustion chamber; and

b. EU ID 11 (HP Flare) and EU ID 12 (LP Flare) with air-assist or sonic design and smokeless flare technology.

25.2. Comply with the following not to exceed CO emission limits:

a. For EU IDs 1 and 2:

(i) 25 ppmv corrected to 15 percent Oxygen and 14.8 lb CO/hour per unit at 0ºF or greater;

(ii) 38 lb CO/hour per unit at less than 0ºF; and

(iii) a cumulative total of 143 tons CO per 12-month rolling period.

b. For EU IDs 3 through 5:

(i) 50 ppmv CO corrected to 15 percent Oxygen and 15.7 lb/hour per unit in low emissions operations and at 0ºF or greater;

(ii) 37.1 lb CO/hr per unit in low emissions operations and at less than 0ºF;

(iii) 367 lb CO/hr per unit when not operating in low emissions operations; and

(iv) a cumulative total of 3,000 hours when not operating in low emissions operations per 12-month rolling period.

c. For EU IDs 6 and 7 (Diesel Generators): 13.2 lb CO/hour per unit.

d. For EU ID 8 (Fire Water Pump): 6.4 lb CO/hour.

e. For EU ID 10a (Waste Heat Recovery System Supplemental Burner): 0.08 lb CO/MMBtu.

f. For EU ID 10b (Waste Heat Recovery System Fresh Air Burner): 0.08 lb CO/MMBtu.

g. For EU IDs 11 and 12 (flares): 0.37 lb CO/MMBtu.

25.3. Monitor compliance as follows:

a. For EU IDs 3 through 5, calculate and record daily average CO emission rates from the turbines based on hours of operation and emission factors for specific temperature and load ranges as set out in Section 15[4]. Calculate and record the total CO emission rates for EU IDs 3 through 5 for each month and 12-month rolling period, by the end of the following month, by summing the CO rates for each day. If the cumulative total CO emission rate exceeds 504 tons per 12-month rolling period, reassess CO best available control technology for EU IDs 3 through 5 and submit to the Department with 90 days of discovery.

b. For EU IDs 1 and 2, calculate and record daily average CO emission rates from the turbines based on hours of operation and emission factors for specific temperature and load ranges as set out in Section 15[5]. Calculate and record the total CO emission rates for Units 1 and 2 for each month and 12-month rolling period, by the end of the following month, by summing the CO rates for each day the units operate during the time period to ascertain compliance with the limit listed in Condition 25.2.a(iii).

c. For EU IDs 11 and 12, operate the equipment according to specific design parameters provided by the manufacturer. Keep a copy of the manufacturer's design parameters on site and make them available to the Department personnel on request.

d. **CO Recurring Testing**. The Permittee shall monitor compliance with the BACT CO emission limits of Condition 25.2 by conducting source tests as provided below. To determine the CO emission rate, measure CO and O_2 in accordance with Methods 10 and 3A, respectively. Use Method 19 to convert CO emission concentrations to emission rates. Perform the source test in accordance with Section 6.

(i) Once during the life of the permit, verify the CO emission rates of Conditions 25.2.a and 25.2.b as being within the BACT emission limits by conducting a CO source test on a representative emission unit (one of EU IDs 1 or 2 and one of EU IDs 3, 4, or 5) during summer months (April through September) and during winter months (October through March).

(ii) Conduct a CO source test on a representative unit of EU IDs 6 or 7; EU ID 8; and EU ID 10a or EU ID 10b; or document completion of substitute source testing conducted on a representative emission unit as allowed under Condition 24.3.b(iii)(B) to demonstrate compliance with each limit. Record and report results of the source tests in accordance with Section 6.

(A) If all emission units within a group (EU IDs 6 and 7 are a "group"; EU ID 8 is a "group"; EU ID 10a is a "group"; EU ID 10b is a "group", EU ID 11 is a "group", EU ID 12 is a "group") have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or representative source testing is required for that group.

[4] Taken from Appendix A to Construction Permit AQ0503CPT07, as referenced therein at Condition 17.3a.
[5] Taken from Appendix A to Construction Permit AQ0503CPT07, as referenced therein at Condition 17.3b.

(1) Report in the operating report required under Condition 92 if the situation in Condition 25.3.d(ii)(A) occurs.

(B) Test a unit in the same make/model/design group within 12 months after exceeding 400 hours of run time in any 12-month period ending after the effective date of this permit if a test has not been completed on any representative unit of the group during the previous 4 years.

e. Use the updated CO emissions factors from CO source testing conducted under Condition 25.3.c to update CO emissions in Conditions 25.3.a through 25.3.b.

25.4. Report CO source test results in accordance with Section 6. If emissions from EU IDs 3 through 5 exceed a cumulative total of 504 tons of CO per 12-month rolling period, submit within 90 days a discovery a current best available control technology reassessment for EU IDs 3 through 5.

25.5. Report in the Operating Report required by Condition 92:

a. For EU IDs 3 through 5, the cumulative 12-month rolling total hours of operation in each emissions mode; and

b. The cumulative monthly and 12-month rolling total CO emissions from EU IDs 1 through 2 and EU IDs 3 through 5.

26. Sulfur Dioxide (SO_2 BACT). The Permittee shall comply as follows:

[Condition 18, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

26.1. Comply with the following fuel sulfur limits as representative of BACT:

a. H_2S content of gaseous fuel shall not exceed 300 ppmv;

b. Sulfur content of fuel oil shall not exceed 0.1 percent by weight.

26.2. Conduct fuel sulfur monitoring and record keeping in accordance with Conditions 19 and 15.

26.3. Report fuel sulfur content as provided for under Conditions 19 and 15.

27. Volatile Organic Compound (VOC) BACT. The Permittee shall comply as follows:

[Condition 19, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

27.1. Install and operate as BACT:

a. Unit 9a (Incinerator) with secondary combustion chamber;

b. Units 11 and 12 (HP and LP Flare) with air-assist or sonic design and smokeless flare technology;

c. Water Injection Tanks and Slop Oil Tank with a sealed system design vented to the flaring system; and

d. Portable Fuel Oil Storage Tanks with conservation vents.

27.2. Operate and maintain each pump, pressure relief device, open-ended valve or line, valve compressor and flange, or other connector in VOC or wet gas service, and each natural gas processing device or system in accordance with good operational practices. Tag and repair all leaking connectors, pumps and compressors in VOC or wet gas service as soon as practicable. Maintain a log of preventive maintenance, surveillance activities, and repairs.

28. PM-10 (PM with aerodynamic diameter not exceeding 10 microns) BACT. The Permittee shall comply as follows:

[Condition 20, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

28.1. Install and operate as BACT:

a. fuel burning equipment with good operation practices;

b. EU ID 9a with secondary combustion chamber;

c. EU IDs 11 and 12 with air-assist or sonic design and smokeless flare technology.

28.2. Comply with the following surrogate PM-10 emission limits as representative of BACT. Visible emissions (VE) from:

a. EU IDs 1 through 5 (Turbines) and EU IDs 10a and 10b (Waste Heat Recovery System Burners) shall not exceed 10 percent opacity for greater than three minutes in any one hour[6]; and

b. All industrial processes, incinerators, and fuel-burning equipment shall comply with the applicable state VE and grain loading standards in Conditions 1, 2, 7 and 8.

28.3. Monitor compliance as follows:

a. Conduct visible emission surveillance monitoring in accordance with Conditions 1 through 5 and emission source tests in accordance with Condition 9 and Section 6.

b. For EU IDs 1 through 5, conduct visible emissions observations within 12 months after the preceding observation.

c. For an emission unit with intermittent operations, complete the required visible emissions observations during the next scheduled operation following the applicable deadline for the emission unit.

