DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0311TVP03 Issue Date: Public Comment - September 09, 2021
Expiration Date: Five Years

The Alaska Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **Petro Star, Inc.**, for the operation of the **Petro Star Valdez Refinery (PSVR)**.

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 the effective version of 18 AAC 50 at permit issuance. All federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

All currently applicable stationary source-specific terms and conditions of Air Quality Control Minor Permit AQ0311MSS04 have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit AQ0311TVP02 expires.

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

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC ..... Alaska Administrative Code
ADEC ..... Alaska Department of Environmental Conservation
Administrator ..... EPA and the Department
AOS ..... Air Online Services
AS ..... Alaska Statutes
ASTM ..... American Society for Testing and Materials
BACT ..... best available control technology
bbl/yr ..... barrels per year
Btu ..... British thermal unit
CDX ..... Central Data Exchange
CEDRI ..... Compliance and Emissions Data Reporting Interface
CEMS ..... continuous emission monitoring system
CFR ..... Code of Federal Regulations
CI ..... compression ignition
The Act ..... Clean Air Act
CO ..... carbon monoxide
CO_2 ..... carbon dioxide
CO_2e ..... CO_2 equivalent
CPMS ..... continuous parameter monitoring system
dscf ..... dry standard cubic foot
dscm ..... dry standard cubic meter
EPA ..... US Environmental Protection Agency
EU ID ..... emissions unit identification number
gr./dscf ..... grain per dry standard cubic foot (1 pound = 7000 grains)
GHG ..... greenhouse gas
GPH ..... gallons per hour
HAGO ..... heavy atmospheric gas oil
HAP ..... Hazardous Air Pollutants [as defined in AS 46.14.990]
hp ..... horsepower
ICE ..... internal combustion engine
kW ..... kiloWatts
kPa ..... kilopascals
lb/hr ..... pound per hour
LAER ..... lowest achievable emission rate
LAGO ..... light atmospheric gas oil
LSR ..... light straight run
LTPD ..... long tons per day
MACT ..... maximum achievable control technology [as defined in 40 CFR 63]
mg ..... milligram
MMBtu/hr ..... million British thermal units per hour
MMscf ..... million standard cubic feet
MR&R ..... monitoring, recordkeeping, and reporting
NA ..... not applicable
NESHAP ..... National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
NOx ..... nitrogen oxides
NSPS ..... New Source Performance Standards [as contained in 40 CFR 60]
O & M ..... operation and maintenance
O_2 ..... oxygen
PAL ..... plantwide applicability limitation
PM_{10} ..... particulate matter less than or equal to a nominal ten microns in diameter
ppm ..... parts per million
ppmv, ppmvd ..... parts per million by volume on a dry basis
psia ..... pounds per square inch (absolute)
PSA ..... pressure swing adsorption
PSD ..... prevention of significant deterioration
PTE ..... potential to emit
RICE ..... reciprocating internal combustion engine
SIC. ..... Standard Industrial Classification
SO_2 ..... sulfur dioxide
SRU ..... sulfur recovery unit
tph ..... tons per hour
tpy ..... tons per year
ULSD ..... ultra-low sulfur diesel
VOC ..... volatile organic compound [as defined in 40 CFR 51.100(s)]
VOL ..... volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
vol% ..... volume percent
wt% ..... weight percent
$wt\%S_{fuel}$ ..... weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:		**Petro Star, Inc.** 3900 C Street, Suite 802 Anchorage, AK 99503-5966
Stationary Source Name:		**Petro Star Valdez Refinery**
Location:		61º 05′ 05" North; 146º 15′ 11" West
Physical Address:		Mile 2.5 Dayville Rd. Valdez, Alaska 99686
Owner:		**Petro Star, Inc.** 3900 C Street, Suite 802 Anchorage, AK 99503 - 5966
Operator:		Petro Star Valdez Refinery Mile 2.5 Dayville Rd. Valdez, Alaska 99686
Permittee's Responsible Official:		Michael Patterson, Vice President, Refining 3900 C Street, Suite 802 Anchorage, AK 99503-5966
Designated Agent:		Angela Speight, Senior V.P. & Chief Operating Officer 3900 C Street, Suite 802 Anchorage, AK 99503-5966
Stationary Source and Building Contact:		Jeff Rose, Refinery Manager Mile 2.5 Dayville Rd. Valdez, Alaska 99686 jefrose@petrostar.com
Fee Contact:		Lisa Lewis, Government Compliance Director 3900 C Street, Suite 802 Anchorage, AK 99503-5966 lvlewis@petrostar.com
Permit Contact:		Catherine Bollinger, Environmental Compliance Manager 3900 C Street, Suite 802 Anchorage, AK 99503-5966 cbollinger@petrostar.com
Process Description	SIC Code:	2911 - Petroleum Refining
	NAICS Code:	324110 – Petroleum Refineries

[18 AAC 50.040(j)(3) & 50.326(a)]
[40 CFR 71.5(c)(1) & (2)]

