DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0183TVP02

Issue Date: Public Comment - April 19, 2012
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 **Gathering Center #2 (GC#2)**. The stationary source, as defined by this permit, is the surface structures and their associated permanent emission units located on the GC#2 production pad and Prudhoe Bay Unit (PBU) well pads H, J, M, N, Q, R, S, U, W, and Z. Temporary emission units (e.g., drill rigs and associated activities and oil production support equipment) that periodically operate at these well pads are governed by a separate operating permit.

This permit satisfies the obligation of the owner and operator to obtain an operating permit as set out in AS 46.14.130(b). As set out in AS 46.14.120(c), the Permittee shall comply with the terms and conditions of this operating permit.

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

All stationary source-specific terms and conditions of Operating/Construction Permit No. AQ0183TVP01 Revision 1, Minor Permit No. AQ0183MSS01, and Owner Requested Limit No. AQ0183ORL01 have been incorporated into this operating permit**.**

Upon effective date of this permit, Operating/Construction Permit No. AQ0183TVP01 Revision 1 expires, except that the construction permit terms identified by citation specific to Permit No. AQ0183TVP01 Revision 1 remain in effect until modified or replaced by a Title I permitting action under 18 AAC 50.

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

AAAQS ..... Alaska Ambient Air Quality Standards

ADEC ..... Alaska Department of Environmental Conservation

AS ..... Alaska Statutes

ASTM ..... American Society for Testing and Materials

BACT ..... Best Available Control Technology

Bbls ..... U.S. Petroleum Barrels (42 gallons)

BHp ..... Boiler Horsepower; Brake Horsepower

Btu ..... British thermal unit

C.F.R. ..... Code of Federal Regulations

CI ..... Compression Ignition

The Act ..... Clean Air Act

CO ..... Carbon Monoxide

CO_2 ..... Carbon Dioxide

CO_2e ..... CO_2 equivalent emissions

dscf ..... Dry standard cubic foot

EPA ..... US Environmental Protection Agency

EU ..... Emission Unit

GHG ..... Greenhouse Gas

gr/dscf ..... Grain per dry standard cubic foot (1 pound = 7000 grains)

GPH ..... Gallons per hour

HAPs ..... Hazardous Air Pollutants [HAPs as defined in AS 46.14.990(14)]

Hp ..... Horsepower

H_2S ..... Hydrogen Sulfide

ICE ..... Internal Combustion Engine

ID ..... Emission Unit Identification Number

ISO ..... International Organization for Standardization (Operating conditions corresponding to sea level and 59 deg. F)

kPa ..... KiloPascals

kW ..... Kilowatt

kW-e ..... kiloWatts electric[1]

LAER ..... Lowest Achievable Emission Rate

LHV ..... Lower Heating Value

MACT ..... Maximum Achievable Control Technology as defined in 40 C.F.R. 63

MMBtu ..... Million British Thermal Units

MMBtu/hr ..... Million British Thermal Units per Hour

MMscf ..... Million Standard Cubic Feet

MMscf/hr ..... Million Standard Cubic Feet per Hour

MR&R ..... Monitoring, Recordkeeping, and Reporting

NG ..... Natural Gas

NESHAPs ..... Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]

NGL ..... Natural Gas Liquids

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

PS ..... Performance Specification

psia ..... Pounds per Square Inch (absolute)

PSD ..... Prevention of Significant Deterioration

PSI ..... Pounds per Square Inch (pressure)

PTE ..... Potential to Emit

RICE ..... Reciprocating Internal Combustion Engine

RM ..... Reference Method

S ..... Sulfur

SIC ..... Standard Industrial Classification

SO_2 ..... Sulfur dioxide

TBD ..... To Be Determined

TPH ..... Tons per hour

TPY ..... Tons per year

ULSD ..... Ultra-Low Sulfur Diesel

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

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

Section 1. Stationary Source Information

Identification

Permittee:	**BP Exploration (Alaska) Inc.** 900 East Benson Blvd. (zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	
Stationary Source Name:	**Gathering Center #2 (GC#2)**	
Location:	Prudhoe Bay, Alaska Production Pad: Section 16, Township 11N, Range 13E, Umiat Meridian Z-Pad: Section 19, Township 11N, Range 12E, Umiat Meridian	
Physical Address:	Prudhoe Bay, Alaska UTM Zone 6, 430080 E, 7801520 N	
Owners:	BP Exploration (Alaska) Inc. 900 East Benson Blvd. (zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612	ConocoPhillips Alaska Inc. 700 G St. (zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360
	Chevron USA Inc. P.O. Box 36366 Houston, TX 77236	ExxonMobil Alaska Production, Inc. 3301 C St., Ste. 400 (zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601
Operator:	BP Exploration (Alaska) Inc.	
Permittee's Responsible Official:	Mr. Dale Kruger Greater Prudhoe Bay Operations Manager BP Exploration (Alaska) Inc.	
Designated Agent:	CT Corporation Systems 9360 Glacier Hwy., Ste 202 Juneau, AK 99801	
Permit and Fee Contact:	Rachel Buckbee Environmental Advisor BP Exploration (Alaska) Inc. Rachel.Buckbee@bp.com (907) 564-5363	
Stationary Source and Building Contact:	John Hanson/ Tom Simpson BP Exploration (Alaska) Inc. akopsgc2facilityotl@bp.com (907) 659-4916	
Process Description: SIC Code: NAICS Code:	1311 -- Crude Oil and Natural Gas Production 211111 - Crude Petroleum and Natural Gas Extraction	

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

Section 2. Emission Unit Inventory and Description

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

Table A – Emission Unit Inventory [1, 2]

EU ID	Tag No.	Emission Unit Description	Rating/Size	Commenced Construction, Startup, or Modification/Reconstruction Date[3]
Group I - Gas Turbines at the Production Pad				
1	GTRB-02-7000	GE MS5382C Compressor	38,000 Hp ISO	Modified 1999
2	GTRB-02-7001	GE MS5382C Compressor	38,000 Hp ISO	Modified 1999
4	GTRB-02-7704A	Sulzer S3 Pump	7,910 Hp ISO	Commenced Construction Prior to 8/82
5	GTRB-02-7704B	Sulzer S3 Pump	7,910 Hp ISO	Commenced Construction Prior to 3/83
6	GTRB-02-7529	Ruston TB 5000 Pump	4,900 Hp ISO	Commenced Construction Prior to 12/81
7	GTRB-02-7504A	Ruston TA 2500 Pump	2,500 Hp ISO	Commenced Construction Prior to 12/81
8	GTRB-02-7504B	Ruston TA 2500 Pump	2,500 Hp ISO	Commenced Construction Prior to 12/81
Group II - Gas Fired Heaters at the Production Pad				
9[4]	B-02-7000	Cleaver Brooks 200800 EG Heater (Dual Fired)	33.5 MMBtu/hr (heat input, LHV)	Commenced Construction Prior to 12/81
10[4]	B-02-7001	Cleaver Brooks 200800 EG Heater (Dual Fired)	33.5 MMBtu/hr (heat input, LHV)	
11[4]	B-02-7002	Cleaver Brooks 200800 EG Heater (Dual Fired)	33.5 MMBtu/hr (heat input, LHV)	
12[4]	B-02-0001	Cleaver Brooks 200500 EG Boiler (Dual Fired)	20.9 MMBtu/hr (heat input, LHV)	Commenced Construction Prior to 4/77
13[4]	B-02-0002	Cleaver Brooks 200500 EG Boiler (Dual Fired)	20.9 MMBtu/hr (heat input, LHV)	
14[4]	B-02-0003	Cleaver Brooks 200500 EG Heater (Dual Fired)	20.9 MMBtu/hr (heat input, LHV)	
15[4]	B-02-0004	Cleaver Brooks 200500 EG Heater (Dual Fired)	20.9 MMBtu/hr (heat input, LHV)	
16	B-02-0067	BS&B TEG Reboiler	7.73 MMBtu/hr (heat input, LHV)	Commenced Construction Prior to 4/77. Modified 8/2004.
17	B-02-0068	BS&B TEG Reboiler	7.73 MMBtu/hr (heat input, LHV)	
Group III – Liquid Fuel Fired Equipment at the Production Pad				
18	GNED-02-0001	Detroit Diesel Emergency Generator	737.6 Hp (550 kW)	Approximately 1976/77
19	GNED-02-0002	Detroit Diesel Emergency Generator	737.6 Hp (550 kW)	Approximately 1976/77
20	GNED-01-0011	Detroit Diesel Emergency Generator	737.6 Hp (550 kW)	Approximately 1976/77
21	PED-02-0049	Detroit Diesel Emergency Firewater Pump	280 Hp	Approximately 1976/77

EU ID	Tag No.	Emission Unit Description	Rating/Size	Commenced Construction, Startup, or Modification/Reconstruction Date[3]
22	PED-02-7004	Detroit Diesel Emergency Firewater Pump	280 Hp	Approximately 1982/83
23	GNED-02-7500	Detroit Diesel Emergency Generator	3,600 Hp (2,685 kW)	Approximately 1981/82
24	GTRB-02-8001	Allison 501KB Emergency Turbine Generator	5,000 Hp (3,730 kW)	Approximately 1983/84
Group IV – Flares				
25	FL-02-0001	KALDAIR LP/HP Vertical Emergency Flares	1.18 MMscf/day (pilot & purge gas)	Approximately 1977
26	FL-02-0002			
27	FL-02-0003	KALDAIR LP/HP Vertical Emergency Flares		Approximately 1977
28	FL-02-0004			
29	FL-02-0005	KALDAIR HP Vertical Emergency Flares		Approximately 1977
30	FL-02-0006			
31	FL-02-0007	KALDAIR HP Vertical Emergency Flare		Approximately 1977
32	FL-02-0008	National Horizontal Burn Pit Emergency Flare		Unknown
Group V – Fixed Roof Storage Tanks at the Production Pad Greater than 10,000 Gallon Capacity				
33	T-02-7703	Oil Skim Storage Tank	493,500 gallons	Constructed 1982
34	T-02-8511	Oil Skim Storage Tank	577,122 gallons	Installed 1991
35	T-02-8512	Oil Skim Storage Tank	577,122 gallons	Installed 1991
Well Pad Z				
36[5]	H-Z06111	GTS Energy Bath Heater (Fuel Gas)	37 MMBtu/hr (heat input, HHV)	Commenced Construction 6/27/06
37[6]	Camp Generator #1	CAT D379B PC Emergency Diesel Generator	599 Hp (420kW)	9/1981
38[6]	Camp Generator #2	CAT D379B PC Emergency Diesel Generator	599 Hp (420kW)	10/1981

Notes:

1. The stationary source, as defined by this permit, is the surface structures and their associated permanent emission units located on the GC#2 production pad and Prudhoe Bay Unit well pads H, J, M, N, Q, R, S, U, W, and Z. There are no permanent significant emission units at the PBU well pads associated with the GC#2 stationary source, except at Z Pad.

2. EU ID 3 at Well Pad W (as listed in Permit No. AQ0183TVP01 Rev. 1) has been removed from service and, therefore, is not included in this table. This Solar Mars combustion turbine was subject to a PSD BACT emission limit under EPA PSD-X81-13. If the Permittee elects to return this unit to service, the Permittee would need to submit an off-permit source change notice. The source change proposal may require Title I Permitting.

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

4. EU IDs 9 – 15 are dual fuel-fired units without operating limits on either fuel type. The liquid fuel firing capability is designed for emergency situations and the units are rarely fired on liquid fuel.