[6] The BACT limit is stricter than the state emission standard in Condition 1 and Condition 2.

28.4. Report the results of the visible emission surveillance reports and emission source tests as set out in Conditions 1.1 through 1.5, 2, 5, 6, 7.1 through 7.6, 8.1, 11, and 14.

a. For EU IDs 1 through 5 (Turbines) and EU IDs 10a and 10b (Waste Heat Recovery System Burners), report visible emission results compared to the 10 percent opacity limit in Condition 28.2.a instead of the 20 percent opacity limit in Condition 1.

Insignificant Emission Units

29. For EU ID 16-18 and 22, and Group B Snow Melters and Heaters, and Group C Turbines listed in Table A and 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:

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

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

29.2. **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)]

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

[18 AAC 50.055(c)]

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

a. The Permittee shall submit the certification of compliance of Condition 93 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 74;

c. The Permittee shall report in the operating report required by Condition 92 if an emission unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds; and

d. No other monitoring, recordkeeping or reporting is required, except as provided in Conditions 18, 19, 20, 21, and 22.

[18 AAC 50.346(b)(4)]

Section 4 Federal Requirements

Emission Units Subject to Federal NSPS Subpart A

30. NSPS Subpart A Notification. For any affected facility[7] or existing facility[8] 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]

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

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

30.2. 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]

30.3. 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]

30.4. 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]

30.5. 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]

7 Affected facility means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2, effective 7/1/07.

8 *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 C.F.R. 60.2, effective 7/1/07.

30.6. 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]

30.7. any proposed replacement of an existing facility, for which the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, postmarked as soon as practicable, but no less than 60 days before commencement of replacement, and including the following information:

[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 standards of performance after the proposed replacements.

31. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 1 through 5, 9a, 10a, 10b, and 22, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1 through 5, 9a, 10a, 10b, and 22 is inoperative.

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

32. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)[9] any time a limit in Conditions 40 through 41 has been exceeded as described in this condition. Submit the EEMSP reports with the summary report form as required in Condition 33. Written reports of excess emissions shall include the following information:

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

[9] The Federal EEMSP report is not the same as the State excess emission report required by Condition 91.

32.1. The magnitude of excess emissions, 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]

32.2. Identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU IDs 1 through 5, 9a, 10a, 10b, and 22; the nature and cause of any malfunction, and the corrective action taken or preventative measures adopted.

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

32.3. 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]

32.4. A statement indicating whether or not any excess emissions occurred or the CMS was inoperative, repaired, or adjusted, at any time during the reporting period.

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

33. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU IDs 1 through 5, 9a, 10a, 10b, and 22. The report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows:

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

33.1. 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 32 is requested, or

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

33.2. 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 32.

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

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

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

35. **NSPS Subpart A Good Air Pollution Control Practice.** At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1 through 5, 9a, 10a, 10b, and 22 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1 through 5, 9a, 10a, 10b, and 22.

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

36. **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 39, 40, 41, 42, 43, 44, and 47 nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1 through 5, 9a, 10a, 10b, and 22 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]

37. **NSPS Subpart A Concealment of Emissions.** The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Conditions 39, 40, 41, 42, 43, 44, and 47. 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]

Steam Generating Units Subject to NSPS Subpart Dc (EU IDs 10a and 10b)

38. **NSPS Subpart Dc Fuel Consumption.** For each EU IDs 10a and 10b, the Permittee shall record the amounts of each fuel combusted during each day and maintain the records for a period of two years following the date of such record; or monitor according to an EPA approved custom fuel-monitoring schedule.

38.1. As an alternative to meeting the requirements of Condition 38, the Permittee may elect to record and maintain records of the amount of fuel gas combusted during each calendar month

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

Incinerators Subject to NSPS Subpart Ec (EU ID 9a)

39. The Permittee shall limit the incineration of medical/infectious wastes combusted in EU ID 9a to not greater than 10 percent by weight of the waste combusted on a calendar quarter basis.

39.1. Except as provided for in a U.S. EPA alternative recordkeeping schedule or waiver, keep readily accessible records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

39.2. For medical waste incinerated in Unit 9a, report in the Operating Report required by Condition 92 the weight of the medical/infectious waste combusted and the weight of all other fuels and wastes combusted on a calendar quarter basis. Hospital and medical/infectious wastes shall not comprise more than 10% of the fuel feed stream.

39.3. Report as an excess emission in the format provided by Condition 91 if the fuel feed stream exceeds 10% by weight of hospital and medical/infectious wastes on a calendar quarter basis.

[18 AAC 50.040(a)(2)(G)]
[40 C.F.R. 60.50c(c), Subpart Ec]

Turbines Subject to NSPS Subpart GG (EU IDs 1 through 5)

40. NSPS Subpart GG NOx Standard. The Permittee shall not allow the exhaust gas concentration of NOx from EU IDs 1 and 2 to exceed 220 ppmv at 15 percent O_2 dry exhaust basis and EU IDs 3 through 5 to exceed 172 ppmv at 15 percent O_2 dry exhaust basis.

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

a. **Waivers**. The Permittee shall provide to the Department a written copy of any U.S. EPA granted waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules upon request by the Department. The Permittee shall keep a copy of each U.S. EPA issued monitoring waiver or custom monitoring schedule with the permit.

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

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

a. **Periodic Testing**. For each turbine subject to Conditions 24.2.a, 24.2.b and 40 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 40.2.a(i) or 40.2.a(ii).

(i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the limit shown in Conditions 24.2.a, 24.2.b and 40, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, within the first applicable criteria below in the noted timeframe no later than Five Years, except as set out in Conditions 40.2.a(i)(C) and 40.2.a(ii):

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

(B) Within 1 year of the date of issue of this permit if the last source test occurred greater than five years prior to issuance of this permit and the 400-hour threshold was triggered within 6 months of the permit issue date, or

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

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the limit shown in Conditions 24.2.a, 24.2.b and 40, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the limit of Conditions 24.2.a, 24.2.b and 40.

b. **Substituting Test Data**. The Permittee may use a Method 20, or Method 7E and either Method 3 or 3A, test under Condition 40.2.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 emission limit of Conditions 24.2.a, 24.2.b and 40, and are projected under Condition 40.2.c to be less than or equal to 90 percent of the limit at maximum load;

(ii) for any source test done after the effective date of this permit, the Permittee identifies in a source test plan under Condition 83

(A) the turbine to be tested;

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

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

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

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

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

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

(iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the emission limit of Conditions 24.2.a, 24.2.b and 40.

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

(i) Conduct all tests under Condition 40.2 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

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

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

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

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

(2) a demonstration based on the additional test information that projects the test results from Condition 40.2 to predict the highest load at which emissions will comply with the limit in Conditions 24.2.a, 24.2.b and 40;

(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 Conditions 24.2.a, 24.2.b and 40;

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

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

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

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

(D) the Permittee may revise a load limit by submitting results of a more recent Method 20, or Method 7E and either Method 3 or 3A, test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 40.2.c(iii)(A); the new limit is subject to any new Department finding under Condition 40.2.c(iii)(C) and

(iv) In order to perform a Method 20, or Method 7E and either Method 3 or 3A, emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 40.2.c(iii).