Section 2. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory

EU ID	Emissions Unit Name	Emissions Unit Description	Rating/Size	Installation or Construction Date
1	Direct Fired Crude Charge Heater	G.C. Broach Heater, Model No. H-201	153 MMBtu/hr	1999
3	Utility Boiler	ABCO 400 AHO Boiler, SN 8021-400	400 hp (16.8 MMBtu/hr)	1994 (refurbished after June 2010)
4	Crude Unit Emergency Generator	Caterpillar 500 Generator Set	559 kW (749 hp)	1992
6	T1100	Fixed Roof Non-ULSD Storage Tank	2,100,000 gallons	1992
7	T1102	Fixed Roof Non-ULSD Storage Tank	2,100,000 gallons	1992
8	T1101	Fixed Roof ULSD Storage Tank	2,100,000 gallons	1999
9	T1104	Fixed Roof ULSD Storage Tank	2,100,000 gallons	1999
10	T1105	Floating Roof DHT Feed Tank	1,260,000 gallons	1992
13	T1115	Floating Roof Swing Tank	840,000 gallons	1992
14	T1116	Floating Roof Return Oil Tank	840,000 gallons	1992
15	T1106	Floating Roof Crude Oil Tank	2,520,000 gallons	2001
16	Back-up Fire Pump Engine	Caterpillar Model 3406B DITA	460 hp	2001
17	Truck Loading Racks	Jet A	9,500,000 bbls/yr	1992
18	DHT Reactor Heater	Heat Recovery Corporation DHT Reactor Heater	28.0 MMBtu/hr	2010
19	DHT Splitter Reboiler	Heat Recovery Corporation DHT Splitter Reboiler	31.2 MMBtu/hr	2010
20	Hydrogen Plant Heater	Callidus Technology – Honeywell Hydrogen Plant Heater	31.0 MMBtu/hr	2010
21	Flare	John Zink LHLB	4.65 MMBtu/hr	2010
22	Sulfur Recovery Unit	Shell Oil Company SulFerox® Design	5.0 long tons/day	2010
23	Storage Tank - T20705	Fixed Roof Tank for ULSD	2,100,000 gallons	2010
24	Storage Tank - T20706	Fixed Roof Tank for ULSD	2,100,000 gallons	2010

EU ID	Emissions Unit Name	Emissions Unit Description	Rating/Size	Installation or Construction Date
25A	Control Building Boiler	Weil McLain Ultra Oil UO-5	0.18 MMBtu/hr	2010
25B	Control Building Boiler	Weil McLain Ultra Oil UO-5	0.18 MMBtu/hr	2010
26A	Administration Building Boiler	Weil McLain Ultra Oil BL-580-WF	1.2 MMBtu/hr	2010
26B	Administration Building Boiler	Weil McLain Ultra Oil BL-580-WF	1.2 MMBtu/hr	2010
27	Emergency Glycol Heater	Emergency Heater	5.5 MMBtu/hr	2010
28	Emergency Generator	Caterpillar ULSD Unit	851 kW (1141 hp)	2010
29	T1113	Wastewater Tank	10,730 bbls	1992
30	T1204	Skim Oil Holding Tank	119 bbls	2015

[18 AAC 50.326(a)]
[40 CFR 71.5(c)(3)]

Section 3. State Requirements

Visible Emissions Standard

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1, 3, 4, 16, 18 through 21, 27, and 28 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)(4), 50.055(a)(1), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

1.1. For EU IDs 1, 3, 4, 16, 18 through 20, 27, and 28, monitor, record and report in accordance with Conditions 2 through 4.

1.2. For EU ID 21, monitor, record and report in accordance with Condition 5.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)]

Visible Emissions Monitoring, Recordkeeping, and Reporting (MR&R)

Liquid Fuel-Burning Equipment

2. Visible Emissions Monitoring. When required by Condition 1.1, or in the event of replacement[1] during the permit term, the Permittee shall observe the exhaust of EU IDs 1, 3, 4, 16, 18 through 20, 27 and 28 for visible emissions using either the Method 9 Plan under Condition 2.4 or the Smoke/No-Smoke Plan under Condition 2.5.

2.1. The Permittee may change visible-emissions plans for an emissions unit at any time unless prohibited from doing so by Condition 2.6.

2.2. The Permittee may, for each unit, elect to continue the visible emissions monitoring schedule specified in Conditions 2.4.b through 2.4.e that remains in effect from a previous permit.

2.3. The Permittee shall observe the exhaust of EU IDs 1 and 16 as specified in Conditions 2.7 and 2.8.

2.4. **Method 9 Plan.** For all observations in this plan, observe the emissions unit exhaust following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.[2]

a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.6.c(ii), observe exhausts of EU IDs 3, 4, 18 through 20, 27 and 28 according to the following criteria:

(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.5.

[1] *"Replacement,"* as defined in 40 CFR 51.166(b)(32).
[2] Visible emissions observations are not required during emergency operations.

(ii) Except as provided in Condition 2.4.a(iii), for any of EU IDs 3, 4, 18 through 20, 27 and 28, observe exhaust within six months after the effective date of this permit.

(iii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[3] Except as provided in Condition 2.4.e, after the First Method 9 observation:

(A) For EU IDs 3, 4, 18 through 20, 27 and 28, continue with the monitoring schedule of the replaced units.

b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.4.a, perform observations at least once in each calendar month that an emissions unit operates.

c. Semiannual Method 9 Observations. After at least three monthly observations under Condition 2.4.b, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations:

(i) no later than seven months, but not earlier than five months, after the preceding observation, or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following seven months after the preceding observation.

