DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0265TVP03 Issue Date: Public Comment - December 24, 2015
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 **Crude Oil Topping Unit**.

The Crude Oil Topping Unit (COTU), the Prudhoe Bay Operations Center (PBOC), and the Main Construction Camp (MCC) are considered one stationary source for purposes of determining source classification under 18 AAC 50.326(a) and AS 46.14.130(b) (i.e., Title I and Title V permitting) and determining the applicable modification requirements of 18 AAC 50.302. The emission units at PBOC and MCC operate under Operating Permit No. AQ0274TVP02.

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 26, 2015 Register 215. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

Upon effective date of this permit, Operating Permit AQ0265TVP02 expires.

This operating permit becomes effective <insert date—30 days after issue date>.

John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations/Acronyms

AAC.....Alaska Administrative Code
Act .....Clean Air Act
ADEC .....Alaska Department of Environmental Conservation
AS .....Alaska Statutes
ASTM .....American Society for Testing and Materials
BACT .....best available control technology
BHp .....boiler horsepower
CEMS .....continuous emission monitoring system
C.F.R. .....Code of Federal Regulations
CMS.....continuous monitoring system
CO .....carbon monoxide
COTU .....Crude Oil Topping Unit
dscf .....dry standard cubic foot
EEMSP .....excess emissions and monitoring systems performance
EPA .....US Environmental Protection Agency
EU.....emission unit
GPH.....gallons per hour
gr./dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
H_2S.....hydrogen sulfide
HAPs .....hazardous air pollutants [HAPs as defined in AS 46.14.990]
hp.....horsepower
ID.....emission unit identification number
kPa.....kiloPascals
LAER.....lowest achievable emission rate
MACT .....maximum achievable control technology [MACT as defined in 40 C.F.R. 63]
MMBtu/hr.....million British thermal units per hour
MMscf .....million standard cubic feet
MR&R.....monitoring, recordkeeping, and reporting
NA.....not applicable
NAICS.....North American Industry Classification System
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
NO_X.....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
PM-10 .....particulate matter less than or equal to a nominal 10 microns in diameter
PM-2.5.....particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm .....parts per million
ppmv, ppmvd .....parts per million by volume on a dry basis
PSD .....Prevention of Significant Deterioration
psia .....pounds per square inch (absolute)
PTE .....potential to emit
SIC. .....Standard Industrial Classification
SO_2 .....sulfur dioxide
TPH.....tons per hour
TPY .....tons per year
VOC .....volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]
VOL .....volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol% .....volume percent
wt% .....weight percent

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:		Crude Oil Topping Unit (COTU)
Location:		70º 15´ 17.96" North; 148º 20´ 49.83" West
Physical Address:		Section 4, Township 10N, Range 15E, Umiat Meridian (Prudhoe Bay Oilfield)
Owners:		BP Exploration (Alaska) Inc. 900 E. Benson Blvd (zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612 ConocoPhillips Alaska, Inc. 700 G Street (zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360 ExxonMobil Alaska Production, Inc. 3301 C Street, Suite 400 (zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601 Chevron USA, Inc. P.O. Box 36366 Houston, TX 77236
Operator:		BP Exploration (Alaska) Inc.
Permittee's Responsible Official:		Neil Loader, East Area Operations Manager 900 East Benson Blvd (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612
Designated Agent:		CT Corporation System 9360 Glacier Highway, Suite 202 Juneau, AK 99801
Stationary Source and Building Contact:		Trevor Palaniuk/Erik Painter Prudhoe Bay Oilfield, AK (907) 659-5492 AKOPSFS2FacilityOTL@bp com
Fee and Permit Contact:		Gregory Arthur, Air Compliance Authority 900 East Benson Blvd (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612 (907) 564-4081 gregory.arthur@bp.com
Process Description:	SIC Code	1311 - Crude Petroleum and Natural Gas
	NAICS Code:	211111 - Crude Petroleum and Natural Gas Extraction

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

Section 2. Emission Unit Inventory and Description

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

Table A - Emission Unit Inventory

EU ID	Emission Unit Name	Emission Unit Description	Fuel Type	Rating/Size	Emission Controls	Installation or Construction Date
F1	Overhead Gas Flare	McGill, air-assist	Fuel Gas	250,000 SCF/day	None	1969 [1]
F2	Emergency Flare	McGill	Fuel Gas	9,000 SCF/day (pilot/purge)	None	1969
TK1	83-F-1 Storage Tank	Residential Crude & Naphtha Storage	N/A	1,500 bbls (63,000 gallons)	Flare (EU ID F1)	1986
H1	Heater	Econotherm Crude Heater	Fuel Gas	22.7 MMBtu/hr (heat input; LHV)	None	1969
H2	Heater	Radco Crude Heater	Fuel Gas	22.7 MMBtu/hr (heat input; LHV)	None	1975
H4	Heater	Broach Glycol Heater	Fuel Gas	7.5 MMBtu/hr (heat input; LHV)	None	Pre-1975 [2]
E1	Standby Air Compressor	Deutz F3L912	Diesel	52 hp	None	Pre-2005 [2]

Notes:

[1] The flare was modified in 1975.
[2] Estimated; actual date unknown.

[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 F1, F2, H1, H2, and H4 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs H1, H2, and H4, burn only natural gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 58 whether each of these emission units fired only gas during the period covered by the report. Report under Condition 57 if any fuel is burned other than gas.

1.2. For EU ID F1, monitor, record, and report in accordance with Conditions 20.1.b through 20.1.d.

1.3. For EU ID F2, monitor, record and report in accordance with Condition 5.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units (EU ID E1)

2. Visible Emissions Monitoring. When required by Condition 10.5.d, the Permittee shall observe the exhaust of EU ID E1 for visible emissions using the Method 9 Plan under Condition 2.1.

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

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

a. **First Method 9 Observation**.

(i) Observe exhaust for 18 minutes within six months after the issue date of this permit.

(ii) If EU ID E1 has exceeded the threshold in Condition 10.5.d and the unit is replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

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

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

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

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

d. **Annual Method 9 Observations**. After at least two semiannual 18-minute observations, 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 intervals as described in Condition 2.1.b, until the criteria in Condition 2.1.c for semiannual monitoring are met.

3. Visible Emissions Recordkeeping. When required by Condition 10.5.d, or in the event of replacement of EU ID E1 during the permit term, the Permittee shall keep records as follows:

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

3.1. When using the Method 9 Plan of Condition 2.1,

a. the observer shall record

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

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

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

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

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

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

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

4. Visible Emissions Reporting. When required by Condition 10.5.d, or in the event of replacement of EU ID E1 during the permit term, the Permittee shall report visible emissions as follows:

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

4.1. Include in each operating report under Condition 58 for the period covered by the report:

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

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

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-minute average observed; and

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

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

4.2. Report under Condition 57:

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.