(v) For the purposes of Conditions 40.2 through 40.4, maximum load means the hourly average load that is the smallest of

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

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

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

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

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

a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 40.2.c(iii) does not show compliance with the limit of Conditions 24.2.a, 24.2.b and 40 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 40.3.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 40.2.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 40.2.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 24.2.a, 24.2.b and 40, that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

40.4. **Reporting**. The Permittee shall keep report as follows

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

a. In each operating report under Condition 92 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 40.2.c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 40.3.a during the period covered by the operating report.

b. In each operating report under Condition 92 for each turbine for which Condition 40.2 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify

(i) the turbine;

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

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

c. The Permittee shall report under Condition 91 if

(i) a test result exceeds the emission standard;

(ii) Method 20, or Method 7E and either Method 3 or 3A, testing is required under Condition 40.2.a(i) or 40.2.a(ii) but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 40.2.c(iii)(B) and 40.2.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

41. NSPS Subpart GG Sulfur Standard. The Permittee shall comply with either the SO_2 standard in Condition 41.1, or the fuel sulfur content standard in Condition 41.2 below:

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

41.1. Do not allow the exhaust gas concentration of SO_2 from EU IDs 1 through 5 to exceed 150 ppmvd corrected to 15 percent O_2, or

[40 C.F.R. 60.333(a), Subpart GG]

41.2. Do not allow the sulfur content for the fuel burned in EU IDs 1 through 5 to exceed 0.8 percent by weight.

[40 C.F.R. 60.333(b), Subpart GG]

41.3. **Monitoring**. The Permittee shall monitor compliance with the standards 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 Condition 41.3.b and 41.3.c. The sulfur content of the fuel must be determined using total sulfur methods described in Condition 41.4. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86, 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 41.3.a and 41.3.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)[10] 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:

[10] 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.

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

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

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

c. For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule. The EPA-approved Custom Fuel Monitoring Schedule (8/30/88 and 8/19/96) and Alternate H_2S Sampling Method (10/2/97) allow the Permittee to determine the sulfur content of the fuel gas at least monthly using ASTM D 4810-88, ASTM D 4913-89, of Gas Producer's Association (GPA) Method 2377-86.

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

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

[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 41.3.b or 41.3.c, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined under Condition 41.3.a and recorded once per unit operating day.

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

(ii) **Custom schedules**. Notwithstanding the requirements of Condition 41.3.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 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]

41.4. **Test Methods and Procedures**. If the Permittee periodically determines the sulfur content of the fuel combusted in the turbine under Conditions 41.3.a and 41.3.d(i), a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:

[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; or D6667-01. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.

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

b. The fuel analyses required under Conditions 41.3 and 41.4 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]

41.5. **Recordkeeping**. Keep records as required under Conditions 41.3 and 41.4.

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

41.6. **Reporting**. The Permittee shall:

a. for each affected unit for which the Permittee elects to periodically determine the fuel sulfur content under Condition 41.3.a, 41.3.c or 41.3.d,

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

(ii) include with the report submitted under Condition 41.6.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 32 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 41.3.b has been made, reporting under Conditions 32, 33, and this condition is not required.

b. include a copy of the records required by Condition 41.5 with the operating report required by Condition 92 for the period covered by the report; and

c. report under Condition 91 if

(i) a test result exceeds the limit in Condition 41.1 or 41.2;

(ii) monitoring is required under Condition 41.3 but not performed; or

(iii) any reporting required under Condition 41.6 is not completed.

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

Compression Ignition CI ICE Subject to NSPS Subpart IIII (EU ID 22)

42. NSPS Subpart IIII Requirements. For EU ID 22, the Permittee shall comply with any applicable requirement for stationary compression ignition (CI) internal combustion engine (ICE) whose construction[11], modification[12], or reconstruction[13] commences after July 11, 2005.

42.1. Operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those settings that are permitted by the manufacturer.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4200(a), 60.4206, & 60.4211(a)]

42.2. Comply with the applicable provisions of Subpart A as specified in Table 8 to Subpart IIII.

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

43. NSPS Subpart IIII Fuel Requirements. The Permittee shall comply with the following:

43.1. Comply with the applicable fuel requirements in 40 C.F.R. 60.4207, as provided under 40 C.F.R. 60.4216 for engines operated in Alaska, as follows:

a. For CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel, use diesel fuel that meets the requirements of 40 C.F.R. 80.510(b) for nonroad diesel fuel.

b. For pre-2011 model year stationary CI ICE, the Permittee may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of Conditions 43.1.a beyond the date required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the Permittee is required to submit a new petition to the Administrator.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 60.4207(a) – (d) & 60.4216(a)]
[40 C.F.R. 80.510(a) & (b), Subpart I]

44. NSPS Subpart IIII Emission Standards**.** For EU ID 22, the Permittee shall comply with the emission standards in Table 4 to NSPS Subpart IIII, for all pollutants, as indicated in **Table D** below.

[11] For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
[12] As defined in 18 AAC 50.990(59).
[13] As defined in 18 AAC 50.990(88).

Table D - Emission Limits for EU ID 22:

Pollutant	g/kWh
NOx + THC[1]	4.0
CO	5.0
PM	0.30

[1] Total Hydrocarbons

[40 C.F.R. 60.4200(a)(2)(ii), Subpart IIII]
[40 C.F.R 60.4202(d), 60.4205(c) & Table 4, Subpart IIII]
[Condition 21, Construction Permit AQ0503CPT07, 10/24/12]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

45. NSPS Subpart IIII Monitoring and Recordkeeping. The Permittee shall meet the monitoring and recordkeeping requirements, as follows:

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

45.1. For EU ID 22, demonstrate compliance by purchasing an engine certified according to 40 C.F.R. Part 89 or 40 C.F.R. Part 94, as applicable, for the same model year and NFPA nameplate engine power. The engine must be installed and configured according to the manufacturer's specifications.

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

45.2. Keep records of the information in Conditions 45.2.a through 45.2.c:

a. All documentation supporting any notification;

b. Maintenance conducted on the engine; and

c. If the stationary CI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards

[40 C.F.R. 60.4211(a), Subpart IIII]
[Construction Permit AQ0503CPT07 (Condition 21), 10/24/12]

46. NSPS Subpart IIII Reporting. The Permittee shall report in the operating report required by Condition 92 the records required in Condition 45.1.

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

40 CFR 60 Subpart DDDD, Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration (CISWI) Units (EU ID 9a)

47. NSPS Subpart DDDD Requirements. The Permittee shall comply with all applicable requirements for commercial and industrial solid waste incineration (CISWI) units as specified in the final State Implementation Plan.

47.1. For EU ID 9a, which is an existing small remote incinerator unit whose construction was on or before June 4, 2010, the Permittee must achieve final compliance as expeditiously as practicable after approval of the State plan, but not later than the earlier of the two dates specified below:

a. February 7, 2018; or

b. Three years after the effective date of State plan approval.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 60.2505(b) & 60.2535(b), Subpart DDDD]

47.2. If the Permittee plans to achieve compliance more than 1 year following the effective date of State plan approval, comply with the applicable increments of progress in accordance with the respective final State plan dates to be established in Table 1 to NSPS Subpart DDDD.

a. Based on the final State plan dates to be established in Table 1 to NSPS Subpart DDDD, comply with the applicable increment of progress requirements in §§60.2580, 2585, 2590, 2595, 2600 and 2605.

[40 C.F.R. 60.2575, 60.2580, 60.2585, 60.2590, 60.2595, 60.2600, 60.2605 & Table 1, Subpart DDDD]

48. Waste Management Plan. The Permittee shall develop and submit a waste management plan no later than the date specified in Table 1 of NSPS Subpart DDDD for submittal of the final control plan.

48.1. The waste management plan must include consideration of the reduction or separation of waste-stream elements such as paper, cardboard, plastics, glass, batteries, or metals; or the use of recyclable materials. The plan must identify any additional waste management measures, and the source must implement those measures considered practical and feasible, based on the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

[40 C.F.R. 60.2620, 60.2625, 60.2630 & Table 1, Subpart DDDD]

49. Operator Training and Qualification. The Permittee shall meet the operator training requirements as follows:

49.1. The Permittee may not operate EU ID 9a unless a fully trained and qualified CISWI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified CISWI unit operator may operate the CISWI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified CISWI unit operators are temporarily not accessible, you must follow the procedures in 40 C.F.R. 60.2665.

a. Operator training and qualification must be obtained through the State-approved program or by completing the requirements included in 40 C.F.R. 60.2636(c).