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 2.4.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations:

(i) no later than 12 months, but not earlier than 10 months, after the preceding observation; or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following 14 months after the preceding observation

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.4.b, and continue monitoring in accordance with the Method 9 Plan.

[3] "*Fully operational*" means upon completion of all functionality checks and commissioning after unit installation. "*Installation*" is complete when the unit is ready for functionality checks to begin.

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

a. Initial Monitoring Frequency. Observe the emissions unit exhaust during each calendar day that an emissions unit operates for a minimum of 30 days.

b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 2.5.a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.

c. Smoke Observed. If visible emissions are observed, comply with Condition 2.6

2.6. **Corrective Actions Based on Smoke/No Smoke Observations**. If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 2.5, then the Permittee shall either begin the Method 9 Plan of Condition 2.4 or

a. initiate actions to eliminate visible emissions from the emissions unit exhaust within 24 hours of the observation;

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

c. after completing the actions required under Condition 2.6.a,

(i) conduct smoke/no smoke observations in accordance with Condition 2.5.

(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 2.5.a is completed; and

(B) continue as described in Condition 2.5.b; or

(ii) if the actions taken under Condition 2.6.a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 2.6.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 2.5.a.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)]

2.7. The Permittee shall perform visible emission readings on EU 1 no less than once every 12-consecutive months.

[Condition 28.1a, Minor Permit AQ0311MSS04, 9/29/2014]

2.8. Observe the exhaust of EU 16 for the presence or absence of visible emissions, excluding condensed water vapor. Observe the exhaust during each calendar day that EU 16 operates and is scheduled to operate for maintenance or operational readiness testing.

[Conditions 28.1c, Minor Permit AQ0311MSS04, 9/29/2014]

a. Smoke Observed. If smoke is observed after the engine reaches steady state operation, either conduct an 18-minute Method 9 observation or perform the corrective action required under Condition 2.8.b.

[Conditions 28.1c(i), Minor Permit AQ0311MSS04, 9/29/2014]

b. If visible emissions are present in the exhaust during an observation performed under Condition 2.8, then the Permittee shall either conduct an 18-minute Method 9 observation or

[Conditions 28.1d, Minor Permit AQ0311MSS04, 9/29/2014]

(i) initiate actions to eliminate smoke from the emissions unit within 24 hours of the observation;

(ii) keep a written record of the starting date, the completion date, and a description of the actions taken to reduce smoke; and

(iii) after completing the actions required under Condition 2.8.b(i),take smoke/no smoke observations in accordance with Condition 2.8.

[Conditions 28.1d(i)–(iii), Minor Permit AQ0311MSS04, 9/29/2014]

(A) If the actions taken under Condition 2.8.b(i) do not eliminate the smoke, or if subsequent smoke is observed under Condition 2.8, then observe the exhaust using 18-minute Method 9 observations unless the Department gives written approval to resume smoke/no smoke observations; after observing smoke and making observations under Method 9, the Permittee may at any time take corrective action that eliminates smoke and restart the smoke/no smoke observations under Condition 2.8.

[Conditions 28.1d(iii)(A), Minor Permit AQ0311MSS04, 9/29/2014]

3. Visible Emissions Recordkeeping. The Permittee shall keep records as follows:

3.1. For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions 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 rate (load or fuel consumption rate or best estimate, if unknown) on the sheet at the time opacity observations are initiated and completed;

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

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation 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.

(vi) For EU ID 1, if visible emission readings exceed the limits in Condition 1 while accepting waste heat from the CVEA turbine:

[Condition 28.1b, Minor Permit AQ0311MSS04, 9/29/2014]
[40 CFR 71.6(a)(3)(i) & (ii)]

(A) Determine and identify the emissions unit(s) that contribute to the excess emissions and retain records regarding the determinations;

(B) If PSVR is responsible for exceeding limits set out in Condition 1, then take corrective action.

[Condition 28.1b(i) & (ii), Minor Permit AQ0311MSS04, 9/29/2014]

b. To determine the six-consecutive-minute average opacity,

(i) divide the observations recorded on the record sheet into sets of 24 consecutive observations;

(ii) sets need not be consecutive in time and in no case shall two sets overlap;

(iii) for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; and

(iv) record the average opacity on the sheet.

c. Calculate and record the highest six-consecutive- and 18-consecutive-minute average opacities observed.

3.2. If using the Smoke/No Smoke Plan of Condition 2.5 or conducting smoke/no smoke observations under Condition 2.8, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

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

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

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

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

g. operating rate (load or fuel consumption rate or best estimate, if unknown).