Flare (EU ID F2)

5. Visible Emissions Monitoring, Recordkeeping, and Reporting. For EU ID F2, the Permittee shall observe one daylight flare event[1] within 12 months of the effective date of this permit and within 12 months of the preceding flare event observation thereafter. If no event exceeds 1 hour within the 12-month period, then the Permittee shall observe the next daylight flare event.

5.1. Monitor flare events using Method 9.

5.2. Record the following information for observed events:

a. the flare 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 58 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 58 for the period covered by the report.

5.5. Report under Condition 57 whenever the visible emissions standard in Condition 1 is exceeded.

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

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 F1, F2, H1, H2, and H4 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

[1] For purposes of this permit, a "flare event" is flaring of gas for greater than one hour as a result of scheduled release operations, i.e. maintenance or well testing activities. It does not include non-scheduled release operations, i.e. process upsets, emergency flaring, or de-minimis venting of gas incidental to normal operations.

6.1. For EU IDs H1, H2, and H4, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 58 whether each of these emission units fired only gas during the period covered by the report. Report under Condition 57 if any fuel other than gas is burned.

6.2. For EU IDs F1 and F2, the Permittee must annually certify compliance under Condition 59 with the particulate matter standard.

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

PM Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Engines (EU ID E1)

7. Particulate Matter Monitoring for Diesel Engines. When required by Condition 10.5.d, the Permittee shall conduct source tests on EU ID E1 to determine the concentration of particulate matter (PM) in the exhaust of the emission unit in accordance with this Condition 7.

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

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

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

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

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

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

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

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

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

8. Particulate Matter Reporting for Diesel Engines. When required by Condition 10.5.d, the Permittee shall report as follows:

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

8.1. Report under Condition 57

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

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

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

8.3. In each operating report under Condition 58, include for the period covered by the report:

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

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

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

Sulfur Compound Emission Standards Requirements

9. Sulfur Compound Emissions. In accordance with 18 AAC 50.055(c), the Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs F1, F2, H1, H2, and H4 to exceed 500 ppm averaged over three hours.

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

For Liquid Fuel (EU ID E1)

9.1. **Sulfur Compound Emissions – North Slope – Monitoring, Recordkeeping, and Reporting.** When required by Condition 10.5.d, for liquid fuel from a North Slope topping plant, the Permittee shall obtain from the topping plant the results of a monthly fuel sulfur analysis.

a. The Permittee shall include in the report required by Condition 58 a list of the sulfur content measured for each month covered by the report.

b. The Permittee shall report under Condition 57 if the sulfur content for any month exceeds 0.75%.

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

9.2. **Sulfur Compound Emissions – Third-Party Supply – Monitoring and Recordkeeping.** When required by Condition 10.5.d, for liquid fuel from a third-party supplier, the Permittee shall do one of the following for each shipment of fuel:

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

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

(i) test the fuel for sulfur content; or

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

9.3. **Sulfur Compound Emissions – Third-Party Supply – Monitoring and Recordkeeping.** Fuel testing under Condition 9.2 must follow an appropriate method listed in 18 AAC 50.035 or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

9.4. **Sulfur Compound Emissions – Third-Party Supply – Monitoring and Recordkeeping.** If a load of fuel contains greater than 0.75% sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 12 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

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

9.5. **Sulfur Compound Emissions – Third-Party Supply – Reporting.** When required by Condition 10.5.d, the Permittee shall report in accordance with this condition.

a. If SO_2 emissions are calculated under Condition 9.4 to exceed 500 ppm, the Permittee shall report under Condition 57. When reporting under this condition, include the calculation under Condition 9.4.

b. The Permittee shall include in the report required by Condition 58:

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

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

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

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

For Gas Fuel (EU IDs F1, F2, H1, H2, and H4)

9.6. **Monitoring.** The Permittee shall conduct semi-annual tests and tests upon a change in the supply of fuel to determine the H_2S content of the natural gas and refinery fuel gas. Acceptable test methods are ASTM D-4810-88, ASTM D-4913-89, and Gas Producers Association (GPA) method 2377-86.

9.7. **Recordkeeping.** Keep records of the H_2S content analysis required under Condition 9.6.

9.8. **Reporting.**

a. Report in accordance with Condition 57 whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 9.

b. Include in the operating report required by Condition 58 a list of the H_2S content analysis results obtained under Condition 9.6 during the reporting period. Report the H_2S concentration(s) in ppmv.

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

Insignificant Emission Units

10. For EU ID E1 and emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

[18 AAC 50.055(a)(1)]

10.2. **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)]

10.3. **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)]

10.4. General MR&R for Insignificant Emission Units

a. The Permittee shall submit the certification of compliance of Condition 59 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 40;

c. The Permittee shall report in the operating report required by Condition 58 if an emission unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions become greater than any of those thresholds; and

d. No other monitoring, recordkeeping or reporting is required, except as specified in Condition 10.5.

[18 AAC 50.346(b)(4)]

10.5. For EU ID E1, the Permittee shall comply with the following:

a. **Particulate Matter Record Keeping for Diesel Engines.** Within 180 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameter of EU ID E1. Report the stack diameter in the next operating report under Condition 58.

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

b. On or before the 15th of each month, record the monthly hours of operation and rolling 12-month hours of operation of EU ID E1.

c. Include copies of the records required in Condition 10.5.b in the operating report required in Condition 58 for each month of the reporting period.

d. If the hours of operation of EU ID E1 exceed 2,400 hours in any 12-consecutive-month period, monitor, record and report in accordance with Conditions 2 through 4, 7, 8, and 9.1 through 9.5 for the remainder of the permit term.

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

Section 4. Federal Requirements

Emission Units Subject to Federal NSPS Subpart A

11. NSPS Subpart A Notification. For any affected facility[2] or existing facility[3] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

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

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

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change.

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

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

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

a. the name and address of owner or operator,

b. the location of the existing facility,

c. a brief description of the existing facility and the components that are to be replaced,

d. a description of the existing and proposed air pollution control equipment,

e. an estimate of the fixed capital cost of the replacements, and of constructing a comparable entirely new facility,

f. the estimated life of the existing facility after the replacements, and

[2] Affected facility means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2.

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

g. a discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

12. 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 F1 and TK1, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system (CMS) or monitoring device for EU IDs F1 and TK1 is inoperative.

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

13. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit to the Department and to EPA an excess emissions and monitoring systems performance report (EEMSP)[4] (excess emissions are defined in Condition 21.3 and limits are in Condition 21.1) and-or summary report form (see Condition 14). The Permittee shall submit the report(s) to the EPA and Department semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the EPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

13.1. The magnitude of excess emissions computed in accordance with Condition 19.6, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

13.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU ID F1; 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]

13.3. The date and time identifying each period during which a CMS was inoperative except for zero and span checks and the nature of any repairs or adjustments.