[40 C.F.R. 60.2635, Subpart DDDD]

49.2. Keep records of the following available at the facility and readily accessible for all CISWI unit operators:

a. summary of the applicable standards under this subpart.

b. Procedures for receiving, handling, and charging waste.

c. Incinerator startup, shutdown, and malfunction procedures.

d. Procedures for maintaining proper combustion air supply levels.

e. Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

f. Monitoring procedures for demonstrating compliance with the incinerator operating limits.

g. Reporting and recordkeeping procedures.

h. The waste management plan required under 40 C.F.R. 60.2620 through 60.2630, as provided at Condition 48.

i. Procedures for handling ash.

j. List of the wastes burned during the performance test.

49.3. Keep records showing the names of the CISWI operators who have completed the operator training requirements under 40 C.F.R. 60.2635, met the criteria for qualification under 40 C.F.R. 60.2645, and maintained or renewed their qualification under 40 C.F.R. 60.2650 or §60.2655. Records must include documentation of training, the dates of the initial refresher training, and the dates of their qualification and all subsequent renewals of such qualifications.

49.4. For each qualified operator, keep records of the phone and/or pager number at which they can be reached during operating hours.

[40 C.F.R. 60.2660, Subpart DDDD]

50. NSPS Subpart DDDD Emission Standards. For EU ID 9a, the Permittee shall comply with the emission standards in Table 9 to NSPS Subpart DDDD, for all pollutants, as indicated in Table E below. The emission limitations apply at all times the unit is operating including and not limited to startup, shutdown, or malfunction.

a. The Permittee must maintain opacity to less than or equal to 10 percent opacity (three 1-hour blocks consisting of ten 6-minute average opacity values).

[40 C.F.R. 60.2670 & Table 9, Subpart DDDD]

Table E - Emission Limits for Small Remote Incinerator (EU ID 9a)

Pollutant	Emission Limits[a]
HCl	300 parts per million by volume dry (ppmvd)
CO	64 ppmvd
Pb	2.1 milligrams per dry standard cubic meter (mg/dscm)
Cd	0.95 mg/dscm
Hg	0.0053 mg/dscm
PM, filterable	270 mg/dscm
Fugitive ash (visible emissions)	No more than 5 percent of the hourly observation period
Dioxin, furans, total	4,400 (nanograms per dry standard cubic meter (ng/dscm)
Dioxin, furans, TEQ	180 ng/dscm
NOx	190 ppmvd
SO_2	150 ppmvd

[a] All emission limitations (except for opacity) are measured at 7 percent oxygen, dry basis at standard conditions. For dioxins/furans, the Permittee must meet either the total mass basis limit or the toxic equivalency basis limit of NSPS Subpart DDDD, Table 4.

51. Air Pollution Control Device, Testing, and Monitoring. Prior to the first compliance test, a petition must be submitted to identify a proposed air pollution control device and determine appropriate surrogate monitoring parameters, CEMS and/or COMS and CPMS's as appropriate. The petition must contain the information outlined in 40 C.F.R. 2680.

[40 C.F.R. 60.2675 & 60.2680, Subpart DDDD]

51.1. Conduct an initial air pollution control device inspection within 60 days after installation of the control device and the associated CISWI unit reaches the charge rate at which it will operate, but no later than 180 days after the final compliance date as specified in Condition 47.

51.2. Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless the owner or operator obtains written approval from the state agency establishing a date whereby all necessary repairs of the designated facility must be completed.

[40 C.F.R. 60.2706, Subpart DDDD]

51.3. **Initial Compliance**: The Permittee must conduct a performance test, as required under 40 C.F.R 60.2690 and 60.2670, to determine compliance with the emission limitations in Condition 50, and to establish operating limits using the procedures in 40 C.F.R. 60.2675 or 60.2680. The performance test must be conducted using the test methods listed in Table 9 of NSPS Subpart DDDD and the procedures in 40 C.F.R. 60.2690. The use of the bypass stack during a performance test shall invalidate the performance test. The Permittee must conduct a performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

[40 C.F.R. 60.2700, Subpart DDDD]

a. The initial performance test must be conducted no later than 180 days after the final compliance date as specified in Condition 47.

[40 C.F.R. 60.2705, Subpart DDDD]

b. Except as allowed by 40 C.F.R. 60.2720, an annual performance test must be conducted between 11 and 13 months from the previous performance test.

[40 C.F.R. 60.2715, Subpart DDDD]

51.4. **Continuous Compliance**. The Permittee must comply as follows:

a. Conduct an annual performance test for the pollutants listed in Condition 50 and opacity as required under 40 C.F.R. 60.2690. The annual performance test must be conducted using the test methods listed in Table 9 of Subpart DDDD and the procedures in 40 C.F.R. 60.2690. Opacity must be measured using EPA Reference Method 9 at 40 CFR Part 60. Annual performance tests are not required if you use CEMS or continuous opacity monitoring systems to determine compliance.

[40 C.F.R. 60.2710(b), Subpart DDDD]

(i) The annual performance test shall include an annual visual emissions test for ash handling.

[40 C.F.R. 60.2710(e), Subpart DDDD]

(ii) The annual performance tests must be conducted within 11 to 13 months of the previous performance test.

[40 C.F.R. 60.2715, Subpart DDDD]

b. Continuously monitor the operating parameters approved in the petition described in Condition 51 and/or required under 40 C.F.R. 60.2675, 60.2680, 60.2735, 60.2710, and 60.2730.

[40 C.F.R. 60.2710(c), Subpart DDDD]

52. Recordkeeping. The Permittee shall meet the monitoring and recordkeeping requirements, as follows:

52.1. For each continuous monitoring system required or optionally allowed under 40 C.F.R. 60.2730, The Permittee must monitor and collect data as specified in 40 C.F.R. 60.2735.

[40 C.F.R. 60.2735, Subpart DDDD]

52.2. Keep records specified in 40 C.F.R 2740 as applicable for a period of at least 5 years.

[40 C.F.R. 60.2740, Subpart DDDD]

52.3. All records must be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

[40 C.F.R. 60.2745, Subpart DDDD]

53. Reporting. The Permittee shall report as follows:

53.1. Comply with the reporting requirements shown in Table 5 of NSPS Subpart DDDD.

[40 C.F.R. 60.2750, Subpart DDDD]

53.2. Submit the waste management plan no later than the date specified in Table 1 of NSPS Subpart DDDD for submittal of the final control plan.

[40 C.F.R. 60.2755, Subpart DDDD]

53.3. Submit a test report as described in 40 C.F.R. 60.2760 no later than 60 days following the initial performance test.

[40 C.F.R. 60.2760, Subpart DDDD]

53.4. Submit an initial annual report no later than 12 months following the submission of the initial test report required under Condition 53.3.

[40 C.F.R. 60.2765, Subpart DDDD]

53.5. Submit subsequent annual reports meeting the requirements of 40 C.F.R. 60.2770, no more than 12 months following the previous report.