3.3. The records required by Conditions 3.1 and 3.2 may be kept in electronic format.

[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), & 50.346(c)]
[40 CFR 71.6(a)(3)(ii) & (c)(6)]

4. Visible Emissions Reporting. The Permittee shall report as follows:

4.1. In the first operating report required by Condition 114 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.

4.2. Include in each operating report required under Condition 114 for the period covered by the report:

a. which visible-emissions plan of Condition 2 was used for each emissions unit; if more than one plan was used, give the time periods covered by each plan;

b. for all Method 9 Plan observations,

(i) copies of the observation results (i.e., opacity observations) for each emissions unit, 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-consecutive- and 18-consecutive-minute average opacities observed; and

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

c. for each emissions unit under the Smoke/No Smoke Plan and for the smoke/no smoke observations under Condition 2.8, the number of days that smoke/no smoke observations were made and which days, if any, that visible emissions were observed; and

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

4.3. Report under Condition 113:

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

(i) For EU ID 1, identify the emissions units that contribute to the excess emissions.

[Condition 28.2a(i), Minor Permit AQ0311MSS04, 9/29/2014]
[40 CFR 71.6(a)(3)(iii)]

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

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(iii)]

Flares

5. Visible Emissions MR&R. The Permittee shall monitor, record, and report as follows:

5.1. Observe flare events[4] on EU ID 21 for visible emissions following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations according to the following schedule:

a. Conduct ongoing visible emissions observations within 14 months of, but not earlier than three months after, the preceding flare event visible emissions observation.

b. If there are no flare events that meet the requirements of Condition 5.1.a, the Permittee shall observe the next daylight flare event.

5.2. Record the following information for observed flare event:

a. the flare EU ID number;

b. results of the Method 9 observations;

c. reason for flaring;

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

e. volume of gas flared.

[4] For purposes of this permit, a "*flare event*" is flaring of gas during daylight 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.

5.3. The records required by Condition 5.2 may be kept in electronic format.

5.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.

5.5. Include the following in the operating report required by Condition 114 for the period covered by the report

a. copies of the records required by Condition 5.2; and

b. if an annual flare event observation required by Condition 5.1.a has not been fulfilled for the year and/or monitoring of a flare event is postponed, an explanation of the reason the event was not monitored.

5.6. Report under Condition 113

a. whenever the opacity standard in Condition 1 is exceeded; or

b. the monitoring required under Condition 5.1, except as allowed under Condition 5.4.

5.7. If no flare events are monitored during a certification period, the Permittee shall certify compliance under Condition 115 with the visible emissions standard in Condition 1 based on reasonable inquiry.

[18 AAC 50.040(j)(4) & 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)–(iii)]

Particulate Matter (PM) Emissions Standard

6. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1, 3, 4, 16, 18 through 21, 27, and 28 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)(4), 50.055(b)(1), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

6.1. For EU IDs 1, 3, 18 through 20, and 27, monitor, record and report in accordance with Conditions 10 through 12.

6.2. For EU IDs 4, 16, and 28, monitor, record and report in accordance with Conditions 7 through 9.

6.3. For EU ID 21, the Permittee shall comply with Condition 5.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)]

Particulate Matter MR&R

Liquid Fuel-Burning Engines

7. Particulate Matter Monitoring. The Permittee shall conduct source tests on EU IDs 4, 16, and 28, to determine the concentration of PM in the exhaust of each emissions unit as follows:

7.1. If the result of any Method 9 observation conducted under Condition 2.4 for any of EU IDs 4, 16, and 28 is greater than the criteria of Condition 7.2.a or Condition 7.2.b, the Permittee shall, within six months of that Method 9 observation, either

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 7.2; or

b. except as exempted under Condition 7.4, conduct a PM source test according to requirements set out in Section 6.

7.2. Take corrective action or conduct a PM source test, in accordance with Condition 7.1, if any Method 9 observation under Condition 2.4 results in an 18-minute average opacity greater than

a. 20 percent for an emissions unit with an exhaust stack diameter that is equal to or greater than 18 inches; or

b. 15 percent for an emissions unit with an exhaust stack diameter that is less than 18 inches, unless the Department has waived this requirement in writing.

7.3. During each one-hour PM source test run under Condition 7.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

7.4. The PM source test requirements in Condition 7.1.b are waived for an emissions unit if:

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

b. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.4) conducted thereafter within a six-month period, show visible emissions less than the threshold in Condition 7.2.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)]

8. Particulate Matter Recordkeeping. The Permittee shall comply with the following:

8.1. Keep records of the results of any source test and visible emissions observations conducted under Condition 7.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(ii)]

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

9.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 7.2.a or 7.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 7.2.

9.2. In each operating report under Condition 114, include:

a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 7; and

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

9.3. Report in accordance with Condition 113:

a. anytime the results a PM source test exceed the PM emissions standard in Condition 6; or

b. if the requirements under Condition 7.1 were triggered and the Permittee did not comply on time with either Condition 7.1.a or 7.1.b. Report the deviation within 24 hours of the date compliance with Condition 7.1 was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(iii)]

Liquid Fuel-Burning Boilers and Heaters

10. Particulate Matter Monitoring. The Permittee shall conduct source tests on EU IDs 1, 3, 18 through 20, and 27 to determine the concentration of PM in the exhaust of each emissions units as follows:

10.1. If the result of any Method 9 observation conducted under Condition 2.4 for any of EU IDs 1, 3, 18 through 20, and 27 results in an 18-minute average opacity greater than 20 percent, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 CFR 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than an 18-minute average opacity of 20 percent; or

b. except as exempted under Condition 10.3, conduct a PM source test according to the requirements in Section 6.