5. Installation of EU ID 36 was authorized under Minor Permit No. AQ0183MSS01 issued December 29, 2006.

6. EU IDs 37 and 38 do not qualify as "nonroad" engines because they are drill rig camp generators that operate at the Well Pad Z for more than 12 consecutive months. These emission units are subject to an owner requested limit under ORL No. AQ0183ORL01 (issued April 08, 2011) as reflected in Condition 23 in order to avoid the requirements for a minor permit. Once they return to their nonroad status, the Permittee will operate them under the Transportable Drilling Rigs Permit, Operating Permit No. AQ0455TVP01.

[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, 2, 4 – 32, and 36 – 38 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1 For EU IDs 1, 2, 4 – 8, 16, 17, and 36, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 76 indicating whether each of these emission units fired only gas during the period covered by the report. Report under Condition 75 if any fuel is burned other than gas.

1.2 For EU IDs 9 – 15, use only gas as primary fuel. Monitoring for these emission units shall consist of a certification in each operating report required in Condition 76 that each of these emission units fired only gas, except as follows: if operated on a back-up liquid fuel at any time during the operating report period, monitor, record and report according to Condition 13.

1.3 For each of EU IDs 18 – 22, as long as the emission unit does not exceed the applicable rolling 12-month operating time limit in Condition 16, monitoring shall consist of an annual compliance certification under Condition 77 with the visible emissions standard in accordance with Condition 24.4. Otherwise, monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term.

1.4 For each of EU IDs 23, 24, 37, and 38, monitor, record, and report in accordance with Conditions 2 through 4.

1.5 For each of EU IDs 25 – 32, monitor, record, and report in accordance with Condition 5.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

For Liquid Fuel-Fired Emission Units (EU IDs 18 – 24, 37, and 38)

2. Visible Emissions Monitoring. The Permittee shall observe the exhaust of EU IDs 18 – 22 (if required under Condition 1.3) and EU IDs 23, 24, 37, and 38 for visible emissions using the Method 9 Plan under Condition 2.1. The Permittee may for each unit elect to continue the visible emission monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable. The Permittee shall state the intention of using this option in the first operating report required by Condition 76 submitted under the renewed permit.

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

2.1 **Method 9 Plan.** 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[1].

a. **First Method 9 Observation.** Perform the first Method 9 observation, as follows:

(i) For each of EU IDs 37 and 38, observe exhaust for 18 minutes within six months after the effective date of this permit, or when the unit is next operated, whichever is later.

(ii) For any liquid fuel-fired unit replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

(iii) For any of EU IDs 18 – 22 no longer considered insignificant as set out by Condition 1.3, observe exhaust for 18 minutes of operation within 30 days after the calendar month during which that threshold has been exceeded, or within 30 days of the unit's next operations, whichever is later.

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

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

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

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

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

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

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

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

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

3. Visible Emissions Recordkeeping. When required by any of Conditions 1.3, 1.4, or 13.4, or in the event of replacement of any of EU IDs 9 – 15, 18 – 24, 37, and 38 during the permit term, the Permittee shall keep records as follows:

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

3.1 For all Method 9 observations of Condition 2.1, the observer shall record:

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

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

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

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

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

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

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

4. Visible Emissions Reporting. When required by any of Conditions 1.3, 1.4, or 13.4, or in the event of replacement of any of EU IDs 9 – 15, 18 – 24, 37, and 38 during the permit term, the Permittee shall report visible emissions as follows:

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

4.1 Include in each operating report under Condition 76 for the period covered by the report for each emission unit under the Method 9 Plan:

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

b. a summary to include:

(i) number of days observations were made;

(ii) highest six-minute average observed; and

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

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

4.2 Report under Condition 75:

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

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

For Flares (EU IDs 25 – 32)

5. Visible Emissions Monitoring, Recordkeeping, and Reporting. The Permittee shall observe one daylight flare event[2] within 12 months after the preceding flare event observation or within 12 months after the permit effective date, whichever is later. When flare events are intermittent (i.e. typically no more than once per year) then the Permittee shall observe the next daylight flare event immediately following 12-months after the preceding observation, or immediately following 12 months after the permit effective date, whichever is later.

5.1 Monitor flare events using Method-9.

5.2 Record the following information for observed events:

a. the flare(s) EU ID number;

b. results of the Method-9 observations;

c. reason(s) for flaring;

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

e. volume of gas flared.

5.3 Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. If monitoring of a flare event is postponed for any of the reasons described in this condition, the Permittee shall include in the next operating report required by Condition 76 an explanation of the reason the event was not monitored.

5.4 Attach copies of the records required by Condition 5.2 with the operating report required by Condition 76 for the period covered by the report.

5.5 Report under Condition 75 whenever the visible emission standard in Condition 1 is exceeded or the monitoring required under Condition 5 is not completed.

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

Particulate Matter Emissions Standards

6. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1, 2, 4 – 32, and 36 – 38 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

[2] 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 assists 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.

6.1 For EU IDs 1, 2, 4 – 8, 16, 17, and 36, burn only gas as fuel. Monitoring for these emission units shall consist of a certification in each operating report under Condition 76 indicating whether each of these emission units fired only gas during the period covered by the report. Report under Condition 75 if any fuel is burned other than gas.

6.2 For EU IDs 9 – 15, use only gas as primary fuel. Monitoring for these emission units shall consist of a certification in each operating report required in Condition 76 that each of these emission units fired only gas during the period covered by the report, except as follows: if operated on a back-up liquid fuel at any time during the operating report period, monitor, record and report according to Condition 13.

6.3 For each of EU IDs 18 – 22, as long as the emission unit does not exceed the applicable rolling 12-month operating time limit in Condition 16, monitoring shall consist of an annual compliance certification under Condition 77 with the particulate matter standard in accordance with Condition 24.4. Otherwise, monitor, record, and report in accordance with Conditions 7 and 9 for the remainder of the permit term.

6.4 For each of EU IDs 23, 24, 37, and 38, monitor, record, and report in accordance with Conditions 7 and 9.

6.5 For each of EU IDs 25 – 32, the Permittee must annually certify compliance under Condition 77 with the particulate matter standard.

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

Particulate Matter Monitoring, Recordkeeping and Reporting

For Liquid Fuel-Fired Engines and Turbines (EU IDs 18 – 24, 37, and 38)

7. Particulate Matter Monitoring for Diesel Engines and Turbines. The Permittee shall observe the exhaust of EU IDs 18 – 22 (if required under Condition 6.3) and EU IDs 23, 24, 37, and 38 to determine the concentration of particulate matter (PM) in the exhaust as follows:

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

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

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

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

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

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

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

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

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

8. Particulate Matter Recordkeeping for Diesel Engines. Within 180 calendar days after the effective date of this permit or within 30 days of startup, whichever is later, the Permittee shall record the exhaust stack diameters of EU IDs 37 and 38. Report the stack diameters in the next operating report under Condition 76.

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

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

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

9.1 Report under Condition 75:

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

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

9.2 Report under Condition 75 observations in excess of the thresholds of Conditions 7.2a or 7.2b within 30 days of the end of the month in which the observations occur;

9.3 In each operating report under Condition 76, include for the period required by the report:

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

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

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

For Liquid Fuel-Fired Heaters and Boilers (EU IDs 9 – 15)

10. Particulate Matter Monitoring for Liquid Fuel-Fired Heaters and Boilers. The Permittee shall conduct source tests on EU IDs 9 – 15 (per Condition 13.2) to determine the concentration of PM in the exhaust as follows:

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

10.1 Except as required under Condition 10.3, 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.

10.2 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.

10.3 The PM source test requirement in Condition 10 is waived for an emission unit if:

a. PM source test during the most recent semiannual reporting period on that unit shows compliance with the PM standard since permit issuance, or

b. if a follow-up visible emission observation conducted using Method-9 during the 90 days shows that the excess visible emissions described in Condition 2.1e no longer occur.

11. Particulate Matter Recordkeeping for Liquid Fuel-Fired Heaters and Boilers. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under Condition 10.

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

12. Particulate Matter Reporting for Liquid Fuel-Fired Heaters and Boilers. The Permittee shall report as follows:

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

12.1 In each operating report required by Condition 76, 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 2.1e; and

b. a summary of the results of any PM testing and visible emissions observations conducted under Condition 10.

12.2 Report as excess emissions, in accordance with Condition 75, any time the results of a source test for PM exceeds the PM emission limit stated in Condition 6.

VE and PM Monitoring, Recordkeeping and Reporting for Dual Fuel-Fired Units

For Dual Fuel-Fired Emission Units (EU IDs 9 – 15)

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

13.1 For any of EU IDs 9 – 15 that does not exceed 400 hours of operations per calendar year per emission unit on a back-up liquid fuel, monitoring of compliance for visible emissions and particulate matter is not required for that emission unit and monitoring shall consist of an annual certification of compliance with Conditions 1 and 6 under Condition 77.

13.2 For any of EU IDs 9 – 15, notify the Department and begin monitoring the affected emission unit according to Condition 13.3 no later than 15 days, after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel. If the observation exceeds the limit in Condition 1, monitor as described in Condition 10. If the observation does not exceed the limit in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year[3].

13.3 When required to do so by Condition 13.2, observe the 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.

13.4 Keep records and report in accordance with Conditions 3and 4, and Conditions 11 and 12, as applicable.

13.5 Report under Condition 75 if the Permittee fails to comply with Conditions 13.2, 13.3, or 13.4.

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

Sulfur Compound Emission Standards

14. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1, 2, 4 – 32, and 36 – 38 to exceed 500 ppm averaged over three hours.

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

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

Sulfur Compound Emissions Monitoring, Recordkeeping and Reporting

For Fuel Gas[4] (EU IDs 1, 2, 4 – 17, and 36)

14.1 For EU IDs 1, 2, 5, and 7, to ensure compliance with Condition 14, the Permittee shall comply with the fuel sulfur content limit as required by Condition 15[5].

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14.2 The Permittee shall analyze a representative sample of the fuel gas burned by gas-fired emission units at the production center and of the fuel gas burned by gas-fired heaters at each drill site monthly to determine the total sulfur and H_2S content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1); or

14.3 Keep records of the records of the sulfur content analysis required under Condition 14.2.

14.4 The Permittee shall report as follows:

a. Include copies of the records required by Condition 14.3 with the operating report required by Condition 76 for the period covered by the report.

b. Report as excess emissions, in accordance with Condition 75, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 14.

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

For North Slope Liquid Fuel (EU IDs 9 – 15, 18 – 24, 37, and 38)

14.5 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.

14.6 The Permittee shall include in the operating report required by Condition 76, a list of the sulfur content measured for each month covered by the report.

14.7 Report as excess emissions, in accordance with Condition 75, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 14. When reporting under this condition, include the calculated SO_2 emissions in ppm using Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

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

[4] *Fuel gas*, as the term is used in the context of this condition, is described generally by the definition of natural gas found in 40 C.F.R. 60.41b, effective 10/08/09.

[5] For EU IDs 1, 2, 5, and 7, compliance with the fuel gas hydrogen sulfide limit of Condition 15 will assure compliance with the 500-ppm SO_2 emission limit of Condition 14.

For Other Fuel Oil[6] (EU IDs 9 – 15, 18 – 24, 37, and 38)

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

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

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

(i) test the fuel for sulfur content using an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1); or

(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.