[40 C.F.R. 60.2765, Subpart DDDD]

53.6. Report deviations in accordance with 40 C.F.R. 60.2775 and 60.2780.

[40 C.F.R. 60.2775 & 60.2780, Subpart DDDD]

Emission Units Subject to Federal NESHAPS Subpart A (EU ID 6, 7, 8)

54. NESHAP Subpart A General Requirements.

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

54.1. For EU IDs 6, 7 and 8, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart ZZZZ.

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

Stationary Reciprocating Internal Combustion Engines (RICE) Subject to NESHAPs Subpart ZZZZ (EU IDs 6, 7, 8 and 22)

55. NESHAP Subpart ZZZZ Requirements for New RICE. For EU ID 22, the Permittee must meet the requirements of NESHAP Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60, Subpart IIII, as provided at Conditions 42 through 46. No further requirements apply for such engines under this part.

[40 C.F.R. 63.6590(c)(6)]

56. NESHAP Subpart ZZZZ Compliance Deadline for Existing RICE. For EU IDs 6, 7, and 8, the Permittee shall comply with the applicable requirements of Conditions 55 through 59 beginning no later than May 3, 2013.

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

57. NESHAP Subpart ZZZZ Requirements. For EU IDs 6, 7, and 8 comply with the following requirements at all times.

[40 C.F.R. 63.6603(b)(1) & 6605(a), Subpart ZZZZ]

NESHAP Subpart ZZZZ General Monitoring, Operation, and Maintenance Requirements

57.1. **Good Air Pollution Control Practices.** Operate and maintain EU IDs 6, 7, and 8, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 6, 7, and 8.

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

57.2. For EU IDs 6, 7 and 8, 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. 63.6625(e) & 6640(a), and Table 6 (Item 9) of Subpart ZZZZ]

57.3. **Startup and Idle Time.** For EU IDs 6, 7, and 8, 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. 63.6603(b)(1), 6625(h) & Table 2d (Item 1), Subpart ZZZZ]

NESHAP Subpart ZZZZ Emissions Management Practices

57.4. For EU IDs 6, 7, and 8 comply with the following:

a. Change the oil and filter every 1,000 hours of operation or annually, whichever comes first[14];

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. 63.6603(a) & Table 2d (Item 1) of Subpart ZZZZ]

NESHAP Subpart ZZZZ Recordkeeping

58. Recordkeeping. For each of EU IDs 6, 7, and 8, keep the following records:

58.1. Keep records of maintenance conducted on EU IDs 6, 7, and 8 to demonstrate that the engines and after-treatment control device (if any) are operated and maintained according to Conditions 57.2 and 57.4. 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(d) & (e), Subpart ZZZZ]

58.2. 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 on site. The remaining 3 years of data 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]

NESHAP Subpart ZZZZ Reporting

59. Reporting. The Permittee shall report as follows:

59.1. Include in the operating report required by Condition 92 a report of Subpart ZZZZ deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 of Subpart ZZZZ) was not met.

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

[14] 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 57.4.a. [ref. 40 C.F.R. 63, Subpart ZZZZ, Table 2c, footnote 2]

59.2. Notify the Department per Condition 91 if any of the requirements in Conditions 54 through 59 were not met.

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

General Federal Requirements

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

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

61. Protection of Stratospheric Ozone, 40 C.F.R. 82

Subpart F – Recycling and Emissions Reduction

61.1. **Refrigerant Recycling and Disposal.** The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.

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

Subpart G – Significant New Alternatives Policy (Halon)

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

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

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

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

NESHAPs Applicability Determinations

62. 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).

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

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

63. NSPS and NESHAP Reports. The Permittee shall:

63.1. **Reports:** Attach to the operating report required by Condition 92 for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10; and

63.2. **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 and f), and 71.6(c)(6)]

Section 5 General Conditions

Standard Terms and Conditions

64. 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)]

65. 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)]

66. 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)]

67. **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]

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

68.1. the stationary source's assessable potential to emit of 1,985 TPY; or

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

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

b. material balance calculations;

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

d. other methods and calculations approved by the Department.

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

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

69.1. no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN: Assessable Emissions Estimate, 410 Willoughby Ave., 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

69.2. 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 68.1.

[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)]

70. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 6 through 8, 11 through 13, and all units in Groups B and C:

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

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

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

70.4. EU IDs 6, 7 and 8 are subject to this condition only until the applicable compliance date as set forth in Condition 56.

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

71. 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)]

72. 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)]

72.1. 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 72.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

72.2. The Permittee shall report according to Condition 74.

73. 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)]

74. 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)]

74.1. Monitoring, Recordkeeping, and Reporting for Condition 74:

a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 91.

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 74.

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

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 74; or

b. the Department notifies the Permittee that it has found a violation of Condition 74.

74.3. The Permittee shall keep records of

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 74; and

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

74.4. With each operating report under Condition 92, 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.

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

75. 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[15] listed in Conditions 24, 25, 26, 27, 28, 38, 39, 40, 41, 44, 50, and 61 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 91 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 91.

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

Open Burning Requirements

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

76.1. 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.

76.2. Compliance with this condition shall be an annual certification conducted under Condition 93.

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

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

Section 6 General Source Testing and Monitoring Requirements

77. 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)]

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

[18 AAC 50.220(b)]

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

78.2. 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.

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

79.1. 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]

79.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 61.

[18 AAC 50.040(b) & 50.220(c)(1)(B)]
[40 C.F.R. 61]

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

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

79.4. Source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9 and may use the form in Section 11 to record data.

[18 AAC 50.030 & 50.220(c)(1)(D)]

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

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

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

[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]
[40 C.F.R. 51, Appendix M]

79.7. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(24) & 50.220(c)(2)]
[40 C.F.R. 63, Appendix A, Method 301]

80. 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)]

81. Test Exemption. The Permittee is not required to comply with Conditions 83, 84 and 85 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.2) or Smoke/No Smoke Plan (Condition 3.3).

[18 AAC 50.345(a)]

82. 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)]

83. Test Plans. Except as provided in Condition 81, 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 77 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)]

84. **Test Notification.** Except as provided in Condition 81, 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)]

85. **Test Reports.** Except as provided in Condition 81, 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 88. 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)]

86. **Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 7 and 8, 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

87. 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)]

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

87.2. 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

88. 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.

88.1. 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 88.1.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)]

89. 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 88.

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

90. 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)]

91. Excess Emissions and Permit Deviation Reports.

91.1. Except as provided in Condition 74, 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 91.1.c(ii) and 91.1.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 91.1.c(i); and

(iii)for failure to monitor, as required in other applicable conditions of this permit.

91.2. 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.

91.3. 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)]

92. Operating Reports. During the life of this permit[16], the Permittee shall submit to the Department an original and one copy of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

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

92.2. If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 92.1,

a. The Permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

(iv) a description of the excess emissions or permit deviation; and

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

b. When excess emissions or permit deviations have already been reported under Condition 91, the Permittee shall cite the date or dates of those reports.

92.3. The operating report must include a listing of emissions monitored under Conditions 3.2.e, 3.3.c, and 40.2.a(ii) which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report.

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

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

d. the monitoring result which triggered the additional monitoring.

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

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

93. 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[17].

93.1. 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;

93.2. **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.

93.3. 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)]

94. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions, by emission unit, of CO, NH_3, NO_X, PM_{10}, $PM_{2.5}$, SO_2, VOCs and Lead (Pb) (and lead compounds) using the form in Section 14 of this permit, as follows:

94.1. Each year by March 31, if the stationary source's potential to emit emissions for the previous calendar year:

a. equal or exceed 250 tons per year (TPY) of NH_3, PM_{10}, $PM_{2.5}$ or VOCs; or

b. equal or exceed 2500 TPY of CO, NO_X or SO_2.

[17] See Condition 93.2 for clarification on the number of reports required.

94.2. Every third year by March 31 if the stationary source's potential to emit emissions for the previous calendar year exceed:

a. 5 tons per year of lead (Pb), 1000 TPY of CO; or

b. 100 TPY of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_X or VOCs.