10.2. During each one-hour PM source test run, under Condition 10.1, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

10.3. The PM source test requirement in Condition 10.1 is waived for an emissions unit if:

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

b. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.4) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 10.1.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(i)]

11. Particulate Matter Recordkeeping. The Permittee shall keep records of the results of any source test and visible emissions observations conducted under Condition 10.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(ii)]

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

12.1. Notify the Department of any Method 9 observation results that are greater than the threshold of Condition 10.1 within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than the threshold in Condition 10.1.

12.2. In each operating report required by Condition 114, include:

a. a summary of the results of any source test and visible emissions observations conducted under Condition 10; and

b. copies of any visible emissions observation results greater than the threshold in Condition 10.1, if they were not already submitted.

12.3. Report in accordance with Condition 113, any time the results of a source test exceed the PM emission standard in Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)(iii)]

Sulfur Compound Emission Standards

13. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions from EU IDs 1, 3, 4, 16, 18 through 21, 27, and 28 to exceed the following:

[18 AAC 50.040(j)(4), 50.055(d), & 50.326(j)(3)]
[40 CFR 71.6(a)(1)]

13.1. a sulfur dioxide concentration, averaged over three hours, equal to whichever of the following is applicable:

a. For equipment burning only fuel gas[5], the concentration of uncontrolled emissions that would result from burning fuel gas containing 230 mg/dscm hydrogen sulfide (162 ppm H_2S);

[18 AAC 50.055(d)(3)(A)]

b. For fuel-burning equipment that does not burn fuel gas, 500 ppm;

[18 AAC 50.055(d)(3)(B)]

(i) The Permittee shall ensure compliance by limiting the sulfur content of diesel fuel to 0.25% by weight.

[Condition 30.1b(i), Minor Permit AQ0311MSS04, 9/29/2014]

c. For fuel-burning equipment that burns a combination of fuel gas and other fuels, a concentration based on the allowable emissions in Conditions 13.1.a and 13.1.b, prorated by the proportion of fuel gas and other fuels to the total fuel burned in the equipment.

[18 AAC 50.055(d)(3)(C)]

Sulfur Compound MR&R

Diesel Fuel

13.2. For diesel fuel, conduct monthly fuel sulfur tests using appropriate sulfur analysis test methods listed in the latest version of ASTM D396.

[Condition 30.2a(i), Minor Permit AQ0311MSS04, 9/29/2014]
[40 CFR 71.6(a)(3)(i)]

a. The Permittee shall report as follows:

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(iii)]

(i) Include in the operating report required by Condition 114:

(A) The sulfur content analysis of diesel fuel,

(B) List the name of the supplier, and

(C) Report any change in the type of fuel, test method, or analysis performed.

[Condition 30.3a, Minor Permit AQ0311MSS04, 9/29/2014]
[40 CFR 71.6(a)(3)(iii)]

(ii) Report in accordance with Condition 113 if the sulfur content of diesel exceeds the limit in Condition 13.1.b(i).

[40 CFR 71.6(c)(6)]

[5] For purposes of this permit, fuel gas is defined as SRU fuel gas, crude heater fuel gas, PSA (Pressure Swing Adsorption) purge gas, and/or propane gas.

Liquid Fuel

13.3. For liquid fuel other than diesel, the Permittee shall comply with the following:

a. Test the sulfur content of the fuel using an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1) at least once during each month the emissions unit operates.

b. If the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 percent sulfur by weight ($wt\%S_{fuel}$), the Permittee shall calculate SO_2 emissions in ppm using either the SO_2 material balance calculation in Section 12 or Method 19 of 40 CFR 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

c. The Permittee shall report as follows:

(i) If SO_2 emissions calculated under Condition 13.3.b exceed 500 ppm, the Permittee shall report in accordance with Condition 113. When reporting under this condition, include the calculation under Condition 13.3.b.

(ii) The Permittee shall include in the operating report required by Condition 114 for each month covered by the report:

(A) the results of all fuel sulfur analyses conducted under Condition 13.3.a and documentation of the method(s) used to complete the analyses; and

(B) for any fuel with a sulfur content greater than 0.75 $wt\%S_{fuel}$, the SO_2 emissions in ppm calculated under Condition 13.3.b.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(3)]

Fuel Gas

13.4. **Monitoring, Recordkeeping, and Reporting.** For EU IDs 18 through 21, **t**he Permittee shall monitor, record, and report as follows when using fuel gas.

a. Monitor according to Condition 42.

b. Keep records according to Condition 43.

c. Report in accordance with Condition 113 whenever the fuel combusted causes sulfur compound emissions to exceed the applicable standard of Condition 13.1.

[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(i)–(iii)]

EU ID 1

13.5. **Monitoring, Recordkeeping, and Reporting.** For EU ID 1, the Permittee shall monitor, record, and report according to Conditions 13.5.a through 13.5.f, 36, and 37.

[Condition 30.2a(ii) and 30.3b, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(i)–(iii)]

a. The Permittee shall install, calibrate, operate, and maintain, a continuous emission monitoring system to measure and record the concentration of sulfur dioxide (SO_2) of the exhaust and the exhaust flow rate of EU ID 1, as stipulated in Conditions 13.5.a(i) and 17.