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

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

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

[4] The federal EEMSP report is not the same as the state excess emission report required by Condition 57.

14. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU ID F1. The report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows:

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

14.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form unless the EEMSP report described in Condition 13 is requested, or

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

14.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form and the EEMSP described in Condition 13.

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

15. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to Section 6 and as indicated in this condition 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. The Permittee shall:

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

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

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

15.2. Conduct source tests under conditions specified by EPA to be based on representative performance of EU ID F1. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

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

15.3. Notify the Department and EPA at least 30 days in advance of the source test. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the Permittee shall notify the EPA and Department as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the EPA by mutual agreement.

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

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

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

15.5. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in Conditions 21.5 and 21.5.a through 21.5.c. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the EPA's approval, be determined using the arithmetic mean of the results of the two other runs.

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

16. 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 F1 and TK1 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The EPA Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs F1 and TK1.

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

17. 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 21.1 and 22.1, 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 F1 and TK1 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

18. NSPS Subpart A Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Condition 21.1 or 22.1. 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]

19. NSPS Subpart A Monitoring. For a continuous monitoring system (CMS) required under Condition 21.2, the Permittee shall comply with the following:

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

19.1. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 C.F.R. 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

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

19.2. The owner or operator of an affected facility shall conduct a performance evaluation of the continuous emission monitoring system (CEMS) during any performance test required under 40 C.F.R. 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 C.F.R. Part 60. The owner or operator of an affected facility shall conduct CEMS performance evaluations at such other times as may be required by the EPA Administrator under section 114 of the Act.

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

a. The owner or operator of an affected facility shall furnish the EPA Administrator and Department within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

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

19.3. Owners and operators of a CEMS installed in accordance with the provisions of 40 C.F.R. Part 60, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. The zero and span must, at a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of 40 C.F.R. Part 60. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified.

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

19.4. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 19.3, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

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

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

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

19.5. All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of 40 C.F.R. Part 60 shall be used.

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

19.6. Owners or operators of all continuous monitoring systems other than opacity shall reduce all data to 1-hour averages for time periods as defined in 40 C.F.R. 60.2.

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

a. 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

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

(i) Except as provided under Condition 19.6.a(iii), for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under Condition 19.6.a(iii), for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

[40 C.F.R. 60.13(h)(2)(i) through (iii), Subpart A]

(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.

[40 C.F.R. 60.13(h)(2)(iii)(A) & (B), Subpart A]

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of Condition 19.6.a(iii) are met, based solely on valid data recorded after the successful calibration.

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

(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.

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

(vi) Data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.

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

(vii) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

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

b. All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

[40 C.F.R. 60.13(h)(3), Subpart A]

20. NSPS Subpart A General Control Device Requirements. For EU ID F1, the Permittee shall comply with the following:

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.18, Subpart A]

20.1. Flares shall be designed for and operated with no visible emissions as determined by the methods specified in Condition 20.1.b(ii), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

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

a. The opacity standard set forth in Condition 20.1 shall apply at all times except during periods of startup, shutdown, or malfunction.

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

b. **Monitoring.** The Permittee shall observe EU ID F1 for at least 5 consecutive minutes during daylight hours at least once in every calendar month EU ID F1 operates.

(i) Observations may be made via remote video camera monitoring from the control room if an operator cannot see the flare through a window or does not go outside to make direct observations.

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

(ii) If visible emissions are observed at any time during EU ID F1 normal operations, the Permittee shall use Method 22 of appendix A to 40 C.F.R. 60 to determine the compliance of EU ID F1 with the visible emission provisions of Condition 20.1. The observation period is 2 hours and shall be used according to Method 22. If visible emissions are noted for a total of more than 5 minutes during the Method 22 observation:

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

(A) Initiate corrective actions to eliminate visible emissions from EU ID F1 within 24 hours of the Method 22 observation;

(B) After completing the corrective actions, conduct another 2-hour Method 22 observation.

(iii) If visible emissions are noted during the observations of Condition 20.1.b, observe EU ID F1 following 40 C.F.R. 60 Appendix A, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations. The Method 9 readings must be started as soon as possible, but within 24 hours of the observation under Condition 20.1.b to assess compliance with Condition 1. The 24-hour clock is stopped only while corrective actions are occurring.

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

c. **Recordkeeping.**

(i) For each observation required by Conditions 20.1.b, 20.1.b(ii), and 20.1.b(ii)(B), record the following information in a written log:

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

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

(C) For observations conducted under

(1) Condition 20.1.b, whether visible emissions are present or absent, or

(2) Conditions 20.1.b(ii) and 20.1.b(ii)(B), the accumulated time visible emissions are present;

(D) A description of the background to the flare during the observation;

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

(F) A description of any corrective actions taken to reduce visible emissions.

(ii) For each observation required by Condition 20.1.b(iii),

(A) The observer shall record as specified in Condition 3.1.a.

(B) Six-minute average opacities shall be determined as specified in Condition 3.1.b.

(C) Calculate and record the highest 6-minute average opacity.

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

d. **Reporting.** For EU ID F1, the Permittee shall report as follows:

(i) Report in accordance with Condition 57:

(A) For failure to conduct monitoring or recordkeeping required under Conditions 20.1.b and 20.1.c.

(B) Any time the limit in Condition 20.1 is exceeded, in accordance with Condition 20.1.a.

(C) Any time the limit in Condition 1 is exceeded.

(ii) Submit with the operating report required in Condition 58 copies of the records required under Conditions 20.1.c(i) and 20.1.c(ii).

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

20.2. Flares shall be operated with a flame present at all times.

[40 C.F.R. 60.18(c)(2), Subpart A]

a. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

[40 C.F.R. 60.18(f)(2), Subpart A]

20.3. The owner/operator shall adhere to the heat content specifications in Condition 20.3.a and the maximum tip velocity specifications in Condition 20.3.b.

a. Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater. The net heating value of the gas being combusted shall be determined by the methods specified in Condition 20.6.

[40 C.F.R. 60.18(c)(3)(ii), Subpart A]

b. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the methods specified in Conditions 20.7 and 20.8.

[40 C.F.R. 60.18(c)(5), Subpart A]

c. The Permittee shall maintain records of:

(i) The net heating value of the gas vented to EU ID F1,

(ii) V_{max} for EU ID F1, and

(iii) The actual exit velocity for EU ID F1.

d. The Permittee shall report in accordance with Condition 57:

(i) any time the net heating value of the gas vented to EU ID F1 is less than 300 Btu/scf , and

(ii) any time the actual exit velocity for EU ID F1 is equal to or greater than V_{max} for EU ID F1.