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

94.4. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Table 2A of Appendix A to Subpart A of 40 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 (12/17/08)]

Section 8 Permit Changes and Renewal

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

95.1. 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[18];

95.2. The information shall be submitted to the same address as in Condition 93.3.

95.3. 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

95.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

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

96. 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)]

97. 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:

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

97.2. 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;

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

[18] The documents required in Condition 95.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501.

97.4. 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)]

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

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

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

98.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 98.

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

99. 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

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

100.1. included and specifically identified in the permit; or

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

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

101. The Permittee must comply with each permit term and condition.

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

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

a. an enforcement action;

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

c. denial of an operating permit renewal application.

[18 AAC 50.040(j), 326(j) & 50.345(a) & (c)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

102. 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)]

103. 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

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

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

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

103.4. 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

104. 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.

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

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

105.2. 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)]

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

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

Table F - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All Gas-Fired Heaters	40 C.F.R. 60 Subpart D, Da, & Db	Heat input capacities below applicability threshold (250 MMBtu/hr) and units not classified as Fossil-Fuel fired steam generating units.
Heaters EU IDs 13 & 16 through 18	40 C.F.R. 60 Subpart Dc	Heat input capacities below applicability threshold (10 MMBtu/hr) and units not classified as steam generating units.
Heaters, EU IDs 10a & 10b	40 C.F.R. 60 Subpart A: 60.7(a)(4)	This requirement only applies to "existing facilities," as defined in 40 C.F.R. 60.2
	40 C.F.R. 60 Subpart A: 60.7(c) & (d)	The provisions of 60.7(c)&(d) apply only to New Source Performance Standards which require the installation of a continuous monitoring system (CMS) or monitoring device, as defined in 60.2; BPX is not required to install a CMS monitoring device per Subpart Dc.
	40 C.F.R. 60 Subpart A: 60.8 40 C.F.R. 60 Subpart Dc: 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, 60.47c, 60.48c(a)(4), (b)-(f) & (h)	Standards for SO2 and PM and related performance test, monitoring, and reporting requirements not applicable for affected stationary source fired on fuel gas.
	40 C.F.R. 60 Subpart Dc: 60.48c(a)(2)-(3)	Stationary source is not subject to any requirements that limit the annual capacity factor for any fuel or mixture of fuels

All Storage Tanks	40 C.F.R. 60 Subpart K	Commenced construction after applicability date of subpart (i.e., after 5/19/78)
All Storage Tanks	40 C.F.R. 60 Subpart Ka	Commenced construction after applicability date of subpart (i.e., after 7/23/84)
	40 C.F.R. 60 Subpart Kb	Subpart does not apply to storage vessels greater than 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or a capacity greater than 75 m^3 but less than 151 m^3 and with a maximum true vapor pressure less than 15.0 kPa
Turbines, EU IDs 1 through 5	40 C.F.R. 60 Subpart GG: 60.332(a)(1)	Standard only applies to Electric Utility Stationary Gas Turbines, as defined in subpart – emission unit is not an Electric Utility Gas Turbine as defined in Subpart GG.
	40 C.F.R. 60 Subpart GG: 60.334(e), (f) – Monitoring of Operations	This requirement only applies to affected turbines that commence construction after July 8, 2004. Emission units commenced construction, modification, or reconstruction after July 11, 2005.
	40 C.F.R. 60 Subpart GG: 60.334(h)(2) - Monitoring of Operations	BPXA has not claimed an allowance for fuel bound nitrogen to calculate the applicable NOx emission limit under 40 C.F.R. 60.332.
	40 C.F.R. 60 Subpart A: 60.7(a)(4)	This requirement only applies to "existing facilities," as defined in 40 C.F.R. 60.2
	40 C.F.R. 60 Subpart A: 60.8(a) 40 C.F.R. 60 Subpart GG: 60.335(b), (c)(1), (c)(3) (Initial Performance Test Only)	Obsolete requirements – completed as required except for other times as required by the Administrator under Section 114 of the Act.
All Flares	40 C.F.R. 60 Subpart A: 60.18	These flares are not control devices used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61
EU IDs 6 through 8	40 C.F.R. 60 Subpart IIII	EU IDs 6 through 8 have not commenced construction, modification, or reconstruction after July 11, 2005. The permit shield for Subpart IIII only applies to currently installed units until modified, reconstructed or replaced.
Stationary Source-Wide	40 C.F.R. 60 Subpart J, GGG, QQQ	Stationary source does not meet the definition for a petroleum refinery
	40 C.F.R. 60 Subpart KKK	Stationary source does not meet the definition for an on-shore natural gas processing plant as defined in the subpart
	40 C.F.R. 60 Subpart LLL	Stationary source does not operate natural gas sweetening unit(s)
	40 C.F.R. 60, Subpart OOOO – Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution	The stationary source does not have any onshore affected facilities listed in 40 C.F.R. 60.5365(a) through (g) for which BPXA commenced construction, modification, or reconstruction after August 23, 2011 (the applicability date of the rule). Northstar Production Facility is on an artificial island and therefore an off-shore stationary source.
	40 C.F.R. 61 Subpart A	Requirements only apply to sources subject to any provisions of 40 C.F.R. 61
	40 C.F.R. 61 Subpart J	No process components in benzene service, as defined by subpart (10% benzene by weight)
	40 C.F.R. 61 Subpart M: 61.142	Stationary source in not an Asbestos Mill
	40 C.F.R. 61 Subpart M: 61.143	Stationary Source roadways not exposed to asbestos tailings or asbestos containing waste

	40 C.F.R. 61 Subpart M: 61.144	Stationary source does not engage in any manufacturing operations using commercial asbestos
	40 C.F.R. 61 Subpart M: 61.146	Stationary source does not spray apply asbestos containing materials
	40 C.F.R. 61 Subpart M: 61.147	Stationary source does not engage in any fabricating operations using commercial asbestos
	40 C.F.R. 61 Subpart M: 61.148	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos
	40 C.F.R. 61 Subpart M: 61.149	Applies to only this facilities subject to 61.142
	40 C.F.R. 61 Subpart M: 61.151	Applies to only those facilities subject to 61.142, 61.144, or 61.147
	40 C.F.R. 61 Subpart M: 61.152	Stationary source does not use air cleaning equipment
	40 C.F.R. 61 Subpart M: 61.153	No reporting requirements apply for sources subject to 61.145
	40 C.F.R. 61 Subpart M: 61.154	Stationary source is not an active waste disposal site and does not receive asbestos containing waste material
	40 C.F.R. 61 Subpart M: 61.155	Stationary source does not process regulated asbestos containing material (RACM)
Activities Subject to 40 C.F.R. 61, Subpart M 61.145	40 C.F.R. 61 Subpart A: 61.05(a), 61.07, 61.09	Owners or operators of demolition and renovation operation are exempt from the requirements of 61.05(a), 61.07, and 61.09
	40 C.F.R. 61 Subpart A: 61.10	Demolition and renovation operations are exempt from 61.10(a)
	40 C.F.R. 61 Subpart A: 61.10	Emission tests or monitoring is not required under the standards for demolition and renovation
Stationary Source-Wide	40 C.F.R. 61 Subpart V	No process components in volatile hazardous air pollutant (VHAP) service, as defined by subpart (> or = 10% 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. 63 Subpart T	Stationary source does not operate halogenated solvent cleaning machines
	40 C.F.R. 63 Subpart CC	Stationary source does not meet the definition for a petroleum refinery
	40 C.F.R. 63 Subpart HH	This stationary source exclusively processes, stores, or transfers “black oil” (defined in the final promulgated rule as a petroleum liquid with an initial producing gas-to-oil ratio (GOR) less than 1,750 scf/bbl and an API gravity less than 40 degrees). Therefore, the black oil exemption under 40 C.F.R. 63.760(e)(1) of the Subpart HH applies.
	40 C.F.R. 63 Subpart YYYY	Northstar Production Facility is not a major source of HAPs and turbines located on the North Slope of Alaska are categorically exempt from this rule.
	40 C.F.R. 63 Subpart DDDDD	Northstar Production Facility is not a major source of HAPs.