[Condition 10, Minor Permit AQ0311MSS04, 9/29/2014]

(i) The system shall be installed and calibrated according to 40 CFR Part 60, Appendix B, Performance Specification 2.

[Condition 10.1, Minor Permit AQ0311MSS04, 9/29/2014]

b. The Permittee shall keep records of the sulfur dioxide content in the exhaust of EU ID 1, for each month as 3-hour ppm averages. Include the maximum, minimum, and average 3-hour ppm averages (do not include data for when the crude heater is not in operation).

[40 CFR 71.6(c)(6)]

c. The Permittee shall install, calibrate, conduct applicable continuous monitoring system performance tests listed in 40 CFR 60, Appendix B, and certify test results; operate; and maintain air contaminant emissions and process monitoring equipment on the sources as described herein and in documents provided by the Permittee, listed under Section 14. The Permittee shall submit monitoring equipment siting, operation, and maintenance plans and procedures for approval by the Department 90 days prior to installing a new or modified system.

[Condition 32, Minor Permit AQ0311MSS04, 9/29/2014]

d. For continuous emission monitoring systems, the Permittee shall comply with each applicable monitoring system requirement, as listed in 40 CFR 60.13, 60.19, the applicable 40 CFR 60 subpart , 40 CFR 60, Appendix F, and the *EPA Quality Assurance Handbook For Air Pollution Measurements*, EPA/600 R-94/038b. The Permittee shall attach to the Facility Operating Report required by Condition 114, a copy of each quarterly continuous emission monitoring system data assessment report for quality assurance procedures conducted in accordance with 40 CFR 60, Appendix F.

[Condition 33, Minor Permit AQ0311MSS04, 9/29/2014]

e. The Permittee shall keep records of required monitoring data and support information for at least five years after the date of the collection; support information includes calibration and maintenance records and original strip-chart recordings for continuous monitoring instrumentation.

[Condition 34, Minor Permit AQ0311MSS04, 9/29/2014]

f. The Permittee shall report as follows:

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(iii)]

(i) Report in the operating report required by Condition 114, the sulfur dioxide content in the EU ID 1 exhaust for each month as 3-hr ppm averages. Include the maximum, minimum, and average 3-hr ppm averages (do not include data for when the crude heater is not in operation).

[Condition 13.2, Minor Permit AQ0311MSS04, 9/29/2014]

(ii) Report as excess emissions, in accordance with Condition 113, whenever the fuel combusted causes sulfur compound emissions to exceed any applicable standard of Condition 13.

[40 CFR 71.6(c)(6)]

Preconstruction Permit[6] Requirements

14. Crude Oil Throughput Limit. The Permittee shall limit crude oil throughput to no more than an annual average of 70,000 bbl/day.

[Condition 16, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

14.1. The Permittee shall calculate and record the rolling 12-month annual average crude oil throughput (bbl/day).

[40 CFR 71.6(a)(3)(i) & (ii) & 71.6(c)(6)]

14.2. The Permittee shall report the crude oil throughputs calculated under Condition 14.1 in the operating report required by Condition 114, for each month covered by the report.

14.3. The Permittee shall report as required under Condition 113 if the crude oil throughput for any consecutive 12-month period exceeds the limit in Condition 14.

[40 CFR 71.6(a)(3)(iii) & 71.6(c)(6)]

15. Storage Tank Throughput Limits. The Permittee shall comply with the following:

[6] *Preconstruction Permit* refers to federal PSD permits, state-issued permits-to-operate issued on or before January 17, 1997 (these permits cover both construction and operations), construction permits issued on or after January 18, 1997, and minor permits issued on or after October 1, 2004.

15.1. The Permittee shall limit total product throughput for EU IDs 6 through 10 to no more than 7,000,000 bbls per consecutive 12-month period.

15.2. The Permittee shall limit total crude oil throughput for EU IDs 13 and 15 to no more than 25,550,000 bbls per consecutive 12-month period.

15.3. The Permittee shall limit total return oil throughput for EU ID 14 to no more than 18,650,000 bbls per consecutive 12-month period.

[Conditions 17 through 19, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

15.4. The Permittee shall keep records of throughput as barrels per month for each of EU IDs 6–10 and 13–15 and calculate and record the rolling 12-month total throughput for each of EU IDs 6–10 and 13–15.

[40 CFR 71.6(a)(3)(i) & (ii) & 71.6(c)(6)]

15.5. For each of EU IDs 6 through 10 and 13 through 15, the Permittee shall report the throughput volume as barrels/month and the rolling 12-month total throughput for each month of the reporting period in the operating report required by Condition 114.

[Condition 13.1, Minor Permit AQ0311MSS04, 9/29/2014]

15.6. The Permittee shall report under Condition 113 if the calculated throughput for any consecutive 12-month period exceeds any of the limits in Conditions 15.1 through 15.3.

[40 CFR 71.6(a)(3)(iii) & 71.6(c)(6)]

16. The Permittee shall have instructions on the proper operation of EUs 1, 3, 4, 6 through 10, 13, and 14 listed in Table A of this permit available at any control monitor or in any control room for the equipment or at another location readily accessible to operators of the equipment and to any authorized representative of the Department.