14.9 The Permittee shall report as follows:

a. Report in each operating report required by Condition 76, all records obtained under Condition 14.8.

b. Report as excess emissions, in accordance with Condition 75, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 14. When reporting under this condition, include the calculated SO_2 emissions in ppm using Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

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

Pre-Construction[7] Permit Requirements

Owner Requested Limits to Avoid Prevention of Significant Deterioration (PSD) Major Modification and Protect Ambient Air Quality

15. Fuel Gas H_2S Requirements, EU IDs 1 and 2. The Permittee shall not burn fuel gas in EU IDs 1, 2, 5, and 7 with a hydrogen sulfide concentration (H_2S) that exceeds 25 ppmv at standard conditions, annual average. Upon completion[8] of a Department approved air quality modeling, the Permittee may apply for a permit modification to change this limit as approved.

15.1 Monitor and record the fuel gas H_2S concentration according to Conditions 14.2 and 14.3.

[6] *Oil* as the term is used in the context of this condition is described generally as crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 C.F.R. 60.41b, effective 10/08/09.

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

[8] Completion means the Department approval date, or if approved through a Title I permit decision, the effective date of that permit.

15.2 Report in the operating report required by Condition 76, the consecutive 12-month period average fuel gas H_2S concentration for each month of the reporting period:

15.3 Report in accordance with Condition 75 any time the 12-month period average fuel gas H_2S concentration exceeds the limit in Condition 15.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

16. Operational Hour Limits, EU IDs 18 – 24. The Permittee shall limit the hours of operation for EU IDs 18 – 24 to no greater than 200 hours (each) per consecutive 12-month period.

16.1 Monitor and record the total monthly and the consecutive 12-month period summation of total operational hours (emergency and non-emergency) for each of EU IDs 18 – 24 per this condition and Condition 17.

16.2 Report in the operating report required by Condition 76, the monthly and consecutive 12-month period summation of hours of operation for each of EU IDs 18 – 24 for each month of the reporting period.

16.3 Notify the Department in accordance with Condition 75 whenever an emission unit is operated beyond the limit of this condition.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

17. Turbine Owner Requested Limits, EU IDs 1 and 2. The Permittee shall avoid classification as a Prevention of Significant Deterioration major modification by ensuring compliance with the owner requested limits in Table B below.

Table B – Turbine Owner Requested Limits

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Unit	Annual Emission Limit (TPY)
NO_X	1 & 2	GE/MS5382C	GTRB-02-7000 GTRB-02-7001	85 ppmvd @ 15% O_2	1,053 (combined)
CO	1 & 2	GE/MS5382C	GTRB-02-7000 GTRB-02-7001	20 ppmvd @ 15% O_2	No Limit
VOC	1 & 2	GE/MS5382C	GTRB-02-7000 GTRB-02-7001	No Limit	8.8 (combined)

17.1 To ensure compliance with the turbine short-term emission limits:

a. Operate EU IDs 1 and 2 with lean head end (LHE) combustors to control NO_X emissions.

b. Conduct NO_X emission source tests on EU IDs 1 and 2 in accordance with Section 6 and the methodology and timeframe of Conditions 34.1 through 34.3 to demonstrate compliance with the short-term turbine NO_X emission limits in Table C; and to develop current emission factors for Section 13. Conduct the tests at no less than four loads representative of each turbine's typical operating range unless that operating range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the turbine(s). Provide within the source test report NO_X emissions in ppmv at 15% O_2; lb/MMBtu of fuel gas burned, and lb/hour for each load.

c. Within 12 months of the effective date of this permit and within every five years thereafter, conduct CO emission source tests on EU IDs 1 and 2 in accordance with Section 6 to demonstrate compliance with the short-term turbine CO emission limits in Table B; and to develop current emission factors for Section 13. The tests shall be conducted at no less than four loads representative of each turbine's typical operating range unless that operating range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the turbine(s). Substituting test data is allowed if the Permittee documents the intent to substitute testing for multiple turbines and meets all other requirements of Conditions 34.1b(i) through 34.1b(iii). The source test report shall provide CO emissions in ppmv at 15% O_2 for each load.

d. Report in accordance with Condition 75 should the emissions of any air pollutant exceed the short-term emission limit for that pollutant in Table B.

17.2 To ensure compliance with the turbine annual emission limits:

a. Calculate and record the monthly and the consecutive 12-month summations of emissions of NO_X and VOC for EU IDs 1 and 2 using the emission factors found in Section 13 of this permit, along with the hours of operation and/or amount of fuel used as monitored under Condition 18 and/or 19.

b. Report the monthly and the consecutive 12-month period summations of NO_X and VOC emissions from Condition 17.1a, for each month of the reporting period within each operating report required by Condition 76.

c. Report in accordance with Condition 75 should the emissions of any air pollutant exceed the annual emission limit for that pollutant in Table B.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

18. Operational Hour Monitoring, EU IDs 1, 2, 4 – 24, and 36. The Permittee shall monitor, record and report the hours of operation as follows:

18.1 Monitor and record the monthly operating time for each of EU IDs 1, 2, 4 – 24, and 36.

18.2 For each of EU IDs 9 – 15, monitor and record the monthly operating time separately for fuel gas and liquid fuel firing, and record the consecutive 12-month total liquid fuel operating time.

18.3 Report in the operating report under Condition 76, the data recorded under Condition 18.1 and 18.2 for each month of the reporting period.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

19. Fuel Consumption Monitoring, EU IDs 1, 2, 4 – 32, and 36. The Permittee shall monitor the monthly fuel consumption for EU IDs 1, 2, 4 – 32, and 36 as emission unit group totals as follows:

a. For EU IDs 1, 2, 4, and 5, maintain and operate a monitoring device (e.g., fuel gas meter) to measure the total volume of fuel gas consumed by EU IDs 1, 2, 4, and 5 combined.

b. For EU IDs 6 – 8, maintain and operate a monitoring device to measure the total volume of fuel gas consumed, or estimate the total volume of fuel consumed by using recorded operating hours.

c. For EU IDs 9 – 32, estimate the total volume of fuel consumed by each emission unit based on records of monthly runtime or flaring, as appropriate.

d. For EU ID 36, compile the daily fuel consumption data recorded under Condition 32 to generate a monthly fuel consumption total.

19.1 Monitor and record the monthly fuel consumption for each fuel-fired emission unit group shown in Table A (Groups I through IV) and for fuel-fired emission units at each aggregated well pad.

19.2 Report in the operating report under Condition 76, the total quantity and type of fuel burned in each emission unit group (Groups I through IV and at each aggregated well pad), and the total quantity of fuel burned at the stationary source (MMscf per month for fuel gas-fired emission units and gallons per month for liquid fuel-fired emission units).

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Best Available Control Technology (BACT) Limits

20. Turbine BACT Limits, EU IDs 4 – 8. The Permittee shall limit actual emissions from EU IDs 4 – 8 as indicated in Table C below.

Table C – Turbine BACT Limits

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Unit	Annual Emission Limit per Individual Turbine (TPY)
NO_X	4 & 5	Sulzer/S3	GTRB-02-7704A GTRB-02-7704B	169 ppmvd @ 15% O_2	230
	6	Ruston TB5000	GTRB-02-7529	154 ppmvd @ 15% O_2	141
	7 & 8	Ruston TA2500	GTRB-02-7504A & GTRB-02-7504B	150 ppmvd @ 15% O_2	86
CO	4 & 5	Sulzer/S3	GTRB-02-7704A GTRB-02-7704B	0.17 lb/MMBtu for each unit	56
	6	Ruston TB5000	GTRB-02-7529		38
	7 & 8	Ruston TA2500	GTRB-02-7504A & GTRB-02-7504B		24
PM	4	Sulzer/S3	GTRB-02-7704A	0.014 lb/MMBtu	4.6
	5	Sulzer/S3	GTRB-02-7704B	No BACT Limit	4.6
	6	Ruston TB5000	GTRB-02-7529	0.014 lb/MMBtu	3.2
	7 & 8	Ruston TA2500	GTRB-02-7504A & GTRB-02-7504B	0.014 lb/MMBtu	2.0
SO_2	5	Sulzer/S3	GTRB-02-7704B	No BACT limit	1.5
Opacity	4 & 5	Sulzer/S3	GTRB-02-7704A GTRB-02-7704B	10%, consecutive 6-minute average	No BACT Limit
	6	Ruston TB5000	GTRB-02-7529		
	7 & 8	Ruston TA2500	GTRB-02-7504A & GTRB-02-7504B		

20.1 To ensure compliance with the turbine short-term emission limits:

a. For EU IDs 4 – 8, monitor, record, and report as follows to ensure compliance with the short-term BACT NO_X, CO, PM, SO_2, and Opacity emission limits in Table C:

(i) Conduct NO_X emission source tests on EU IDs 4– 8 in accordance with Section 6 and the methodology and timeframe of Conditions 34.1 through 34.3 to demonstrate compliance with the short-term turbine BACT NO_X emission limits in Table C; and to develop current emission factors for Section 13. Conduct NO_X emission source tests on EU ID 4 and EU ID 6 through 8 consistent with NO_X emission source testing methodology for NSPS Subpart GG turbines listed in Condition 34.1 through.34.3. The tests shall be conducted at no less than four loads representative of each turbine's typical operating range unless that range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the turbine(s). Provide within the source test report NO_X emissions in ppmv at 15% O_2; lb/MMBtu of fuel gas burned, and lb/hour for each load.

(ii) Within 12 months of the effective date of this permit and within every five years thereafter, conduct CO and PM emission source tests in accordance with Section 6 to demonstrate compliance with the short-term turbine BACT CO emission limits in Table C; and to develop current emission factors for Section 13. The tests shall be conducted at no less than four loads representative of each turbine's typical operating range unless that operating range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the turbine(s). Substituting test data is allowed if the Permittee documents the intent to substitute testing for multiple turbines and meets all other requirements of Conditions 34.1b(i) through 34.1b(iii). The source test report shall provide CO and PM emissions in lb/MMBtu and lb/hour for each load.

b. For EU IDs 4 – 8, conduct annual visible emission observations, the first to be completed within 12 months of the effective date of this permit to demonstrate compliance with the short-term turbine BACT Opacity limit in Table C. The observations shall be conducted as specified by 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

(i) Conduct subsequent visible emission observations within twelve months after the preceding observation.

(ii) Record and report as required under Conditions 3.1 and 4.1 except report results compared to the 10 percent opacity limit, instead of 20 percent opacity, under Condition 4.1b(iii).

c. Report in accordance with Condition 75 should the emissions of any air pollutant exceed the short-term emission limit for that pollutant in Table C.

20.2 To ensure compliance with the turbine annual emission limits:

a. Calculate and record the monthly and the consecutive 12-month summations of emissions of NO_X, CO, PM, and SO_2 for EU IDs 4 – 8 to ensure compliance with the annual emission limits in Table C as follows:

(i) For NO_X, PM, and CO emissions, use the emission factors found in Section 13 of this permit, along with the hours of operation and/or amount of fuel used as determined in Condition 17 and/or 19 to calculate the monthly emissions for each unit.

(ii) For SO_2 emissions, calculate and record the monthly and consecutive 12-month rolling total SO_2 emissions using a mass balance equation with the quantity of fuel burned and the maximum representative total sulfur content of fuel gas as measured in Conditions 14.1 and/or 35.

b. Report the monthly and the consecutive 12-month summation of NO_X, CO, PM, and SO_2 emissions for EU IDs 4 – 8 for each month of the reporting period with each operating report required by Condition 76.

c. Notify the Department under Condition 75 when the consecutive 12-month summation of emissions of any air pollutant for a given turbine exceeds the annual emission limit for that pollutant in Table C.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

21. Heater BACT Limits, EU IDs 9 – 11. The Permittee shall limit actual emissions from EU IDs 9 – 11 as indicated in Table D below.