	40 C.F.R. 63 Subpart CCCCCC	There are no stationary gasoline dispensing facilities located at Northstar Production Facility.
All Heaters and the Glycol Reboiler (EU ID 13)	40 C.F.R. 63 Subpart JJJJJJ	These units are not "boilers" as defined in 40 C.F.R. 63.11237. The stationary source does not have any affected equipment (boilers).
All Storage Tanks	40 C.F.R. 63 Subpart OO	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO
	40 C.F.R. 63 Subpart SS	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart SS
Drain Systems	40 C.F.R. 63 Subpart RR	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR
Stationary Source-Wide	40 C.F.R. 63 Subpart VV	Provisions only apply to oil-water separators and organic-water separators affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart VV
	40 C.F.R. 63 Subpart HH	Stationary source exempt from subpart because it is not a major source of HAPs and because potential benzene emissions from the affected facilities are less than 1 ton per year.
	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 and stationary source is not a major source of HAPs.
	40 C.F.R. 63 Subpart EEEE	Stationary source is not a major source of HAPs.
Stationary Source-Wide	40 C.F.R. 64 – Compliance Assurance Monitoring	No pollutant-specific emission unit uses a control device to achieve compliance with any emission limitation or standard and has major source pre-control emission rates.
	40 C.F.R. 68 – Risk Management Programs	"Naturally occurring hydrocarbon mixtures: (crude oil, condensate, natural gas and produced water) prior to entry into a petroleum refining process unit (NAICS code 32411) or a natural gas processing plant (NAICS code 211112) are exempt from the threshold determination. (See final Rule exemption from threshold determination regulated flammable substances in naturally occurring hydrocarbons mixtures prior to initial processing, 63 FR 640 [January 6, 1998]). Less than 10,000 lbs. of other mixtures containing regulated flammable substances that meet the criteria for an NFPA rating of 4 for flammability are stored at the stationary source. Therefore, a crude petroleum and natural gas production stationary source, (NAICS codes 211112) does not process or store regulated flammable or toxic substances in excess of threshold quantities.
	40 C.F.R. 82 Subpart A: 82.1	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 Subpart B: 82.30	Stationary source does not service motor vehicles air conditioners.
	40 C.F.R. 82 Subpart C: 82.60	Stationary source is not the ultimate consumer and not a manufacturer or distributor of Class I or II products or substances.
Stationary Source-Wide	40 C.F.R. 82 Subpart D: 82.80	Subpart applies only to Federal Departments, agencies, and instrumentalities.
	40 C.F.R. Subpart E: 82.100	Stationary source is not the ultimate consumer and not manufacturer or distributor of Class I or II products or substances.
	40 C.F.R. 82 Subpart F: 82.158	Stationary source does not manufacture or import recovery and recycling equipment.
	40 C.F.R. 82 Subpart F: 82.160	Stationary source does not contract equipment testing organization to certify recovery and recycling equipment.
	40 C.F.R. 82 Subpart F: 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 certified recovery equipment.
	40 C.F.R. 82 Subpart F: Appendix D	Stationary source does not have technician certification program.
	40 C.F.R. 82 Subpart F: 82.174(a)	Stationary source does not manufacture substitute chemicals or products for ozone-depleting substances.
	40 C.F.R. 82 Subpart F: 82.270(a)	Stationary source does not manufacture Halon.
Group B & C I.C. Engines	40 C.F.R. 63 Subpart ZZZZ	Portable (Group B) and Intermittent Well Servicing IC Engines (Group C) are non-road engines that do not meet the definition of a Stationary reciprocating internal combustion engine (RICE) per 40 C.F.R. 63.6675 (Definitions).
Existing Engines (EU IDs 6, 7, 8, and 22)	40 C.F.R.63 Subpart ZZZZ: 63.6600, 63.6601, and 63.6602 –Emission Limits	Northstar Production Facility is not a major source of HAPs.
	40 C.F.R.63 Subpart ZZZZ: 63.6610 and 63.6622 – Testing and Initial Compliance	Reporting requirements only applies to "new" or reconstructed stationary RICE which fire landfill gas or digester gas which is equivalent to 10 percent or more of the gross heat input on an annual bases. No units fire landfill or digester gas.
	40 C.F.R.63 Subpart ZZZZ: 63.6650(g) - Reporting Requirements	The engines do not fire landfill or digester gas and a CEMs or CPMS is not required.
	40 C.F.R.63 Subpart ZZZZ: Table 2b - Operating Limitations	There are no requirements in Table 2b of Subpart ZZZZ that apply to these engines because Northstar Production Facility is not accessible by the FAHS and are not required to meet the CO emission limits.
	40 C.F.R.63 Subpart ZZZZ: 40 CFR 63.6604 - Fuel Requirements	Northstar Production Facility is not accessible by the FAHS and RICE at the facility is exempt from the fuel requirements.
	40 C.F.R.63 Subpart ZZZZ: 40 CFR 63.6612 - Testing and Initial Compliance Requirements	Northstar Production Facility is not accessible by the FAHS and RICE at the facility is exempt from CO limits and therefore exempt from testing and initial compliance requirements.
	40 C.F.R.63 Subpart ZZZZ: 63.6630 - Initial Compliance Demonstration	There are no performance testing requirements that apply to these engines because there are no applicable emission limitations.

Existing Engines (EU IDs 6, 7, 8, and 22)	40 C.F.R.63 Subpart ZZZZ: 63.6625(g) – Monitoring, installation, Collection, Operation and Maintenance Requirements	Northstar Production Facility is not accessible by the FAHS and RICE at the facility and are exempt from these requirements.
	40 C.F.R.63 Subpart ZZZZ: 63.6635- Monitoring to Demonstrate Continuous Compliance	These requirements apply only to CI RICE subject to emissions or operational limits. There are no emissions or operational limits that apply to these engines.
	40 C.F.R.63 Subpart ZZZZ: 63.6645 – Notification Requirements 40 C.F.R.63 Subpart A: 63.9 - Notification Requirements	Per 40 CFR 63.6645(a)(5), initial notification is not required for existing stationary CI RICE that is not subject to any numerical emission standards.
	40 C.F.R.63 Subpart A: 63.7 - Performance Testing Requirements	There is no performance testing requirements that apply to these engines as there are no emission limits.
	40 C.F.R.63 Subpart A: 63.8 - Monitoring	Per 40 CFR 63.6645(a)(5), these engines are not subject to the requirements of §63.8(e), (f)(4) and (f)(6), since these engines do not have an emission limit.
Incinerator EU ID 9a	40 C.F.R. 60, Subpart E	The incinerator has a charging rate of less than 50 tons per day.
	40 C.F.R. 60, Subpart Ea	The incinerator was not constructed after December 20, 1989 and on or before September 20, 1994 and it was not reconstructed or modified after December 20, 1989 and on or before June 19, 1996. The incinerator has a charging rate of less than 250 tons per day.
	40 C.F.R. 60, Subpart Eb	The incinerator has a charging rate of less than 250 tons per day.
	40 C.F.R. 60, Subpart Ec	The incinerator combusts hospital, medical, and infectious waste and was constructed after June 20, 1996. However, the Administrator was notified of a co-fired combustor exemption claim and provided an estimate of the relative amounts of hospital waste, medical/infectious waste, and other fuels and wastes to be combusted. Therefore, under 40 C.F.R. 60.50c(c), the incinerator is exempt from 40 C.F.R. 60, Subpart Ec, except for the recordkeeping requirements found in 40 C.F.R. 60.50c.
	40 C.F.R. 60, Subpart O – Standards of Performance for Sewage Treatment Plants;	The incinerator does not combust sewage sludge.
	40 C.F.R. 60, Subpart AAAA – New Source Performance Standards for New Small Municipal Waste Combustors.	The capacity of the incinerator is less than the applicability threshold (35 tons per day).
	40 C.F.R. 60, Subpart BBBB – for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	The Permittee is not the Administrator of an air quality program in a state or United States protectorate.
	40 C.F.R. 60, Subpart CCCC – Standards of Performance for New Commercial and Industrial Solid Waste Incineration Units.	Construction of the incinerator commenced prior to the applicability date of November 30, 1999.
	40 C.F.R. 60, Subpart EEEE	The incinerator was not constructed after December 9, 2004 and it was not reconstructed or modified on or after June 16, 2006.