[Condition 14, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

17. The Permittee shall install, calibrate, operate, and maintain a system for continuously monitoring and recording the fuel gas rate to EU ID 1 with an accuracy of + or - 5%.

[Condition 11, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(i)]

18. The Permittee shall install and maintain a flow meter in the fuel supply line to indicate, in gallons per hour, the amount of liquid fuel supplied to EU IDs 1 and 3 with an accuracy of + or - 5%.

[Condition 12, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(i)]

Ambient Air Quality Protection Requirements

19. The Permittee shall comply with the following requirements for ambient air quality protection:

19.1. Ambient air quality compliance for facility operation is demonstrated at the facility fence-line.

[Condition 22, Minor Permit AQ0311MSS04, 9/29/2014]

19.2. The Permittee shall not interfere with the attainment or maintenance of the Ambient Air Quality Standards listed in 18 AAC 50.010, and shall not cause or contribute to a violation of the maximum allowable ambient concentrations (the PSD increments) listed in 18 AAC 50.020 as follows:

[Condition 23, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

a. Except as provided for in Condition 19.2.b, construct and operate the facility in accordance with this permit and the applications for permit AQ0311MSS03, AQ0311MSS04 and permit 311CP03;

b. Notify the Department prior to making any change at the facility that deviates from Section 4 of permit AQ0311MSS04 and the applications for permit AQ0311MSS03, AQ0311MSS04 and permit 311CP03, such as changes in equipment size, configuration, or location.

[Conditions 23.1 and 23.2, Minor Permit AQ0311MSS04, 9/29/2014]

(i) Ask the Department if proposed change warrants additional ambient impact assessment modeling;

(ii) Within 60 days upon receiving written Department notice that modeling is warranted, prepare and submit to the Department an ambient impact assessment for the specified air contaminant and averaging period;

(iii) The Permittee shall not make the change until the Department concurs the change will not interfere with attainment or maintenance of ambient standards and increments.

[Conditions 23.2a through 23.2c, Minor Permit AQ0311MSS04, 9/29/2014]

19.3. The Permittee shall limit fuel sulfur content to no more than 0.25 percent by weight for diesel fuel burned in EU IDs 3, 4, and 16.

[Condition 23.3, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(1)]

a. The Permittee shall monitor, record, and report in accordance with Conditions 13.2 and 13.2.a(i).

b. If the fuel sulfur content exceeds 0.25 percent by weight, the Permittee shall report in accordance with Condition 113.

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)]

19.4. To protect the annual average nitrogen dioxide (NO_2) ambient air quality standard, the Permittee shall operate the stationary source as described below:

[Condition 5, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

a. For all fuel-burning emission units other than EUs 16, 25A, 25B, 26A, 26B and 27, maintain vertical, uncapped exhaust stacks. For purposes of this condition, flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plumes shall not be considered as a rain cap.

[Condition 5.1, Minor Permit AQ0311MSS04, 9/29/2014]

Owner Requested Limits to Avoid Prevention of Significant Deterioration (PSD) Major Classification

20. NO_X PSD Major Avoidance, EU IDs 1, 3, 4, and 16. In order to prevent the stationary source from being classified as PSD major for NOx, the Permittee shall comply with the following:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

20.1. Do not burn heavy atmospheric gas oil (HAGO) in EU IDs 1, 3, 4, and 16.

[Condition 24, Minor Permit AQ0311MSS04, 9/29/2014]

20.2. For EU ID 1:

a. The Permittee shall limit emissions to no more than 79 tons of NO_X in any 12-consecutive month period;

b. The Permittee is authorized to burn diesel fuel, light straight run (LSR), and fuel gas with the following restriction:

[Conditions 25.1 and 25.2, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

(i) Diesel Fuel - burn no more than 166,000 gallons in any 12-consecutive month period (equivalent to 0.83 tons of NO_X);

[Condition 25.2a, Minor Permit AQ0311MSS04, 9/29/2014]

20.3. **Monitoring, Recordkeeping and Reporting Requirements for EU ID 1.**

a. The Permittee shall monitor and record, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(i) & (ii)]

(i) Measure and record the time and duration for which PSVR accepts waste heat from the CVEA Cogeneration Project, and the quantity of each fuel burned in EU ID 1 in gallons of liquid fuels and scf of fuel gas. Calculate and record the monthly and 12-month rolling total fuel consumption for each type of fuel burned.

(ii) Measure and record the time and duration for which PSVR does not accept waste heat from the CVEA Cogeneration Project, and the quantity of each fuel burned in EU ID 1 in gallons of liquid fuels and scf of fuel gas. Calculate and record the monthly and 12-month rolling total fuel consumption for each type of fuel burned.

(iii) Calculate and record the NO_X emissions for each calendar month based on the fuel consumption measured in Conditions 20.3.a(i) and 20.3.a(ii) and the specific emission factors as follows:

[Conditions 25.3a through 25.3c, Minor Permit AQ0311MSS04, 9/29/2014]

(A) For LSR and fuel gas consumption, use the most recent Department approved site-specific emission factors developed from emission source tests conducted as set out in Condition 20.4.a, dependent upon operation of the waste heat recovery system; and

(B) For diesel fuel use an AP-42 emission factor of 10 lb of NO_X per 1,000 gallons of fuel;

[Conditions 25.3c(i) and 25.3c(ii), Minor Permit AQ0311MSS04, 9/29/2014]

(iv) Calculate and record the 12-month rolling total NO_X emissions by summing monthly emissions from EU ID 1 using each fuel.