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

20.4. Owners or operators of flares used to comply with the provisions of NSPS Subpart A shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

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

20.5. Flares used to comply with provisions of NSPS Subpart A shall be operated at all times when emissions may be vented to them.

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

20.6. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

[40 C.F.R. 60.18(f)(3), Subpart A]

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

K = Constant, 1.740×10^{-7} (1/ppm)(g mole/scm)(MJ/kcal) where the standard temperature for (g mole/scm) is 20° C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in 40 C.F.R. 60.17); and

H_i = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in 40 C.F.R. 60.17) if published values are not available or cannot be calculated.

20.7. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate[5] (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[40 C.F.R. 60.18(f)(4), Subpart A]

20.8. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation.

[40 C.F.R. 60.18(f)(6), Subpart A]

$$V_{max} = 8.706 + 0.7084(H_T)$$

Where:

V_{max} = Maximum permitted velocity, m/sec

8.706 = constant

0.7084 = constant

H_T = The net heating value as determined in Condition 20.6.

Emission Units Subject to Federal NSPS Subpart J

21. The Permittee shall comply with all applicable requirements of NSPS Subpart J. For EU IDs F1 the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(J), 50.040(j), & 50.326(j)]
[40 C.F.R. 60.100(a), Subpart J]

[5] The flow measurement requirement applies to vapors to the flare which originate from the overhead accumulator, and is waived for vapors to the flare which originate from the residuum tank.

NSPS Subpart J Standards for Sulfur Oxides

21.1. The owner or operator shall not burn in any fuel gas combustion device any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf, 162 ppmv). The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

[40 C.F.R. 60.104(a)(1), Subpart J]

NSPS Subpart J Monitoring

21.2. Continuous monitoring systems shall be installed, calibrated, maintained, and operated by the owner or operator as follows:

[40 C.F.R. 60.105(a), Subpart J]

a. The Permittee shall use an instrument for continuously monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.

[40 C.F.R. 60.105(a)(4), Subpart J]

(i) The span value for this instrument is 425 mg/dscm H_2S.

(ii) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.

(iii) The performance evaluations for this H_2S monitor under Condition 19.2 shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

[40 C.F.R. 60.105(a)(4)(i) through (iii), Subpart J]

(iv) The owner or operator of a fuel gas combustion device is not required to comply with Condition 21.2.a for fuel gas streams that are exempt under Condition 21.1 and fuel gas streams combusted in a fuel gas combustion device that are inherently low in sulfur content. Pilot gas for heaters and flares will be considered inherently low in sulfur content.

[40 C.F.R. 60.105(a)(4)(iv) & (a)(4)(iv)(A), Subpart J]

21.3. For the purpose of reports under Condition 13, periods of excess emissions that shall be determined and reported are defined as all rolling 3-hour periods during which the average[6] concentration of H_2S as measured by the H_2S continuous monitoring system under Condition 21.2.a exceeds 230 mg/dscm (0.10 gr/dscf).

[40 C.F.R. 60.105(e) & (e)(3)(ii), Subpart J]

[6] Average shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.

NSPS Subpart J Test Methods and Procedures

21.4. In conducting the performance tests required in 40 C.F.R. 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 C.F.R. Part 60 or other methods and procedures as specified in Condition 21.5, except as provided in 40 C.F.R. 60.8(b).

[40 C.F.R. 60.106(a), Subpart J]

21.5. The owner or operator shall determine compliance with the H_2S standard in Condition 21.1 as follows: Method 11, 15, 15A, or 16 shall be used to determine the H_2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line.

[40 C.F.R. 60.106(e)(1), Subpart J]

a. For Method 11, the sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run. For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H_2S may necessitate sampling for longer periods of time.

b. For Method 15 or 16, at least three injects over a 1-hour period shall constitute a run.

c. For Method 15A, a 1-hour sample shall constitute a run.

[40 C.F.R. 60.106(e)(1)(i) through (iii), Subpart J]

NSPS Subpart J Recordkeeping Requirements

21.6. For each fuel gas stream combusted in a fuel gas combustion device subject to Condition 21.1, if an owner or operator determines that the exemption listed in Condition 21.2.a(iv) applies to that fuel gas stream, the owner or operator shall maintain records of the specific exemption chosen for each fuel gas stream.

[40 C.F.R. 60.107(e), Subpart J]

Storage Vessels Subject to Federal NSPS Subpart Kb

22. For EU ID TK1, the Permittee shall comply with all applicable requirements of NSPS Subpart Kb for storage vessels with a capacity greater than or equal to 75 cubic meters (m^3) that are used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

[18 AAC 50.040(a)(2)(M), 50.040(j), & 50.326(j)]
[40 C.F.R. 60.110b(a), Subpart Kb]

NSPS Subpart Kb Standard for VOC

22.1. The Permittee shall equip EU ID TK1 with a closed vent system and control device meeting the following specifications:

[40 C.F.R. 60.112b(a) & (a)(3), Subpart Kb]

a. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in Condition 22.1.a(i).

[40 C.F.R. 60.112b(a)(3)(i), Subpart Kb]

(i) Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

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

(A) Zero air (less than 10 ppm of hydrocarbon in air); and

(B) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

[40 C.F.R. 60.485(b)(1)(i) & (ii), Subpart VV]

b. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. EU ID F1 shall meet the specifications described in Condition 20.

[40 C.F.R. 60.112b(a)(3)(ii), Subpart Kb]

NSPS Subpart Kb Testing and Procedures

22.2. The Permittee shall meet the requirements as specified in the general control device requirements, Condition 20.5 and Conditions 20.1.b(ii), 20.2.a, and 20.6 through 20.8.

[40 C.F.R. 60.113b(d), Subpart Kb]

NSPS Subpart Kb Reporting and Recordkeeping

22.3. The Permittee shall keep copies of all reports and records required by this condition for at least 2 years.

[40 C.F.R. 60.115b, Subpart Kb]

a. After installing a closed vent system and flare to comply with Condition 22.1, the Permittee shall meet the following requirements.

[40 C.F.R. 60.115b(d), Subpart Kb]

(i) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(ii) Semiannual reports of all periods recorded under Condition 22.3.a(i) in which the pilot flame was absent shall be furnished to the EPA Administrator and Department.

[40 C.F.R. 60.115b(d)(2) & (3), Subpart Kb]

NSPS Subpart Kb Monitoring

22.4. The Permittee shall keep readily accessible records showing the dimension of EU ID TK1 and an analysis showing the capacity of the storage vessel. The records will be kept for the life of the source.