Table D – Heater BACT Limits

Pollutant	EU ID	Make/Model	Tag Number	Emission Limit (short-term) per Individual Unit	Annual Emission Limit per Individual Heater (TPY)
NO_X	9 – 11	CG/200800	B-02-7000 B-02-7001 B-02-7002	0.14 lb/MMBtu	21
CO	9 – 11	CG/200800	B-02-7000 B-02-7001 B-02-7002	0.035 lb/MMBtu	5.1
PM	9 – 11	CG/200800	B-02-7000 B-02-7001 B-02-7002	0.011 lb/MMBtu	1.6
Opacity	9 – 11	CG/200800	B-02-7000 B-02-7001 B-02-7002	5%, consecutive 6-minute average	No BACT Limit

21.1 To ensure compliance with the heater short-term emission limits:

a. For EU IDs 9 – 11, monitor, record, and report as follows to ensure compliance with the short-term BACT NO_X, CO, PM and Opacity emission limits in Table D:

(i) Within 12 months of the effective date of this permit and within every five years thereafter, conduct NO_X, CO, and PM emission source tests in accordance with Section 6; and to develop current emission factors for Section 13. The tests shall be conducted at no less than four loads representative of each heater's typical operating range unless that typical operating range is less than 10 percent of the rated capacity. In that instance, test at the highest typical operating load of the unit. Provide within the source test report NO_X, CO, and PM emissions in lb/MMBtu and lb/hour for each load.

(ii) For each emissions source test, develop fuel specific emission factors using the higher heat value of the fuel for use in Section 13. For units of the same make, model, and configuration, one unit within the group can be tested.

b. For EU IDs 9 – 11, conduct annual visible emission observations, the first to be completed within 12 months of the effective date of this permit to demonstrate compliance with the short-term heater BACT opacity limit in Table D. The observations shall be conducted as specified by 40 C.F.R. 60, Appendix A-4, Method 9, adopted by reference in 18 AAC 50.040(a), for 18 minutes to obtain 72 consecutive 15-second opacity observations.

(i) Conduct subsequent visible emission observations within twelve months after the preceding observation.

(ii) Record and report as required under Conditions 3.1 and 4.1 except report results compared to the 5 percent opacity limit, instead of 20 percent opacity, under Condition 4.1b(iii).

c. Report in accordance with Condition 75 should emissions of any air pollutant exceed the short-term emission limit for that pollutant in Table D.

21.2 To ensure compliance with the heater annual emission limits:

a. Calculate and record the monthly and the consecutive 12-month summations of emissions of NO_X, CO, and PM for EU IDs 9 – 11 to ensure compliance with the annual emission limits in Table D. Use the emission factors found in Section 13 of this permit, along with the hours of operation and/or amount of fuel used as determined in Conditions 18 and/or 19 to calculate the monthly emission rates for each unit.

b. Report the monthly and the consecutive 12-month summations of NO_X, CO, and PM emissions for EU IDs 9 – 11 for each month of the reporting period within each operating report required by Condition 76.

c. Notify the Department under Condition 75 when the consecutive 12-month summation of emissions of any air pollutant exceeds the limit for that pollutant in Table D.

[Operating/Construction Permit No. AQ0183TVP01 Rev. 1, 2/17/04]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Owner Requested Limits

Owner Requested Limit to Establish Potential to Emit

22. EU IDs 33, 34 and 35. The Permittee shall operate and maintain EU IDs 33, 34 and 35 with a closed vent system and control device meeting the specifications of 40 C.F.R. 60.112b(a)(3).

22.1 Operate and maintain the closed vent system and control device for EU IDs 33, 34 and 35 in accordance with the operating plan submitted to the Administrator.

22.2 Keep records for EU IDs 33, 34 and 35 in accordance with 40 C.F.R. 60.115b(c)(1) and (c)(2), and 40 C.F.R. 60.116b(a) and (b). Keep records of total hours during which the skim tank closed vent system vents to atmosphere.

22.3 Report in accordance with Condition 75 any time that the closed vent system is not operated in accordance with 40 C.F.R. 60.112b(a)(3).

22.4 Report in accordance with Condition 75 in the event of a

a. delayed LDAR work order for the closed vent system leak repair;

b. Tank Pressure Alarm indicating tank pressure exceeding 10 inches w.c, or less than minus 2 inches w.c or other Tank Pressure or liquid level alarm indicates tank venting to atmosphere

c. Date of shutdown, startup or malfunction of the closed vent system.

22.5 In the event that skim tank venting to the atmosphere exceeds 40 total hours in any 12 month rolling period, estimate and report the total VOC emissions and HAP emissions in the operating report required by Condition76.

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

Owner Requested Limit to Avoid Minor Permit Requirements

23. EU IDs 37 and 38[9]. The Permittee shall limit the rolling 12-month total NO_X emissions from EU IDs 37 and 38, stationary rig camp internal combustion engines (ICEs) operated at GC#2 Well Pad Z (Z-Pad), to no more than 9.9 tons.

[9] ORL No. AQ0183ORL01 listed placeholders for the actual rig camp ICEs to be operated on Z-Pad as stationary engines because the engines' make and model had not been chosen at that time. During the drafting of this renewal permit, BPXA determined that EU IDs 37 and 38 will be used as stationary emergency drill rig camp engines (i.e., will not meet the "nonroad engine" status). Therefore, upon BPXA request, all other placeholder units listed in ORL No. AQ0183ORL01 are not listed in this permit.

23.1 Monitor and record as follows:

a. Monitor and record monthly fuel usage for each stationary rig camp ICE, EU IDs 37 and 38, operated on the Z-Pad during the month in a log dedicated to the rig camp ICE;

b. At the end of each month:

(i) Calculate and record monthly NO_X emissions from all stationary rig camp ICE operated at the Z-Pad during the month using the following equation:

NO_X tons/ month = $(\Sigma\ (i=1, n)\ \{(\text{Fuel Usage})_i \times (EF)_i\}) \div 2000$ lb/ton

Where:

i = identification for each stationary ICE operated on the Z-Pad in the month;
n = Number of stationary rig camp ICEs operated on the Z-Pad during the month;
Fuel Usage_i = Fuel Usage for rig camp ICE_i operated on the Z-Pad during the month
EF_i = Emission Factor for rig camp ICE_i given in Table E.

Table E – Emission Factors for Rig Camp ICEs

EU ID	Description	Emission Factors (pounds per gallon of Diesel)
37	Existing Camp Diesel-fired Engine CAT D379B PC	0.54
38	Existing Camp Diesel-fired Engine CAT D379B PC	0.54

(ii) Calculate and record the rolling 12-month total of tons of NO_X emitted from EU IDs 37 and 38 operated at the Z-Pad by summing up the emissions calculated and recorded in Condition 23.1b(i) for the previous 12 consecutive months;

(iii) Retain records of NO_X emissions and associated supporting data used to estimate the emissions for EU IDs 37 and 38 operated at the Z-Pad for the period stipulated in Condition 71.

23.2 The Permittee shall report, as follows:

a. Report in the operating report described in Condition 76, the 12-month rolling NO_X emissions for each month of the reporting period.

b. Report as excess emissions under Condition 75, whenever the 12-month rolling NO_X emissions exceed the limit in Condition 23.

[ORL No. AQ0183ORL01, 4/08/11]
[18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Insignificant Emission Units

24. For EU IDs 18 – 22[10], and other emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

[18 AAC 50.055(a)(1)]

24.2 **PM Standard**: The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1)]

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

[18 AAC 50.055(c)]

24.4 General MR&R for Insignificant Emission Units

a. The Permittee shall submit the certification of compliance of Condition 77 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 58;

c. The Permittee shall report in the operating report required by Condition 76 if an emission unit is insignificant because of historical actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions become greater than any of those thresholds; and

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

[18 AAC 50.346(b)(4)]

[10] EU IDs 18 – 22 do not qualify as insignificant units per 18 AAC 50.326(d)(1) because the units are subject to operational limits and standards established under a Title I permit and NESHAP Subpart ZZZZ, but have potential emissions below the significant emissions thresholds in 18 AAC 50.326(e) based on the 200-hour per unit operational limit required in Condition 16. The Department referenced the general requirements for insignificant emission units to satisfy the State VE and PM MR&R requirements for these units.

Section 4. Federal Requirements

Emission Units Subject to Federal New Source Performance Standards (NSPS), Subpart A

25. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 1, 2, 4 – 8, 24, 33, and 36 any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for 1, 2, 4 – 8, 24, 33, or 36 is inoperative.

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

26. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. Except as provided for in Condition 27, the Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)[11], [12] as described in this condition for EU IDs 1, 2, 4 – 8, and 24. Except as provided for in Condition 35.4, submit the EEMSP reports to EPA semi-annually, postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

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

[40 C.F.R. 60.7(c)(1) and 60.13(h), Subpart A, 7/1/07]

26.2 Specific identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU IDs 1, 2, 4 – 8, and 24; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

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

[11] The federal EEMSP report is not the same as the State excess emission report required by Condition 75.
[12] Periods of excess emissions and monitor downtime for units subject to the NSPS Subpart GG SO_2 limit (EU IDs 1, 2, 4 – 8, and 24) are defined in 40 C.F.R. 60.334(j)(2).

27. 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[13] for each pollutant monitored for EU IDs 1, 2, 4 – 8, and 24. Except as provided for in Condition 35.4 the report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, as follows:

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

27.1 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 only the summary report form **unless** the EEMSP report described in Condition 26 is requested by the Department or EPA; or

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

27.2 If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, then submit a summary report form **and the EEMSP** described in Condition 26.

[40 C.F.R. 60.7(d)(2), Subpart A, 7/1/07]

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

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

29. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1, 2, 4 – 8, 24, 33, and 36 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1, 2, 4 – 8, 24, 33, and 36.

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

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

30. 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 32 through 35, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1, 2, 4 – 8, 24, 33 and 36 would have been in compliance with applicable requirements of 40 C.F.R. 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]

31. 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 32 through 35. 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 ID 36

32. NSPS Subpart Dc Fuel Consumption. For EU ID 36, the Permittee shall record and maintain records of the amount of each fuel combusted during each operating day; or monitor according to an EPA approved custom fuel-monitoring schedule.

32.1 As an alternative to meeting the requirements of Condition 32, the Permittee may elect to record the amount of each fuel combusted during each calendar month.

32.2 Maintain records required for a period of two years following the date of such record.

[18 AAC 50.040(a)(2)(D)]
[40 C.F.R. 60.48c(g)(1 & 2) & (i), Subpart Dc]

Storage Tanks Subject to NSPS Subpart Ka, EU ID 33

33. NSPS Subpart Ka Applicability and Requirements. Subpart Ka applies to petroleum liquids storage vessels that were built or modified after May 18, 1978 and prior to July 23, 1984. EU ID 33 was constructed during this time frame, has a storage capacity greater than 40,000 gallons, and stores petroleum liquids.

33.1 The Permittee shall maintain and operate EU ID 33 with a vapor recovery system meeting the specifications of 40 C.F.R. 60.112a(a)(3) and in accordance with the Operations and Maintenance Plan developed in compliance with 40 C.F.R. 60.113a(a)(2)(iii).