	40 C.F.R. 60, Subpart FFFF	This subpart applies to Administrators of an air quality program in a State or United States protectorate with one or more existing OSWI units or air curtain incinerators subject to this subpart.
	40 C.F.R. 61, Subpart E	The incinerator does not process mercury ore, use mercury chlor-alkali cells, or incinerate or dry wastewater treatment plant sludge.
	40 C.F.R. 62, Subpart FFF	The capacity of the incinerator is less than the applicability threshold (250 tons per day of municipal solid waste).
	40 C.F.R. 62, Subpart HHH	The incinerator was constructed after the applicability date of June 20, 1996.
	40 C.F.R. 62, Subpart III	The incinerator burns greater than 30 percent municipal solid waste or refuse-derived fuel, is subject to a Federally enforceable requirement, and has a capacity to burn less than 35 tons per day of municipal solid waste or refuse-derived fuel. In addition, the Administrator was notified that the incinerator meets these criteria. Therefore, the incinerator is exempt from 40 C.F.R. 62, Subpart III, except for the recordkeeping requirements found in 40 C.F.R. 62.14525(c)(2)(ii) [ref. 40 C.F.R. 62.14525(c)(2)].
	40 C.F.R. 62, Subpart JJJ	The capacity of the incinerator is less than the applicability threshold (35 tons per day).
	18 AAC 50.050(b) – particulate matter standards for incinerators	The incinerator does not incinerate sludge from a municipal wastewater treatment that serves 10,000 or more persons and the incinerator is rated at less than 1000 lb/hr total.
Non-Road Engines at Stationary Source	18 AAC 50.055	The limits of 18 AAC 50.055 do not apply to non-road engines.

[40 C.F.R. 71.6(f)(1)(ii)]

Section 11 Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

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

  Wet Bulb Temperature: can be measured using a sling psychrometer

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

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

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

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

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

  Observer's Signature, Date: sign and date after performing VE observation.
- Organization: observer's employer.

Certified By, Date: name of "smoke school" certifying observer and date of most recent certification.

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

Page No._____

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12 Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75 percent by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A. = 31,200 x [**wt%S_{fuel}**] = 31,200 x _____ = _____

B. = 0.148 x [**wt%S_{fuel}**] = 0.148 x _____ = _____

C. = 0.396 x [**wt%C_{fuel}**] = 0.396 x _____ = _____

D. = 0.933 x [**wt%H_{fuel}**] = 0.933 x _____ = _____

E. = B + C + D = _____ + _____ + _____ = _____

F. = 21 – [**vol%$_{dry}$O2, $_{exhaust}$**] = 21 - _____ = _____

G. = [**vol%$_{dry}$O2, $_{exhaust}$**] ÷ F = _____ ÷ _____ = _____

H. = 1 + G = 1 + _____ = _____

I. = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight 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 Condition 15.5. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_2$, exhaust) is obtained from oxygen meters, manufacturer's data, or from the most recent ORSAT analysis at the same engine load used in the calculation.

Enter all of the data in percentages without dividing the percentages by 100. For example, if wt%S_{fuel}l = 1.0%, then enter 1.0 into the equations not 0.01 and if vol%$_{dry}O_2$, exhaust = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13 ADEC Notification Form[19]

Northstar Production Facility	AQ0503TVP02
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

[19] Revised as of August 20, 2008.

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

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

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

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

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

Certify Report (Go to end of form.)

Section 2. Permit Deviations

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

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recording/Reporting/Compliance Certification

☐ Standard Conditions Not Included in the Permit

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

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Recordkeeping Failure

☐ Insignificant Emission Unit

☐ Stationary Source Wide

(b) Emission Unit Involved:

Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding permit conditions and the deviation.

EU ID	EU Name	Permit Condition/ Potential Deviation

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

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

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

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

To Submit this Report:

Fax to: 907-451-2187

Or

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

If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 92.

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 State of Alaska Department of Environmental Conservation Division of Air Quality	Emission Inventory Year- [ ]

Mandatory information is highlighted. Make additional copies as needed.

Inventory start date:	
Inventory end date:	
Inventory Type:	

Facility Information:

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

Emission Unit:

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

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

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

	Hours/Day of Operation:
	Hours/Year of Operation:

EMISSIONS					
Pollutant	**Emission Factor**	**Emission Factor Numerator**	**Emission Factor Denominator**	**Emission Factor Source**	**Tons Emitted**
CO					
NH3					
NOX					
PM10-PRI					
PM25-PRI					
SO2					
VOC					
Lead and lead compounds					

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

	Datum:

Certification:

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

Printed Name:_____Title_____Date _____

Signature:_____ Phone number_____

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

To Submit this report:

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

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)]

Section 15 Emission Factors (EFs) for Primary Turbines

[Construction Permit AQ0503CPT07 (Appendix A), 10/24/12]

CO Emission Factors for Solar Mars 90

Operating Condition	Predictive Emission Rate (lbs/hr)
Below 0º F	
Low %NGP (≤86%)	Maximum value of 369
Medium %NGP (>86%, ≤90%)	Average value of 317.8
High %NGP (>90%)	Maximum value of 30.8
Above 0º F	
Low %NGP (≤86%)	Maximum value of 367
Medium %NGP (>86%, ≤90%)	Average value of 238.9
High %NGP (>90%)	Maximum value of 15.7

NOx Emission Factors for Solar Mars 90

Operating Condition	Predictive Emission Rate (lbs/hr)
Below 0º F	
Low %NGP (≤79%)	Maximum value of 6.2
Medium %NGP (>79%, ≤90%)	0.8029*[%NGP]-57.196
High %NGP (>90%, ≤94.7%)	Average value of 20.4
Very High %NGP (>94.7%)	Average value of 28.4
Above 0º F	
Low %NGP (≤84%)	Maximum value of 5.4
Medium %NGP (>84%, ≤90%)	1.2408*[%NGP]-98.796
High %NGP (>90%, ≤94.7%)	Average value of 13.4
Very High %NGP (>94.7%)	Average value of 10.3

NOx Emission Factors (lb/hr) for GE LM2500

Mean Daily Temperature (°F)	Average Daily Load	
	>75%	**≤75%**
≥59	21	18
<59 and ≥ 10	23	20
<10 and ≥ 0	37	34
<0	20	19

CO Emission Factors (lb/hr) for GE LM2500

Mean Daily Temperature (°F)	Average Daily Load	
	>75%	≤75%
≥59	13	11
<59 and ≥ 10	14	12
<10 and ≥ 0	33	17
<0	12	7

Note: The Department approved site-specific emission factors for NOx and CO for the GE LM2500 turbine inlet temperatures below 0º F on July 31, 2003.