[40 C.F.R. 60.116b(a) & (b), Subpart Kb]

Federal NESHAP (40 C.F.R. 61) Subpart FF

23. The Permittee shall comply with the following:

[18 AAC 50.040(b)(2)(E), 50.040(j), & 50.326(j)]
[40 C.F.R. 61.342(a) & 61.355(a)(5), Subpart FF]

23.1. Comply with the recordkeeping requirements of Conditions 23.1.a and 23.1.b and reporting requirements of Condition 23.1.c

[40 C.F.R. 61.355(a)(5)(i), Subpart FF]

a. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

b. Each owner or operator shall maintain records that identify each waste stream at the facility subject to 40 C.F.R. 61 Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 C.F.R. 61 Subpart FF.

[40 C.F.R. 61.356(a) & (b), Subpart FF]

(i) For each waste stream not controlled for benzene emissions in accordance with 40 C.F.R. 61 Subpart FF, the records shall include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.

[40 C.F.R. 61.356(b)(1), Subpart FF]

c. If the total annual benzene quantity from facility waste is less than 1 Mg/yr (1.1 ton/yr), then the owner or operator shall submit to the EPA and Department a report that updates the information listed in 40 C.F.R. 61.357(a)(1) through (a)(3) whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

[40 C.F.R. 61.357(b), Subpart FF]

23.2. Repeat the determination of total annual benzene quantity from facility waste whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 1 Mg/yr (1.1 ton/yr) or more.

[40 C.F.R. 61.355(a)(5)(ii), Subpart FF]

Emission Units Subject to Federal NESHAP (40 C.F.R. 63) Subpart A

24. NESHAP Subpart A Requirements. For EU ID E1, 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 NESHAP Subpart ZZZZ.

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

Engines Subject to Federal NESHAP Subpart ZZZZ

25. For EU ID E1, the Permittee shall comply with all applicable requirements of NESHAP Subpart ZZZZ for stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6585, 63.6590, & 63.6590(a), Subpart ZZZZ]

NESHAP Subpart ZZZZ Emission Limitations, Operating Limitations, and Other Requirements

25.1. For EU ID E1, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

a. You must meet the following requirements, except during periods of startup:

(i) Change oil and filter every 1,000 hours of operation or annually, whichever comes first;

(ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

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

b. During periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

c. Sources have the option to utilize an oil analysis program as described in Condition 25.4 in order to extend the specified oil change requirement in Condition 25.1.a(i).

[40 C.F.R. 63.6603(a), 63.6625(h), & Table 2d, Item 1, Subpart ZZZZ]

NESHAP Subpart ZZZZ General Requirements

25.2. For EU ID E1, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

a. You must be in compliance with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to you at all times.

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

b. At all times you must operate and maintain any affected source, 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 you to make 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 the source.

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

NESHAP Subpart ZZZZ Monitoring, Installation, Collection, Operation, and Maintenance Requirements

25.3. For EU ID E1, the Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6625(e), Subpart ZZZZ]

25.4. For EU ID E1, the Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 25.1.a. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 25.1.a. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later. The Permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.6625(i), Subpart ZZZZ]

NESHAP Subpart ZZZZ Requirements for Demonstration of Continuous Compliance with Emission Limitations, Operating Limitations, and Other Requirements

25.5. For EU ID E1, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 25.1 according to methods specified in Condition 25.5.a(i) or 25.5.a(ii).

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

(i) Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

(ii) Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[Table 6, Item 9, Subpart ZZZZ]

b. You must also report each instance in which you did not meet the requirements in Table 8 to NESHAP Subpart ZZZZ that apply to you.

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

NESHAP Subpart ZZZZ Reporting Requirements

25.6. For EU ID E1, the Permittee must report all deviations as defined in NESHAP Subpart ZZZZ in the semiannual monitoring report required by Condition 58.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]
[40 C.F.R. 63.6650(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Recording Requirements

25.7. For EU ID E1, the Permittee shall comply with the following:

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

a. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.

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

b. Your records must be in a form suitable and readily available for expeditious review according to 40 C.F.R. 63.10(b)(1).

[40 C.F.R. 63.6660(a), Subpart ZZZZ]

c. As specified in 40 C.F.R. 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

[40 C.F.R. 63.6660(b), Subpart ZZZZ]

d. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. 63.10(b)(1).

[40 C.F.R. 63.6660(c), Subpart ZZZZ]

General Federal Requirements

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

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

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

Subpart F – Recycling and Emissions Reduction

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

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

Subpart G – Significant New Alternatives Policy

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

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

Subpart H – Halon Emissions Reduction

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

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

NESHAPs Applicability Determinations

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

28.1. After the effective date of any relevant standard promulgated by the Administrator under 40 C.F.R. 63, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator and the Department of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 C.F.R. 63.9(b).

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

29. NSPS and NESHAP Reports. The Permittee shall:

29.1. **Reports:** Attach to the operating report required by Condition 58 for the period covered by the report, a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10, unless previously submitted to the Department; and

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

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

Section 5. General Conditions

Standard Terms and Conditions

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

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

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

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

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

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

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

[18 AAC 50.326(j)(1), 50.400, 50.403, & 50.405]
[AS 37.10.052(b) & AS 46.14.240]

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

34.1. the COTU's assessable potential to emit of 106 TPY; or

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

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

b. material balance calculations;

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

d. other methods and calculations approved by the Department.

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

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

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

35.2. 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 34.1.

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

36. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs F2, H1, H2, and H4:

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

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

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

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

37. 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)]

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

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

38.1. The Permittee shall keep records of

a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and

b. any additional precautions that are taken

(i) to address complaints described in Condition 38.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

38.2. The Permittee shall report according to Condition 40.

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

[18 AAC 50.055(g)]

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

[18 AAC 50.110, 50.040(e), 50.326(j)(3), & 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

40.1. Monitoring, Recordkeeping, and Reporting for Condition 40:

a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 57.

b. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 40.

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

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 40; or

b. the Department notifies the Permittee that it has found a violation of Condition 40.

40.3. The Permittee shall keep records of

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 40; and

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

40.4. With each operating report under Condition 58, 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.

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

41. 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[7] listed in Conditions 20.1, 21.1, 22.1, or 27 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 57 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 57.

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

Open Burning Requirements

42. Open Burning. The Permittee shall not conduct open burning at the COTU, except as allowed by an open burn permit issued to the Permittee by the Department.

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

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

Section 6. General Source Testing and Monitoring Requirements

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

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

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

[18 AAC 50.220(b)]

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

44.2. 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

47. Test Exemption. The Permittee is not required to comply with Conditions 49, 50 and 51 when the exhaust is observed for visible emissions by the Method 9 Plan (Condition 2.1).

[18 AAC 50.345(a)]

48. 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)]

49. Test Plans. Except as provided in Condition 47, 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 43 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)]

50. Test Notification. Except as provided in Condition 47, 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)]

51. Test Reports. Except as provided in Condition 47, 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 54. 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)]

52. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 10.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

53. 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) & 50.326(j)]
[40 C.F.R 60.7(f), Subpart A, 40 C.F.R 71.6(a)(3)(ii)(B)]

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

53.2. 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.