[18 AAC 50.040(a)(2)(L)]
[40 C.F.R. 60.110a & 60.112a(a)(3), Subpart Ka]

Turbines Subject to NSPS Subpart GG, EU IDs 1, 2, 4 – 8, and 24[14, 15][16]

34. NSPS Subpart GG NOx Standard. The Permittee shall not allow the exhaust gas concentration of NOx to exceed:

a. **176 ppmvd** at 15 percent O_2, ISO corrected, from EU IDs 1 and 2; and

b. **169 ppmvd** at 15 percent O_2, ISO corrected, from EU ID 5.

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

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

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

a. **Periodic Testing.** For each turbine subject to Conditions 17, 20, and/or 34, that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Conditions 34.1a(i) or 34.1a(ii).

(i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90 percent of the applicable limits shown in Conditions 17, 20, and/or 34, the Permittee shall conduct a NOx and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A:

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

(B) Within 1 year after exceeding 400 hours of operation in a 12-month period if the last source test occurred greater than 4 years prior to the trigger event at any time during the permit term.

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90 percent of the applicable limits shown in Conditions 17, 20, and/or 34, the Permittee shall conduct a NOx and O_2 source test under 40 C.F.R. 60, Appendix A-7, Method 20, or Method 7E and either Method 3 or 3A annually until two consecutive tests show performance results certified at less than or equal to 90 percent of the applicable limits of Conditions 17, 20, and/or 34.

[14] EU IDs 4 and 6 – 8 are exempt from NSPS Subpart GG NOx requirements per 40 C.F.R. 60.332(e). [40 C.F.R. 60.332(e): Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 million Btu/hour) but less than or equal to 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired and that have commenced construction **prior to October 3, 1982** are exempt from paragraph (a) of this section.]

[15] EU ID 3, W-Pad Solar Mars unit was removed from service as certified in the 2008 renewal application.

[16] EU ID 24 is an emergency gas turbine exempt from NSPS Subpart GG NOx requirements per 40 C.F.R. 60.332(g). [40 C.F.R. 60.332(g): Emergency gas turbines, military gas turbines for use in other than a garrison facility, military gas turbines installed for use as military training facilities, and fire fighting gas turbines are exempt from §60.332(a) (Subpart GG NOx standard).]

b. **Substituting Test Data.** The Permittee may use a Method 20, or Method 7E and either Method 3 or 3A test under Conditions 34.1a performed on only one of a group of similarly configured turbines to satisfy the requirements of those conditions for the other turbines in the group if

(i) The Permittee demonstrates that test results are less than or equal to 90 percent of the applicable emission limits of Conditions 17, 20, and/or 34, and are projected under Condition 34.1c to be less than or equal to 90 percent of the applicable limits at maximum load;

(ii) For any source test done after the effective date of this permit, the Permittee identifies in a source test plan under Condition 67

(A) the turbine to be tested;

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

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

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

(2) operates under close to identical ambient conditions as the untested turbines;

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

(4) uses the same fuel type from the same supply origin.

(iii) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90 percent of the applicable emission limits of Conditions 17, 20, and/or 34.

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

(i) Conduct all tests under Condition 34.1 in accordance with 40 C.F.R. 60.335(b)(2), except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

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

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

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

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

(2) a demonstration based on the additional test information that projects the test results from Condition 34.1 to predict the highest load at which emissions will comply with the applicable limits in Conditions 17, 20, and/or 34;

(B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed any of the applicable emission limits of Conditions 17, 20, and/or 34;

(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 34.1c(iii)(A); the new limit is subject to any new Department finding under Condition 34.1c(iii)(C).

(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 34.1c(iii).

(v) For the purposes of Conditions 34.1 through 34.3, maximum load means the hourly average load that is the smallest of

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

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

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

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

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

a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 34.1c(iii) does not show compliance with any of the applicable emission limits of Conditions 17, 20, and/or 34 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 34.2a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 34.1c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 34.1c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Conditions 17, 20, and/or 34that will operate less than 400 hours in any 12 consecutive months, the Permittee shall keep monthly records of the hours of operation.

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

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

a. In each operating report under Condition 76, 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 34.1c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 34.2a during the period covered by the operating report.

b. In each operating report under Condition 76 for each turbine for which Condition 34.1 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify

(i) the turbine;

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

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

c. The Permittee shall report under Condition 75 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 34.1a(i) or 34.1a(ii) but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 34.1c(iii)(B) and 34.1c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

35. NSPS Subpart GG Sulfur Standard. The Permittee shall not allow the sulfur content for the fuel burned in EU IDs 1, 2, 4 – 8, and 24 to exceed 0.8 percent by weight.

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

35.1 **Monitoring.** The Permittee shall monitor compliance with the standard listed in this condition as follows:

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

a. Monitor the total sulfur content of the fuel being fired in the turbine, except as provided in Conditions 35.1b and 35.1c. The sulfur content of the fuel must be determined using total sulfur methods described in Conditions 35.2a or 35.2b. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4,000 ppmw), ASTM D4084–82, 94, D5504–01, D6228–98, or Gas Processors Association Standard 2377–86, which measure the major sulfur compounds may be used.

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

b. Notwithstanding the provisions of Conditions 35.1a and 35.1c, and upon submittal of a certified statement to the Department that, pursuant to 40 C.F.R. 60.334(h)(3), the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. 60.331(u)[17], the Permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine regardless of whether an existing custom schedule approved by the Administrator requires such monitoring. The Permittee shall use one of the following sources of information to make the required demonstration:

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

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

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

c. For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the Permittee may, without submitting a special petition to the Administrator, continue monitoring on this schedule. The EPA-approved Custom Fuel Monitoring Schedule (5/8/96 and 8/19/96) and Alternate H_2S Sampling Method (10/2/97) allow the Permittee to determine the fuel sulfur content of the fuel gas at least monthly using ASTM D 4810-88, ASTM D 4913-89, or Gas Producer's Association (GPA) Method 2377-86.

[40 C.F.R. 60.334(h)(4), Subpart GG]
[Alternative Monitoring Plan, 10/2/97]
[Custom Fuel Monitoring Schedules, 5/8/96 and 8/19/96]

[17] 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.

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

(i) **Fuel oil**. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in Sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 C.F.R. 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.

(ii) **Gaseous fuel**. If the Permittee elects not to demonstrate sulfur content using options in Condition 35.1b, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined under Condition 35.1a and recorded once per unit operating day.

(iii) **Custom schedules**. Notwithstanding the requirements of Condition 35.1d(i), the Permittee may develop a custom schedule for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply, according to the provisions and as allowed under 40 C.F.R. 60.334(i)(3). The two custom sulfur monitoring schedules set forth in 40 C.F.R. 60.334(i)(3)(i)(A) through (D) and 60.334(i)(3)(ii) are acceptable without prior Administrative approval.

[40 C.F.R. 60.334(i), Subpart GG]
[Alternative Monitoring Plan, 10/2/97]
[Custom Fuel Monitoring Schedule, 5/8/96 & 8/19/96]

35.2 **Test Methods and Procedures.** If the Permittee periodically determines the sulfur content of the fuel combusted in the turbine under Condition 35.1a, 35.1d(i), or 35.1d(ii), 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)(10), Subpart GG]

a. For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see 40 C.F.R. 60.17).

b. 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)(ii), Subpart GG]

c. The fuel analyses required under Conditions 35.1 and 35.2 may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

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

35.3 **Recordkeeping.** Keep records of the analyses conducted under Conditions 35.1 and 35.2.

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

35.4 **Reporting.** The Permittee shall

a. For each affected unit for which the Permittee periodically determines the fuel sulfur content under Conditions 35.1a, 35.1c, or 35.1d,

(i) Report the results of all liquid fuel sulfur monitoring to EPA and send a copy to the Department by the 30th day following the end of each 6-month period as required under 40 C.F.R. 60.334(j)(5) and 40 C.F.R. 60.7(c), or at a different frequency in accordance with a custom fuel monitoring schedule for liquid fuel approved by the EPA.

(ii) Annually report the results of all gaseous fuel sulfur monitoring to EPA and send a copy to the Department by the 30th day following the end of each 12-month period; and

[Custom Fuel Monitoring Schedule, 5/8/96 & 8/19/96]

(iii) Include with the report submitted under Conditions 35.4a(i) and 35.4a(ii) a report of excess emissions and monitoring system downtime in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 26 and as defined under 40 C.F.R. 60.334(j)(2). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction.

(iv) If periodic gaseous fuel sulfur monitoring is not required to be conducted because the demonstration under Condition 35.1b has been made, gaseous fuel reporting under Conditions 26, 27, and this Condition 35.4 is not required. (Liquid fuel sulfur reporting does not include this same exclusion.)

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

b. Include a copy of the records required by Condition 35.3 with the operating report required by Condition 76 for the period covered by the report; and

c. Report under Condition 75 if

(i) a test result exceeds the limit in Condition 35;

(ii) monitoring is required under Condition 35.1 but not performed; or

(iii) any reporting required under Condition 35.4 is not completed.

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

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

36. NESHAPs Subpart A and ZZZZ Requirements. Beginning no later than May 3, 2013, 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.

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

Stationary Reciprocating Internal Combustion Engines (RICE) Subject to NESHAPs Subpart ZZZZ, EU IDs 18 – 23, 37, and 38

37. NESHAPs Subpart ZZZZ Work Practice Standards and General Maintenance Requirements. For EU IDs 18 – 23, 37, and 38 listed in Table A, the Permittee shall comply with the following requirements no later than May 3, 2013.

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6590(a)(1)(iii), Subpart ZZZZ]

37.1 At all times operate and maintain EU IDs 18 – 23, 37, and 38, 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 18 – 23, 37, and 38. The Permittee shall comply with either:

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

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

[40 C.F.R. 63.6605(b), 63.6625(e)(3), and Table 6 item 9, Subpart ZZZZ]

37.2 For EU IDs 18 – 23, 37, and 38, minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

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

38. NESHAP Subpart ZZZZ Management Practice Standards. For EU IDs 18 – 23, 37, and 38 (existing emergency stationary CI RICE) located at an area source of HAP emissions listed in Table A, the Permittee shall comply with the following management practice standards no later than May 3, 2013.

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

38.1 For EU IDs 18 – 23, 37, and 38, except as allowed by Condition 38.2,

a. Change oil and filter every 500 hours of operation or annually, whichever comes first[18].

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

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

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

38.2 If any of EU IDs 18 – 23, 37, and 38 is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required under Condition 38.1, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice required by Condition 38.1 should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

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

39. NESHAP Subpart ZZZZ Monitoring. For existing emergency stationary CI RICE, EU IDs 18 – 23, 37, and 38, the Permittee shall comply with the following no later than May 3, 2013:

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

39.1 Install a non-resettable hour meter if one is not already installed. Monitor the operating time of EU IDs 18 – 23, 37, and 38 using a non-resettable hour meter.

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

39.2 To be classified as an emergency stationary engine, EU IDs 18 – 23, 37, and 38 must be operated according to the requirements of the sub-conditions described below:

[18] The Permittee has the option to utilize an oil analysis program as described in 40 C.F.R. 63.6625(i) in order to extend the specified oil change requirement in Condition 38.1a. [ref. Table 2d, Footnote 1 and 40 C.F.R. 63.6625(i)]

a. Any operation of EU IDs 18 – 23, 37, and 38 other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per calendar year, as described in Condition 39.2c, and operation in non-emergency situations for 50 hours per calendar year, as described in Condition 39.2d, is prohibited is prohibited. If the engine is not operated according to the requirements in Conditions 39.2b through 39.2d, the engine will not be considered an emergency engine under this subpart and will need to meet all applicable requirements for non-emergency engines.

b. There is no time limit on the use of emergency stationary RICE in emergency situations.