53.3. A file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 C.F.R. 60 recorded in a permanent form suitable for inspection.

Reporting Requirements

54. 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.

54.1. 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 54.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

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

55. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original and one copy of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 54.

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

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

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

57. Excess Emissions and Permit Deviation Reports.

57.1. Except as provided in Condition 40, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

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

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

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

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

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the excess emissions or deviation occurred, except as provided in Conditions 57.1.c(ii) and 57.1.c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 57.1.c(i); and

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

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

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

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

58. Operating Reports. During the life of this permit[8], 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.

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

58.2. When excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 58.1, the Permittee shall identify

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

58.3. When excess emissions or permit deviations have already been reported under Condition 57, the Permittee shall cite the date or dates of those reports.

[8] *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.

58.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Condition 2.1.e 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.

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

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

59. 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[9].

59.1. 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;

59.2. **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.

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

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

[9] See Condition 59.2 for clarification on the number of reports required.

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

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

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

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

60.2. The Permittee shall commence reporting in 2015 for the calendar year of 2014, 2018 for calendar year 2017, etc.

60.3. Include in the report required by this condition, the required data elements contained within the form in Section 14 or those contained in Table 2A of Appendix A to Subpart A of 40 C.F.R. 51 (final rule published in 73 FR 76556 (December 17, 2008)) for each stack associated with an emission unit.

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

Section 8. Permit Changes and Renewal

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

61.1. 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[10];

61.2. The information shall be submitted to the same address as in Condition 59.3.

61.3. 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

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

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

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

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

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

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

63.2. 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;

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

[10] The documents required in Condition 61.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501.

63.4. The Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

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

64. Operational Flexibility. The Permittee may make Section 502(b)(10)[11] 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):

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

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

64.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 64.

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

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

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

[11] As defined in 40 C.F.R. 71.2, Section 502(b)(10) changes are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

Section 9. Compliance Requirements

General Compliance Requirements

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

66.1. included and specifically identified in the permit; or

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

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

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

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

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

a. an enforcement action;

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

c. denial of an operating permit renewal application.

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

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

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

69. 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

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

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

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

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

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

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

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

Section 10. Permit As Shield from Inapplicable Requirements

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

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

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

71.2. 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)]

72. Table B 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 B becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis. The Permittee shall also provide appropriate notification and apply for a minor or construction permit and/or an operating permit modification, as necessary.