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

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

[40 C.F.R. 63.6640(f)(1), Subpart ZZZZ]

40. NESHAP Subpart ZZZZ Recordkeeping. For each of EU IDs 18 – 23, 37, and 38, beginning May 3, 2013, the Permittee shall keep the following records:

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

40.1 Records of the maintenance conducted on each engine in order to demonstrate that the units and after-treatment control device (if any) are operated and maintained according to the Permittee's own maintenance plan, if maintenance is performed as allowed under Condition 37.1b. These records must include at a minimum: oil and filter change dates and corresponding hour on the hour meter; inspection and replacement dates for air cleaners, hoses, and belts; and records of other emission-related repairs and maintenance performed; and

[40 C.F.R. 63.6655(e)(2) , Subpart ZZZZ]

40.2 Records of hours of operation of each of EU IDs 19 – 20, 23, 37, and 38 including:

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

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

[40 C.F.R. 63.6655(f)(2), Subpart ZZZZ]

40.3 Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form, and for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. 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, and Table 8, Subpart ZZZZ]
[40 C.F.R. 63.10(b)(1), Subpart A]

41. NESHAP Subpart ZZZZ Reporting. For EU IDs 18 – 23, 37, and 38, no later than May 3, 2013, the Permittee shall:

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

41.1 Report under Condition 76 any failure to perform the management practice on the schedule required in Condition 38.1. Include in the report the emergency and/or the Federal, State or local law under which the risk of performing the management practice on the required schedule was deemed unacceptable (see Condition 38.2).

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

41.2 Include in the operating report required by Condition 76 a report of Subpart ZZZZ deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 of Subpart ZZZZ) was not met; and

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

41.3 Notify the Department in accordance with Condition 75 if any of the requirements in Conditions 36 through 41 were not met.

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

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

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

43. Refrigerant Recycling and Disposal. The Permittee shall comply with the applicable standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F. Applicable requirements include 40 CFR 82.154, 82.156, 82.161, 82.162, and 82.166.

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

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

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

45. NSPS and NESHAP Reports. The Permittee shall:

45.1 **Reports:** Attach to the operating report required by Condition 76, a copy of any NSPS and NESHAPs reports submitted to the EPA-Region 10 during the period covered by the operating report; and

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

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

Halon Prohibitions, 40 C.F.R. 82

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

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

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

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

Section 5. General Conditions

Standard Terms and Conditions

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

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

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

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

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

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

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

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

52. 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 (TPY). The quantity for which fees will be assessed is the lesser of

52.1 the stationary source's assessable potential to emit of 2,906 TPY; or

52.2 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); 18 AAC 50.326(j)(1); 18 AAC 50.035 & 50.346(b)(1);18 AAC 50.410; 18 AAC 50.420]
[40 C.F.R. 71.5(c)(3)(ii)]

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

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

53.2 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 52.1.

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

54. Good Air Pollution Control Practice. Except as noted in Condition 54.4, the Permittee shall do the following for EU IDs 9 – 23, 25 – 32, 34, 35, 37, and 38:

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

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

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

54.4 EU IDs 18 – 23, 37, and 38 are subject to this condition only until the compliance date as set forth in Condition 37.

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

55. 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)]

56. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air. Monitoring shall consist of an annual certification that reasonable precautions were taken.

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

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

[18 AAC 50.055(g)]

58. 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; 18 AAC 50.040(e); 18 AAC 50.326(j)(3); 18 AAC 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

58.1 If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 75.

58.2 As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 58.

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

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 58; or

b. the Department notifies the Permittee that it has found a violation of Condition 58.

58.4 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 58; and

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

58.5 With each operating report required under Condition 76 and for the period covered by the report, the Permittee shall include a brief summary report which must include:

a. the number of complaints received;

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

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

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

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

59. 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[19] listed in Conditions 20, 21, 34, or 35, the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 75 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 75.

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

Open Burning

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

60.1 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.

60.2 Compliance with this condition shall be an annual certification conducted under Condition 77.

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

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

Section 6. General Source Testing and Monitoring Requirements

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

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

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

[18 AAC 50.220(b)]

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

62.2 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.

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

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

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

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

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

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

[18 AAC 50.030; 18 AAC 50.220(c)(1)(D),

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

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

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

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

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

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

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

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

65. Test Exemption. The Permittee is not required to comply with Conditions 67, 68 and 69 when the exhaust is observed for visible emissions using the Method 9 Plan (Condition 2.1).

[18 AAC 50.345(a)]

66. 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)]

67. Test Plans. Except as provided in Condition 65, 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 61 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)]

68. Test Notification. Except as provided in Condition 65, 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)]

69. Test Reports. Except as provided in Condition 65, 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 72. 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)]

70. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 24.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

71. Recordkeeping Requirements. The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.040(a)(1); 18 AAC 50.326(j)]
[40 C.F.R 60.7(f), Subpart A; 40 C.F.R. 71.6(a)(3)(ii)(B)]

71.1 copies of all reports and certifications submitted pursuant to this section of the permit; and

71.2 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

72. 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.

72.1 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 72.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

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

73. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original and one copy of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, source test reports, or other records under a cover letter certified in accordance with Condition 72.

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

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

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

75. Excess Emissions and Permit Deviation Reports.

75.1 Except as provided in Condition 58, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

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

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

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

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

c. report all other excess emissions and permit deviations

(i) within 30 days after the end of the month during which the excess emissions or deviation occurred, except as provided in Conditions 75.1c(iii) and 75.1c(iv);

(ii) for a permit deviation not classified as also resulting in excess emissions under Condition 75.1a, then report the earlier of:

(A) within 30 days of the end of the month in which the deviation is discovered; or

(B) no later than the date required by the next Annual Compliance Certification, Condition 77 after the event occurred; or

(iii) 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 75.1c(i); or

(iv) according to the required deadline for failure to monitor, as specified in Conditions 4.2b and 9.1b.

75.2 When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or https://myalaska.state.ak.us/dec/air/airtoolsweb/, or if the Permittee prefers, the form contained in Section 14 of this permit. The Permittee shall provide all information called for by the form that is used.

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

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

76. Operating Reports. During the life of this permit[20], the Permittee shall submit to the Department an original and one copy of an operating report by May 15 for the period January 1 to March 31, by August 15 for the period April 1 to June 30, by November 15 for the period July 1 to September 30, and by February 15 for the period October 1 to December 31 of the previous year.

[18 AAC 50.346(b)(6), 11/9/08; 18 AAC 50.326(j), 12/1/04]
[40 C.F.R. 71.6(a)(3)(iii)(A), 7/2/07]

76.1 The operating report shall include for the period covered by the report all information required to be in operating reports by other conditions of this permit.

76.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 76.1, the Permittee shall identify

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

76.3 When excess emissions or permit deviations have already been reported under Condition 75, the Permittee shall cite the date or dates of those reports.

[20] *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.

76.4 The operating report shall include for the period covered by the report a listing of emissions monitored under Conditions 2.1e, 7.2, and 34.1a, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report:

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

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

77. 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[21].

77.1 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.

77.2 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.

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

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

[21] See Condition 77.2 for clarification on the number of reports required.

78. 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 15 of this permit, as follows:

78.1 Every third year by March 31, since the stationary source's potential to emit emissions for the previous calendar year exceed 100 TPY of SO_2 and NOx.

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

78.2 Include in the report required by this condition, the required data elements contained within the form in Section 15 or those contained in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 (final rule published in 73 FR 76556 (December 17, 2008)) for each stack associated with an emission unit.

[18 AAC 50.346(b)(8) and18 AAC 50.200]
[40 C.F.R. 51.15, 51.30(a)(1) & (b)(1) and 40 C.F.R. 51, Appendix A to Subpart A, 73 FR 76556 (12/17/08)]

Section 8. Permit Changes and Renewal

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

79.1 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[22];

79.2 The information shall be submitted to the same address as in Condition 77.3;

79.3 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

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

[18 AAC 50.040(j)(7); 18 AAC 50.326(b); 18 AAC 346(b)(7)]
[40 C.F.R. 71.10(d)(1)]

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

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

81. 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:

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

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

81.2 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;

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

81.4 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.

[22] The documents required in Condition 79.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek Avenue, Suite 249, Anchorage, AK 99501.

82. 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):

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

82.2 For each such change, the written notification required by Condition 82.1 shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

82.3 The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 82.

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

83. 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 source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 C.F.R. 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3); 18 AAC 50.326(c)(2) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii), 71.7(b) & (c)(1)(ii)]

Section 9. Compliance Requirements

General Compliance Requirements

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

84.1 included and specifically identified in the permit; or

84.2 determined in writing in the permit to be inapplicable.

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

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

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

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

a. an enforcement action;

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

c. denial of an operating permit renewal application.

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

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

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

87. 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

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

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

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

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

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

88. 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 Gathering Center #2 (GC#2).

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

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

89.2 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)]

90. 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 become 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, and apply for a construction permit and/or an operating permit revision, as necessary.

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

Table F – Permit Shields Granted

Non Applicable Requirements	Reason for Non-Applicability
Gas-Fired Turbines (EU IDs 1, 2, & 5)	
40 C.F.R. 60 Subpart A – General Provisions	
§60.8(a) – Performance Test (Initial Performance Test Only)	Initial Performance Tests and Notification Requirements for NSPS Subpart GG only.
§60.7(a)(1) & (3) – Notification and Recordkeeping. (Initial Notification Only)	Obsolete requirements. Completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
40 C.F.R. 60 Subpart GG §60.332(a)(1) – Standards for NOx	Standard applies to Electric Utility Stationary Gas Turbines as defined in subpart. These units are not Electric Utility Stationary Gas Turbines as defined in Subpart GG.
§60.334(a), (b), (d) – Monitoring of Operations §60.335(b)(4) – Test Methods and Procedures	Applies only to affected turbines equipped with water injection to control emissions of NOx. These units are not equipped with water injection to control emissions of NOx.
§60.334(e), (f) – Monitoring of Operations	Applies only to affected turbines that commenced construction after July 8, 2004. Emission units commenced construction prior to this date.
§60.334(g) – Monitoring of Operations	Applies only to affected turbines subject to the continuous monitoring requirements of 60.334(a), (d), or (f).
§60.334(h) (2) – Monitoring of Operations (Fuel Nitrogen Only)	BPXA has not claimed an allowance for fuel bound nitrogen to calculate the applicable NOx emission limit under §60.332.