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

Table B - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
F1	40 C.F.R. 60 Subpart J - Standards of Performance for Petroleum Refineries §60.102 - Standard for Particulate Matter §60.103 - Standard for Carbon Monoxide §60.104(a)(2), (b)-(d) - Standards for Sulfur Oxides §60.105(a)(1)-(2) - Monitoring of Emissions and Operations §60.105(a)(5)-(a)(13), (b), (c), (d), (e)(1)-(2), (4) §60.107(a)-(e) - Reporting and Recordkeeping Requirements §60.108 - Performance Test and Compliance Provisions	Standards and requirements apply to fluid catalytic cracking (FCC) unit catalyst regenerators or Claus sulfur recovery plants. Topping unit does not operate FCC unit catalyst regenerators or Claus sulfur recovery plant.
F1	40 C.F.R. 60.105(a)(3), (e)(3)(i) - Monitoring of Emissions and Operations	In place of the SO_2 monitor in 40 C.F.R. 60.105(a)(3), fuel gas H_2S content is monitored continuously, as provided in 40 C.F.R. 60.105(a)(4).
F1	40 C.F.R. 60.7(a)(1) and (3) - Notification and Recordkeeping (Initial Notification); 40 C.F.R. 60.115b(d)(1) – Initial Reporting Requirement	Obsolete requirements - completed as required.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
F1	40 C.F.R. 60 Appendix F to Part 60—Quality Assurance Procedures	The H_2S CMS required by Subpart J is used to determine excess emissions, but is not used to demonstrate continuous compliance and is not subject to Appendix F.
F1	40 C.F.R. 60 Subpart Ja—Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007	The stationary source commenced construction, reconstruction or modification prior to May 14, 2007.
F1	40 C.F.R. 60.18(c)(4) & (f)(5) - General Control Device Requirements: Exit Velocity Requirements for Steam-assisted and Non assisted Flares	The overhead gas flare at the COTU is not steam-assisted or non-assisted. This flare is air assisted.
F1, F2, H1, H2, H4, Insignificant Tanks	40 C.F.R. 64 - Compliance Assurance Monitoring	This unit does not use a control device to achieve compliance with any emission limitation or standard.
F2	40 C.F.R. 60.18 - General Control Device Requirements	This flare is not a control device used to comply with applicable Subparts of 40 C.F.R. 60 and 40 C.F.R. 61.
F2	40 C.F.R. 60 Subpart J - Standards of Performance for Petroleum Refineries	This unit does not combust "fuel gas" as defined in the subpart [40 C.F.R. 60.101(d)] and, therefore, does not meet the definition of a "fuel gas combustion device" outlined in 40 C.F.R. 60.101(g).
H1, H2, H4	40 C.F.R. 60 Subpart D - Standards of Performance for Fossil Fuel-Fired Steam Generators	Heat input capacity below threshold (250 MMBtu/hr); and unit not classified as a Fossil-Fuel-Fired Steam Generator, as defined in subpart.
H1, H2, H4	40 C.F.R. 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units	Heat input capacity below threshold (250 MMBtu/hr); and unit not classified as an Electric Utility Steam Generating Unit, as defined in subpart.
H1, H2, H4	40 C.F.R. 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Heat input capacity below threshold (100 MMBtu/hr); and unit commenced construction prior to effective date of subpart (June 19, 1984).
H1, H2	40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	This unit commenced construction prior to effective date of subpart (June 9, 1989).
H1, H2, H4	40 C.F.R. 60 Subpart J - Standards of Performance for Petroleum Refineries	This unit does not combust "fuel gas" as defined in the subpart [40 C.F.R. 60.101(d)] and, therefore, does not meet the definition of a "fuel gas combustion device" outlined in 40 C.F.R. 60.101(g).
H1, H2, H4	40 C.F.R. 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial/Commercial/Institutional Boilers and Process Heaters	The Crude Oil Topping Unit is not a major source of hazardous air pollutants.
H1, H2, H4	40 C.F.R. 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources	This heater at COTU is not a boiler as defined in the rule at 40 C.F.R. 63.11237.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
H4	40 C.F.R. 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Heat input capacity below threshold (10 MMBtu/hr).
E1	40 C.F.R. 60, Subpart IIII – NSPS for Stationary Compression Ignition Internal Combustion Engines	Construction, modification, or reconstruction of the IC engine commenced prior to the applicability date of July 11, 2005.
E1	40 C.F.R. 63.6600, 63.6601, and 63.6602, Subpart ZZZZ – Emission Limitations 40 C.F.R. 63.6610 and §63.6611, Subpart ZZZZ – Testing and Initial Compliance Requirements	Stationary source is not a major source of HAP emissions.
E1	40 C.F.R. 63.6650(g), Subpart ZZZZ – Reporting Requirements	Reporting requirement only applies to "new" or reconstructed stationary RICE which fire landfill gas or digester gas. This engine is fired exclusively on liquid fuel.
E1	40 C.F.R. 63.6655(a) – (d), Subpart ZZZZ - Recordkeeping Requirements	There are no emissions or operating limits which apply to the engine. Additionally, the engine does not fire landfill or digester gas and a CEMS or CPMS is not required.
E1	40 C.F.R. 63.6625(f), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements 40 C.F.R. 63.6640(f), Subpart ZZZZ – Continuous Compliance Demonstration	This engine is not an emergency engine.
E1	40 C.F.R. 63.6655(f), Subpart ZZZZ - Recordkeeping Requirements	This engine is not an emergency engine and is not required to limit hours of operation per 40 C.F.R. 63.6640(f).
E1	40 C.F.R. 63, Subpart ZZZZ, Table 2b - Operating Limitations	There are no requirements in Table 2b of Subpart ZZZZ that apply to the engine because it is rated ≤ 500 hp.
E1	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 non-emergency engines with a site rating of ≤ 300 hp.
E1	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 the engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, 63.6611 and Table 2d of Subpart ZZZZ.
E1	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 the engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, 63.6611 and Table 2d of Subpart ZZZZ.
E1	40 C.F.R. 63.6625(g), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	This requirement does not apply to non-emergency engines with a site rating of < 300 hp.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
E1	40 C.F.R. 63.6630, Subpart ZZZZ – Initial Compliance Demonstration	There are no performance testing requirements that apply to the engine because there are no applicable emission limitations per 40 C.F.R. 63.6610, 63.6611 and Table 2d of Subpart ZZZZ.
E1	40 C.F.R. 63.6635, Subpart ZZZZ – 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 the engine.
E1	40 C.F.R. 63.6640(b) and 63.6650(a) - (e), Subpart ZZZZ – Reporting 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 the engine.
E1	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), notifications are not required for existing stationary CI RICE that are not subject to any numerical emission standards.
E1	40 C.F.R. 63.7, Subpart A – Performance Testing Requirements	There are no performance testing requirements that apply to this engine.
E1	40 C.F.R. 63.8(e), (f)(4) and (f)(6)	Per 40 C.F.R. 63.6645(a)(5), this engine is not subject to the requirements of 40 C.F.R. 63.8(e), (f)(4) and (f)(6).
TK1, Insignificant Tanks	40 C.F.R. 60 Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Commenced construction prior to effective date of subpart (May 4, 1987).
TK1, Insignificant Tanks	40 C.F.R. 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction after 5/19/1978.
TK1	40 C.F.R. 60.113b(c) - Testing and Procedures (Operating and Maintenance Plan) 40 C.F.R. 60.115b(c) – Reporting and Recordkeeping Requirements	Vessel equipped with a flare control device is exempt from these requirements. Vapors from this tank are vented directly to, and controlled by, the Overhead Gas Flare (F1).
TK1	40 C.F.R. 60.115b(d)(1) – Reporting Requirements (Initial Reporting Requirements)	One-time requirement – completed as required.
TK1	40 C.F.R. 60.116b(c) & (d) – Monitoring of Operations	Vessel equipped with a closed vent system and control device meeting the specifications of 40 C.F.R. 60.112b is exempt from monitoring provisions of 40 C.F.R. 60.116b(c) and (d) [ref. 40 C.F.R. 60.116b(g)].
TK1, Insignificant 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.
TK1, Insignificant Tanks	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.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
TK1	40 C.F.R. 64 - Compliance Assurance Monitoring	This unit does not have potential pre-control device emissions of an applicable regulated air pollutant equal to or greater than 100 tpy (criteria pollutants), 10 tpy any hazardous air pollutant (HAP), or 25 tpy all HAPs combined.
Insignificant Tanks	40 C.F.R. 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids	Commenced construction after 7/23/1984.
Insignificant Tanks	40 C.F.R. 60 Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)	Subpart Kb does not apply to vessels with a capacity ≥ 151 m^3 storing a liquid with a maximum true vapor pressure < 3.5 kPa (0.5 psia).
Non-road engines	18 AAC 50.055(a)(1), (b)(1), and (c)	Mobile internal combustion engines are not included in the definition of fuel-burning equipment (see 18 AAC 50.990)
Non-road engines	40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	This rule applies to stationary engines (see 40 C.F.R. 60.4200(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.
Non-road engines	40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines	This rule applies to stationary engines (see 40 C.F.R. 63.6585(a)). These engines do not meet the definition of stationary internal combustion engines as provided in the rule.
Stationary Source-Wide	40 C.F.R. 60 Subpart VV	The stationary source is not in the synthetic organic chemicals manufacturing industry.
Stationary Source-Wide	40 C.F.R. 60 Subpart VVa	The stationary source is not in the synthetic organic chemicals manufacturing industry.
Stationary Source-Wide	40 C.F.R. 60 Subpart GGG	Commenced construction prior to effective date of subpart (January 4, 1983).
Stationary Source-Wide	40 C.F.R. 61 Subpart J	No process components in benzene service, as defined by subpart (10 percent benzene by weight).
Stationary Source-Wide	40 C.F.R. 61.142 - Standard for Asbestos Mills	Stationary source is not an Asbestos Mill.
Stationary Source-Wide	40 C.F.R. 61.143 - Standard for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste.
Stationary Source-Wide	40 C.F.R. 61.144 - Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos.
Stationary Source-Wide	40 C.F.R. 61.146 - Standard for Spraying	Stationary source does not spray apply asbestos containing materials.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Stationary Source-Wide	40 C.F.R. 61.147 - Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos.
Stationary Source-Wide	40 C.F.R. 60 61.148 - Standard for Insulating Materials	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos.
Stationary Source-Wide	40 C.F.R. 61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to those stationary sources subject to 40 C.F.R. 61.142 (Asbestos Mills).
Stationary Source-Wide	40 C.F.R. 61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those stationary sources subject to 40 C.F.R. 61.142, 61.144, or 61.147 (Asbestos Mills, manufacturing or fabricating).
Stationary Source-Wide	40 C.F.R. 61.152 - Standard for air cleaning	Stationary source does not use air cleaning equipment.
Stationary Source-Wide	40 C.F.R. 61.153 - Standard for Reporting	No reporting requirements apply for emission units subject to 40 C.F.R. 61.145 (demolition and renovation) [ref. 40 C.F.R. 61.153(a)].
Stationary Source-Wide	40 C.F.R. 61.154 - Standard for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material.
Stationary Source-Wide	40 C.F.R. 61.155 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Stationary source does not process regulated asbestos containing material (RACM).
Stationary Source-Wide	40 C.F.R. 61 Subpart A – General Provisions 40 C.F.R. 61.05(a) - Prohibited Activities 40 C.F.R. 61.07 – Application for Approval of Construction or Modification 40 C.F.R. 61.09 – Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of 40 C.F.R. 61.05(a), 61.07, and 61.09 [ref. 40 C.F.R. 61.145(a)(5)].
Stationary Source-Wide	40 C.F.R. 61.10 – Source Reporting and Waiver Request	Demolition and renovation operations exempt from 40 C.F.R. 61.10(a) [ref. 40 C.F.R. 61.153(b)].
Stationary Source-Wide	40 C.F.R. 61.13 – Emission Tests 40 C.F.R. 61.14 – Monitoring Requirements	Emission tests or monitoring is not required under the standards for demolition and renovation [40 C.F.R. 61.145].
Stationary Source-Wide	40 C.F.R. 61 Subpart V – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	Stationary source does not operate equipment in volatile hazardous air pollutant (VHAP) service (≥ 10% VHAP by weight).
Stationary Source-Wide	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.
Stationary Source-Wide	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.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Stationary Source-Wide	40 C.F.R. 61 Subpart FF – National Emission Standard for Benzene Waste Operations (40 C.F.R. 61.342 through 61.354).	The total annual benzene quantity from stationary source waste is less than 1.0 megagram per year (Mg/yr) as stated in AAI letters dated January 4, 1991 and April 5, 1993. Only the test methods and procedures of 40 C.F.R. 61.355 and reporting and recordkeeping requirements of 40 C.F.R. 61.356 and 61.357 apply.
Stationary Source-Wide	40 C.F.R. 63 Subpart HH- National Emission Standards for Hazardous Air Pollutants from Oil and Natural gas Production Facilities	Subpart HH does not apply to any stationary source that does not contain an affected source, as specified in 40 C.F.R. 63.760(b), as provided by 40 C.F.R. 63.760(d). The Crude Oil Topping Unit does not contain an affected source.
Stationary Source-Wide	40 C.F.R. 63 Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries 40 C.F.R. 63 Subpart UUU – National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units	This stationary source is not primarily engaged in petroleum refining, as defined in the Standard Industrial Classification (SIC) code 2911 and the North American Industry Classification (NAIC) code 32411. The stationary source is classified under SIC 1311. Subparts CC and UUU do not apply.
Stationary Source-Wide	40 C.F.R. 63 Subpart EEEE – National Emission Standards for Organic Liquid Distribution	The Crude Oil Topping Unit is not a major source of hazardous air pollutants.
Stationary Source-Wide	40 C.F.R. 68 Accidental Release Prevention Requirements	The only regulated substances present in any process above the threshold quantities are naturally occurring hydrocarbon mixtures. Those are exempt from 40 C.F.R. 68.
Stationary Source-Wide	40 C.F.R. 82.1 Subpart A – Production and Consumption Controls	Stationary source does not produce, transform, destroy, import or export Class I or Group I or II substances or products.
Stationary Source-Wide	40 C.F.R. 82.30 Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source does not service motor vehicle air conditioners.
Stationary Source-Wide	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.
Stationary Source-Wide	40 C.F.R. 82.80 Subpart D – Federal Procurement	Subpart applies only to Federal facilities.
Stationary Source-Wide	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 or Class II products or substances.
Stationary Source-Wide	40 C.F.R. 82.158 Subpart F – Recycling and Emissions Reduction	Stationary source does not manufacture or import recovery and recycling equipment.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
Stationary Source-Wide	40 C.F.R. 82.160 – Approved equipment testing organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
Stationary Source-Wide	40 C.F.R. 82.164 – Reclaimer certification	Stationary source does not sell reclaimed refrigerant.
Stationary Source-Wide	40 C.F.R. 82, Subpart F, Appendix C - Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third party entity that certifies recovery equipment.
Stationary Source-Wide	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.
Stationary Source-Wide	40 C.F.R. 82.174(a) Subpart G – Significant New Alternatives Policy Program	Stationary source does not manufacture substitute chemicals or products for ozone-depleting compounds.
Stationary Source-Wide	40 C.F.R. 82.270(a), Subpart H- Halon Emissions Reduction.	Stationary source does not manufacture halon.
Stationary Source-Wide	18 AAC 50.055(d) – Petroleum Refinery Emissions	Emission units were constructed and/or last modified before November 1, 1982.
Stationary Source-Wide	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.
Stationary Source-Wide	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.