Non Applicable Requirements	Reason for Non-Applicability
Gas-Fired Turbines (EU IDs 4, & 6 – 8)	
40 C.F.R. 60 Subpart A – General Provisions §60.8(a) – Performance Test 40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines §60.332(a) – Standards for NOx	Stationary gas turbines with a heat input at peak load equal to or greater 10 MMBtu/hr but less than or equal to 100 MMBtu/hr based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from §60.332(a) [§60.332(e)].
Liquid-Fired Emergency Turbine (EU ID 24)	
40 C.F.R. 60 Subpart A – General Provisions §60.8(a) – Performance Test	Emergency gas turbines as defined in subpart are exempt from §60.332(a) standard for nitrogen oxides [ref §60.332(g)].
§60.7(a)(1) & (3) – Notification and Recordkeeping. (Initial Notification Only)	Obsolete requirements. Completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines §60.332(a) – Standards for NOx	Emergency gas turbines as defined in subpart are exempt from §60.332(a) standard for nitrogen oxides [ref §60.332(g)].
Gas-Fired Turbine (EU ID 3)	
All Potential Requirements	Equipment is no longer in service.
All Combustion Turbines (EU IDs 1, 2, 4 – 8, & 24)	
40 C.F.R. 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines	Construction, modification, or reconstruction of each turbine commenced prior to the applicability date of February 18, 2005. This shield applies for units as currently installed until modified, reconstructed or replaced.
40 C.F.R. 63 Subpart YYYY – National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	GC#2 is not a major source of HAPs and turbines located on the North Slope of Alaska are categorically exempt from this rule, per §63.6090(b)(ii).
Gas-Fired Heaters (EU IDs 9 – 17 & 36)	
40 C.F.R. 60 Subpart D – Standards of Performance for Fossil Fuel-Fired Steam Generators	Heat input capacities are below threshold (250 MMBtu/hr); and units are not classified as Fossil Fuel Fired Steam Generators, as defined in subpart.
40 C.F.R. 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units	Heat input capacities are below threshold (250 MMBtu/hr); and units are not classified as Electric Utility Steam Generating Units, as defined in subpart.
40 C.F.R. 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities are below threshold (100 MMBtu/hr).

Non Applicable Requirements	Reason for Non-Applicability
Gas-Fired Heaters (EU IDs 9 – 15)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to effective date of subpart (6/9/89). This shield applies only until an existing facility is replaced, reconstructed or modified.
Gas-Fired Heaters (EU IDs 15 – 17)	
40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities are below threshold (10 MMBtu/hr), and commenced construction prior to effective date of subpart. Units also do not meet the definition of a steam generating unit [ref §60.41c].
Gas-Fired Heater (EU ID 36)	
40 C.F.R. 60 Subpart A – General Provisions §60.7(a)(1) & (3) – Notification and Recordkeeping (Initial notification only)	Obsolete requirements - completed as required.
§60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
§60.7(c) & (d) – Excess Emissions Reporting §60.8 – Performance Test	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 or as required under specific NSPS subparts for periodic monitoring. The affected fuel gas fired heater is not required by Subpart Dc to install a CMS or monitoring device nor are there any applicable emission limits for the fuel gas fired heater to which "excess emissions" could apply. Standards for SO_2 and PM and related performance test, monitoring, and reporting requirements are not applicable for affected emission unit fired on fuel gas.
40 C.F.R. 60 Subpart Dc §60.42c – Standard for Sulfur Dioxide (SO_2) §60.43c – Standard for Particulate Matter (PM) §60.44c – Compliance and Performance Test Methods and Procedures for SO_2 §60.45c – Compliance and Performance Test Methods and Procedures for PM §60.46c – Emission Monitoring for SO_2 §60.47c – Emission Monitoring for PM §60.48c(a)(4)-(f) & (h) – Reporting and Recordkeeping Requirements	Standards for SO_2 and PM and related performance test, monitoring, and reporting requirements are not applicable for affected emission unit fired on fuel gas only.
§60.48c(a)(1) – Notifications §60.48c(a)(2), (3) – Reporting and Recordkeeping Requirements	Obsolete requirements - completed as required. Emission unit is not subject to any requirements that limit the annual capacity factor for any fuel or mixture of fuels. Emission unit fires only fuel gas.

Non Applicable Requirements	Reason for Non-Applicability
All Gas-Fired Heaters (EU IDs 9 – 17 & 36)	
40 C.F.R. 60 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial-Commercial-Institutional Boilers and Process Heaters	GC#2 is not a major source of HAPs. Also, the State of Alaska has repealed its adoption of Subpart DDDDD under 18 AAC 50.040(c).
All Reciprocating IC Engines (EU IDs 18 – 23, 37, and 38)	
40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Construction, modification, or reconstruction of each IC engine commenced prior to the applicability date of July 11, 2005. Permit shield is no longer applicable upon modification, reconstruction or replacement.
All Existing Emergency Stationary RICE Units located at an Area Source Subject to NESHAP Subpart ZZZZ (EU IDs 18 – 23, 37, and 38)	
40 C.F.R. 63.6600, 40 C.F.R. 63.6601, and 40 C.F.R. 63.6602, Subpart ZZZZ - Emission Limitations	The stationary source is not a major source of HAP emissions.
40 C.F.R. 63, Subpart ZZZZ, Table 2b – Operating Limitations	There are no requirements in Table 2b of Subpart ZZZZ that apply to these engines because they are emergency engines. [23]
40 C.F.R. 63.6610 and 40 C.F.R. 63.6611, Subpart ZZZZ – Testing and Initial Compliance Requirements	The stationary source is not a major source of HAP emissions.
40 C.F.R. 63.6604, Subpart ZZZZ - Fuel Requirements	The requirement to comply with 40 C.F.R. 80.510(b) does not apply to existing emergency engines[24].
40 C.F.R. 63.6605(a), Subpart ZZZZ – General Compliance Requirements	Existing emergency engines are not subject to any emissions limitations or operating limitations under Subpart ZZZZ. Footnote 24 applies.
40 C.F.R. 63.6612, Subpart ZZZZ – Testing and Initial Compliance Requirements	There are no requirements in either Table 4 or Table 5 of Subpart ZZZZ that apply to these existing emergency engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. Footnote 24 applies.
40 C.F.R. 63.6615, Subpart ZZZZ – Subsequent Testing 40 C.F.R. 63.6620, Subpart ZZZZ – Performance Tests and Procedures	There are no performance testing requirements that apply to these existing emergency engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. Footnote 24 applies.
40 C.F.R. 63.6625(g), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	This requirement does not apply to the emergency engines. This shield applies only for as long as the engine(s) meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). Footnote 24 applies.
40 C.F.R. 63.6630, Subpart ZZZZ – Initial Compliance Demonstration	There are no performance testing requirements that apply to these existing emergency engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ. Footnote 24 applies.

[23] For emergency engines with ratings > 500 Hp, EU IDs 18 – 20, 23, 37, and 38, this shield applies only for as long as the engine(s) meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when/if EU ID(s) 18 – 20, 23, 37, and 38 no longer qualify as "emergency" and thus, would be subject to the applicable provisions for "non-emergency" as provided in NESHAP Subpart ZZZZ.

[24] For emergency engines with ratings >300 Hp, EU IDs 18 – 20, 23, 37, and 38, this shield applies only for as long as the engine(s) meet the definition of "emergency RICE" in 40 C.F.R. 63.6675" and the requirements in 40 C.F.R. 63.6640(f)(1). This shield does not apply when/if EU ID(s) 18 – 20, 23, 37, and 38 no longer qualify as "emergency" and thus, would be subject to the applicable provisions for "non-emergency" as provided in NESHAP Subpart ZZZZ.

Non Applicable Requirements	Reason for Non-Applicability
40 C.F.R 63.6635, Monitoring to Demonstrate Continuous Compliance	These requirements apply only to CI RICE subject to emissions or operational limits. There are no emissions or operational limits that apply to these engines. Footnote 24 applies.
40 C.F.R. 63.6645, Subpart ZZZZ - Notification Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Per 40 C.F.R. 63.6645(a)(5), initial notification is not required for existing stationary emergency CI RICE. Footnote 24 applies.
40 C.F.R. 63.6640(b) and §60.6650, Subpart ZZZZ – Reporting Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Compliance status reporting requirements only apply to CI RICE subject to numerical emissions or operational limits. There are no emissions or operational limits that apply to these existing emergency engines. Footnote 24 applies.
40 C.F.R. 63.6655(a) – (d), Subpart ZZZZ - Recordkeeping Requirements	There are no emissions or operational limits that apply and/or there are no applicable requirements in Table 6 of Subpart ZZZZ for these existing emergency engines. Footnote 24 applies.
40 C.F.R. 63.5, Subpart A – Construction and Reconstruction	The preconstruction review requirements in this section apply to new affected sources and reconstructed affected sources that are major-emitting. Stationary source is an area source of HAP emissions and these engines are existing engines.
40 C.F.R. 63.7, Subpart A – Performance Testing Requirements	There are no performance testing requirements apply to these emergency engines. Footnote 24 applies.
40 C.F.R. 63.8, Subpart A – Monitoring	Per 40 C.F.R. 63.6645(a)(5), these engines are not subject to the requirements of §63.8(e), (f)(4) and (f)(6). Footnote 24 applies.
All Nonroad Engines	
18 AAC 50.055(a)(1) – Fuel-Burning Equipment Emission Standards: Visible Emissions 18 AAC 50.055(b)(1) – Fuel-Burning Equipment Emissions Standards: Particulate Matter 18 AAC 50.055(c) – Fuel-Burning Equipment Emissions Standards: Sulfur Compound Emissions	Nonroad (mobile) internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).
Flares (EU IDs 25 – 32)	
40 C.F.R. 60 Subpart A – General Provisions §60.18 – General Control Device Requirements	These flares are not control devices used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61.

Non Applicable Requirements	Reason for Non-Applicability
Storage Tanks T-02-0001, T-02-0003, T-02-0004, T-02-0006, T-02-0008, T-02-0009, T-02-0010, T-02-0022, T-02-0057, T-02-7000, T-02-7004, T-02-7500, T-02-7702, T-02-8001, T-02-8507, & VOS-02-0063	
40 C.F.R. 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below threshold (40,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or storage prior to custody transfer; and/or commenced construction before effective date (6/11/73); and/or commenced construction after effective date (5/19/78), depending upon tank.
40 C.F.R. 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel not storing a petroleum liquid, as defined in subpart; and/or vessel storage capacity below thresholds (40,000/420,000 gallons); and/or vapor pressure of stored liquid below thresholds; and/or petroleum or condensate storage prior to custody transfer; and/or commenced construction prior to or after effective dates (5/18/78 to 7/23/84), depending upon tank.
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Vessel not storing a volatile organic liquid or a petroleum liquid, as defined in subpart; and/or vessel storage capacity below thresholds; and/or vapor pressure of stored liquid below thresholds; and/or storage prior to custody transfer; and/or commenced construction prior to effective date (7/23/84), depending upon tank. For tank vessels that commenced construction prior to the effective date, the shield for Subpart Kb is effective only until the storage tank is modified, replaced or reconstructed.
Storage Tanks T-02-8511 & T-02-8512 (EU IDs 34 & 35)	
40 C.F.R. 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessels commenced construction after effective date of subpart (5/19/78).
40 C.F.R. 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessels commenced construction after effective date of subpart (7/23/84).
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	In a letter to BPXA dated August 11, 2005, EPA determined that these tanks meet the definition of a process tank in §60.111b (as amended 10/15/03). Therefore, these vessels are exempt from Subpart Kb.
40 CFR 64—Compliance Assurance Monitoring	The CAM rule defines "control device" to include only add-on controls and excludes "inherent process equipment." The closed vent system for each of these tanks is "inherent process equipment" which was installed and is operated primarily for material recovery and safety reasons, not for compliance with air quality regulations.
Storage Tank T-02-7703 (EU ID 33)	
40 C.F.R. 60 Subpart A – General Provisions §60.7(a)(1) & (3) – Notification and Recordkeeping (Initial notification only)	Obsolete requirements - completed as required.
§60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2. This shield pertains only to affected emission unit as applied to Subpart Ka.