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

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

  Wet Bulb Temperature: can be measured using a sling psychrometer

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

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

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

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

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

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

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

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

Page No._____

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 12. 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. = 20.9 – [**vol%$_{dry}O_{2,\ exhaust}$**] = 20.9 - _____ = _____

G. = [**vol%$_{dry}O_{2,\ exhaust}$**] ÷ 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 percent's of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Condition 9.2. The fuel weight percent's of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_2$, exhaust) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same engine load used in the calculation.

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

[18 AAC 50.346(c)]

Section 13. ADEC Notification Form[12]

Crude Oil Topping Unit — **Stationary Source Name**

AQ0265TVP03 — **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

[12] Revised as of August 20, 2008.

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

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

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

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

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

Certify Report (Go to end of form.)

Section 2. Permit Deviations

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

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recording/Reporting/Compliance Certification

☐ Standard Conditions Not Included in the Permit

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

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Recordkeeping Failure

☐ Insignificant Emission Unit

☐ Stationary Source Wide

(b) Emission Unit Involved:

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

EU ID	EU Name	Permit Condition/ Potential Deviation

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

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

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

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

To Submit this Report:

Fax to: 907-451-2187

Or

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

If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 58.

Or

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

Or

Phone Notification: 907-451-5173

Phone notifications require a written follow-up report.

Or

Submission of information contained in this report can be made electronically at the following website:
https://myalaska.state.ak.us/dec/air/airtoolsweb/

If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]

Section 14. Emission Inventory Form

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

Mandatory information is highlighted. Make additional copies as needed.

Inventory start date:	
Inventory end date:	
Inventory Type:	

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

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

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

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

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

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

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

	Datum:

Certification:

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

Printed Name:_____Title_____Date _____

Signature:_____ Phone number_____

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

To Submit this report:

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

Or

4. Submission of information can be made via a full electronic batch submittal (XML files). This will require each data element to be tagged with XML (Extensible Markup Language) code before it can be uploaded to ADEC database.
   https://myalaska.state.ak.us/dec/air/airtoolsweb/EiXmlValidator.aspx

[18 AAC 50.346(b)(9)]