Non Applicable Requirements	Reason for Non-Applicability
§60.7(c) & (d) – Notification and Recordkeeping	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; BPXA is not required to install a CMS or monitoring device per Subpart Ka.
§60.8(a)(4) – Performance Tests	There are no performance test requirements for closed vent systems.
§60.18 – General Control Device Requirements	Emission unit is affected by NSPS Subpart Ka. 40 C.F.R. 60.18 only applies to facilities covered by subparts referring to this section [ref. §60.18(a)]; Subpart Ka does not reference §60.18.
40 C.F.R. 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessels commenced construction after effective date of subpart (5/19/78).
40 C.F.R. 60 Subpart Ka §60.113a(a)(2)(iii) – Testing and Procedures §60.115a – Monitoring of Operations	Obsolete requirements – completed as required. BPXA submitted an O&M plan to EPA for tank tag No. T-02-7703 in April 1997. Storage vessel equipped with a vapor recovery return or disposal system in accordance with the requirements of §60.112a(a)(3) is exempt from §60.115a [ref. 60l.115a(d)(2)].
40 C.F.R. 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Vessels commenced construction prior to effective date of subpart (7/23/84). The shield for Subpart Kb is effective only until the storage tank is modified, replaced or reconstructed.
40 CFR 64—Compliance Assurance Monitoring	The CAM rule defines "control device" to include only add-on controls and excludes "inherent process equipment." The closed vent system for each of these tanks is "inherent process equipment" which was installed and is operated primarily for material recovery and safety reasons, not for compliance with air quality regulations.
Stationary Source-Wide	
40 C.F.R. 60 Subpart J – Standards of Performance for Petroleum Refineries 40 C.F.R. 60 Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries 40 C.F.R. 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Stationary source does not meet the definition for a petroleum refinery.
40 C.F.R. 60 Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	Stationary source is not a natural gas processing plant as defined in subpart.
40 C.F.R. 60 Subpart LLL – Standards of Performance for Onshore Natural Gas Processing Plants	Stationary source does not operate natural gas sweetening unit(s).

Non Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 61 Subpart J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in benzene service, as defined by subpart (10 percent benzene by weight).
40 C.F.R. 61 Subpart M – National Emission Standard for Asbestos §61.142 – Standard for Asbestos Mills	Stationary source is not an Asbestos Mill.
§61.143 – Standard for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste.
§61.144 – Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos.
§61.146 – Standard for Spraying	Stationary source does not spray apply asbestos containing materials.
§61.147 – Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos.
§61.148 – Standard for Insulating Materials	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos.
§61.149 – Standard for Waste Disposal for Asbestos Mills	Applies only to stationary sources subject to §61.142 (Asbestos Mills).
§61.151 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those stationary sources subject to §§61.142; 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
§61.152 – Standard for Air-Cleaning	Stationary source does not use air cleaning equipment.
§61.153 – Standard for Reporting	No reporting requirements apply for sources subject to §61.145 (demolition and renovation) [ref §61.153(a)].
§61.154 – Standard for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material.
§61.155 – Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Stationary source does not process regulated asbestos containing material (RACM).
Activities subject to 40 C.F.R. 61 Subpart M – Standard for Demolition and Renovation (§61.145)	
For renovation and demolition activities, 40 C.F.R. 61 Subpart A – General Provisions §61.05(a) – Prohibited Activities §61.07 – Application for Approval of Construction or Modification §61.09 – Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of §61.05(a), 61.07, and 61.09 [ref. 40 C.F.R. 61.145(a)(5)].
§61.10 – Source Reporting and Waiver Request	Demolition and renovation operations exempt from §61.10(a) [ref. 40 C.F.R. 61.153(b)].
§61.13 – Emission Tests §61.14 – Monitoring Requirements	Emission test or monitoring is not required under the standards for demolition and renovation [§61.145].

Non Applicable Requirements	Reason for Non-Applicability
Stationary Source-Wide	
40 C.F.R. 61 Subpart V – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	No process components in volatile hazardous air pollutant (VHAP) service, as defined by subpart (≥10 percent VHAP by weight).
40 C.F.R. 61 Subpart Y – National Emission Standard for Benzene Emissions from Benzene Storage Vessels	Stationary source does not operate storage vessels in benzene service.
40 C.F.R. 61 Subpart BB – National Emission Standard for Benzene emissions from Benzene Transfer Operations	Stationary source does not conduct benzene transfer operations.
40 C.F.R. 61 Subpart FF – National Emission Standard for Benzene Waste Operations	Stationary source does not conduct benzene waste operations.
40 C.F.R. 63 Subpart B – Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j)	Stationary source is not a major source of HAPs.
40 C.F.R. 63 Subpart T – National Emission Standards for Halogenated Solvent Cleaning	Stationary source does not operate halogenated solvent cleaning machines.
40 C.F.R. 63 Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries	Stationary source does not meet the definition for a petroleum refinery.
40 C.F.R. 63 Subpart HH – National Emissions Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities	Stationary source is not a major source of HAPs and black oil exemption applies; stationary source exclusively processes, stores, or transfers “black oil” (defined in the final promulgated rule as a petroleum liquid with an initial produced gas-to-oil ratio [GOR] less than 1,750 scf/bbl and an API gravity less than 40 degrees).
40 C.F.R. 63 Subpart HHH – National Emission Standards for Hazardous Air Pollutants for Natural Gas Transmission and Storage Facilities	Stationary source is not a major source of HAPs.
40 C.F.R. 63 Subpart EEEE – National Emission Standard for Organic Liquid Distribution	Stationary source is not a major source of HAPs.
All Storage Tanks	
40 C.F.R. 63 Subpart OO – National Emission Standards for Tanks – Level 1	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart OO.
40 C.F.R. 63 Subpart SS – National Emission Standards for Closed Vent Systems	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart SS.
Drain Systems	
40 C.F.R. 63 Subpart RR – National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart RR.

Non Applicable Requirements	Reason for Non-Applicability
Oil-Water Separators	
40 C.F.R. 63 Subpart VV – National Emission Standards for Oil-Water Separators and Organic-Water Separators	Provisions only apply to oil-water separators and organic-water separators affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63 Subpart VV.
Stationary Source-Wide	
40 C.F.R. 63 Subpart A – General Provisions [except §63.1(b) and §63.10(b)(3)]	Requirements only apply to sources subject to any provision of 40 C.F.R. 63. This stationary source is not subject to 40 C.F.R. 63 Subpart A, except for the requirement to determine rule applicability (§63.1(b)) and to keep records of rule applicability determination (§63.10(b)(3)).
40 C.F.R. 64 – Compliance Assurance Monitoring (all units except EU IDs 33 – 35)	The CAM rule defines “control device” to include only add-on controls and excludes “inherent process equipment.” The closed vent system for this tank is “inherent process equipment” which was installed and is operated primarily for material recovery and safety reasons, not for compliance with air quality regulations
40 C.F.R. 68 – Risk Management Programs [§112(r)]	"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 exempting from threshold determination regulated flammable substances in naturally occurring hydrocarbon 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, Gathering Center #1, a crude petroleum and natural gas production stationary source, (NAICS code 211111) does not process or store regulated flammable or toxic substances in excess of threshold quantities.
40 C.F.R. 82.1 Subpart A – Production and consumption controls	Stationary source does not produce, transform, destroy, import or export Class 1 or Group I or II substances or products.
40 C.F.R. 82.30 Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
40 C.F.R. 82.60 Subpart C – Ban on Nonessential Products containing Class I Substances and Ban on Nonessential Products containing or Manufactured with Class II Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.80 Subpart D – Federal Procurement	Subpart applies only to Federal departments, agencies, and instrumentalities.

Non Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 82.100 Subpart E – The Labeling of Products Using Ozone-Depleting Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.158 Subpart F – Recycling and Emission Reductions	Stationary source does not manufacture or import recovery and recycling equipment.
40 C.F.R. 82.160 Subpart F– Approved Equipment Testing Organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
40 C.F.R. 82.164 Subpart F – Reclaimer Certification	Stationary source does not sell reclaimed refrigerant.
40 C.F.R. 82, Subpart F, Appendix C – Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third part entity that certifies recovery equipment.
40 C.F.R. 82, Subpart F, Appendix D – Standards for Becoming a Certifying Program for Technicians	Stationary source does not have a technician certification program.
40 C.F.R. 82 Subpart G – Significant New Alternatives Policy Program (40 C.F.R. 82.174(a))	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.
40 C.F.R. 82 Subpart H – Halon Emissions Reduction (40 C.F.R. 82.270(a))	Stationary source does not manufacture halon.

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

- Stationary Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Emission Unit 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 Start / End		Direction From Observer Start / End		8					
Describe Emissions & Color Start		End		9					
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 Start / End		Wind Direction From Start / End		15					
Ambient Temperature		Wet Bulb Temp	RH percent	16					
SOURCE LAYOUT SKETCH:	1 Stack or Point Being Read	2 Wind Direction From		17					
3 Observer Location	4 Sun Location 5 North Arrow 6 Other Stacks			18					
				19					
				20					
				21					
				22					
				23					
				24					
				25					
				26					
				27					
				28					
				29					
				30					
				Range of Opacity					
				Minimum			Maximum		
I have received a copy of these opacity observations				Print Observer's Name					
Print Name:				Observer's Signature					Date
Signature:									Observer's Affiliation:
Title		Date		Certifying Organization					
				Certified By:				Date	

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. 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 14.5 and/or Condition 14.8. 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. Emission Factors

Use the emission factors in Table G to calculate the annual emission rates for Conditions 17, 20, and 21.

Table G – Emission Factors

Type of Equipment	NOx	CO	PM	VOC
Gas Turbines EU IDs 1, 2, & 4 – 8	The Permittee may use either the allowable short-term emission limit if greater than the source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Conditions 17 and 20 and note in the operating report which method was used for the calculation.	The Permittee may use either the allowable short-term emission limit if greater than the source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Conditions 17 and 20 and note in the operating report which method was used for the calculation.	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Condition 20 and note in the operating report which method was used for the calculation.	The Permittee may use either AP-42 emission factor if greater than source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Condition 17 and note in the operating report which method was used for the calculation.
Gas Heaters EU IDs 9 – 11	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than the source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Condition 21 and note in the operating report which method was used for the calculation.	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than the source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Condition 21 and note in the operating report which method was used for the calculation.	The Permittee may use either the allowable short-term emission limit or AP-42 emission factor if greater than the source test results, or representative source test data. The Permittee shall use only one method consistently throughout the period of the calculation required for Condition 21 and note in the operating report which method was used for the calculation.	N/A

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

Section 14. ADEC Notification Form[25]

Gathering Center #2 (GC#2)	AQ0183TVP02
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

[25] Revised as of August 24, 2006.

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

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

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

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

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

Certify Report (Go to end of form.)

Section 2. Permit Deviations

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

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recordkeeping/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 76.
Or
Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643
Or
Phone Notification: 907-451-5173
Phone notifications require a written follow-up report.
Or
Submission of information contained in this report can be made electronically at the following website:
https://myalaska.state.ak.us/dec/air/airtoolsweb/
If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]

Section 15. 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 Origin**	**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:
	Method Accuracy Description (MAD) Codes (as defined in 40 C.F.R. 51.50:
	Horizontal Reference Datum Code:
	Horizontal Accuracy (m):
	Horizontal Collection Method Code:

Certification:

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

*Printed Name:*_____*Title*_____*Date* _____

*Signature:*_____ *Phone number*_____

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

To Submit this report:

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

[18 AAC 50.346(b)(9)]