[Condition 25.3d, Minor Permit AQ0311MSS04, 9/29/2014]

b. The Permittee shall report, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]

(i) Report the following in the operating report required in Condition 114:

(A) The 12-month rolling total NO_X emissions from EU ID 1; and

(B) The 12-month rolling total diesel consumption for EU ID 1.

[Conditions 25.4a and 25.4b, Minor Permit AQ0311MSS04, 9/29/2014]

(C) The 12-month rolling total LSR consumption for EU ID 1.

(D) The 12-month rolling total fuel gas consumption for EU ID 1.

[40 CFR 71.6(c)(6)]

(ii) Report excess emissions in accordance with Condition 113 if fuel consumption and NO_X emissions are greater than those specified in Condition 20.2.

[Condition 25.4c, Minor Permit AQ0311MSS04, 9/29/2014]

20.4. **Performance Test Requirements.** The Permittee shall conduct periodic performance tests on EU ID 1, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]

a. The Permittee shall conduct three performance tests at the highest operational level on EU ID 1. Conduct one set with waste heat burning fuel gas, one set without waste heat burning the maximum amount LSR, and one set without waste heat burning fuel gas. Each set of source tests shall be conducted as follows:

[Condition 25.5, Minor Permit AQ0311MSS04, 9/29/2014]

(vi) Test Plan – submit a plan as set out in Condition 105;

(vii) Test Methods – perform all tests in accordance with procedures outlined in 40 CFR 60, Appendix A. Use Method 7E to determine NO_X emission concentrations. Use Methods 1 through 4 or Methods 3A and 19 to determine exhaust parameters for calculating NO_X emission rates;

(viii) Operating Conditions – When performing a test while accepting waste heat, simultaneously measure the NO_X emission rates and concentrations at the inlet and outlet of the source, except as authorized by the Department's emission source test observer or an alternative source test plan;

(ix) Special Requirements:

[Conditions 25.5a through 25.5d, Minor Permit AQ0311MSS04, 9/29/2014]

(A) Measure and record consumption of LSR and fuel gas during each test; and

(B) When conducting tests during waste heat recovery, measure and record the power production, fuel consumption, and turbine speed of the CVEA turbine(s).

[Conditions 25.5d(i) and 25.5d(ii), Minor Permit AQ0311MSS04, 9/29/2014]

(x) Submit a test report of results as set out in Condition 107.

(xi) Frequency – After the initial source tests, perform additional tests (subsequent tests need only be conducted for the worst-case emissions scenario) that comply with Condition 20.4.a no less than:

[Conditions 25.5e and 25.5f, Minor Permit AQ0311MSS04, 9/29/2014]

(A) Once every 3 years, except as set out below;

(B) Once every 12 months, if total NO_X emissions calculated in Condition 20.3.a(iv) are greater than or equal to 71 (90% of 79) tons per 12-month rolling period for any time period in the year.

[Conditions 25.5f(i) and 25.5f(ii), Minor Permit AQ0311MSS04, 9/29/2014]

20.5. For EU ID 3:

a. The Permittee shall limit emissions to no more than 2.7 tons of NO_X in any 12 consecutive month period.

b. The Permittee is authorized to burn diesel fuel with the following restriction:

[Conditions 26.1 and 26.2, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

(i) burn no more than 221,000 gallons of diesel fuel in any 12 consecutive month period (equivalent to 2.7 tons of NO_X).

[Condition 26.2a, Minor Permit AQ0311MSS04, 9/29/2014]

20.6. **Monitoring, Recordkeeping and Reporting Requirements for EU ID 3.**

a. The Permittee shall monitor and record, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(i) & (ii)]

(i) Measure and record the gallons of fuel burned in EU ID 3. Calculate and record the monthly and 12-month rolling total fuel consumption for EU ID 3;

(ii) Calculate and record NO_X emissions from EU ID 3 for each calendar month based on the fuel consumption measured in Condition 20.6.a(i) and an AP-42 emission factor of 24 lb of NO_X per 1,000 gallons of fuel; and

(iii) Calculate and record the 12-month rolling total NO_X emissions by summing the monthly emissions from EU ID 3.

[Conditions 26.3a through 26.3c, Minor Permit AQ0311MSS04, 9/29/2014]

b. The Permittee shall report, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]

(i) Report the following in the operating report required in Condition 114:

(A) The 12-month rolling total NO_X emissions from EU ID 3; and

(B) The 12-month rolling total diesel consumption for EU ID 3;

(ii) Report as excess emissions in accordance with Condition 113 if fuel consumption and NO_X emissions are greater than those specified in Condition 20.5 of this permit.

[Conditions 26.4a through 26.4c, Minor Permit AQ0311MSS04, 9/29/2014]

20.7. For EU IDs 4 and 16:

a. The Permittee shall limit emissions to no more than a cumulative total of 6.3 tons of NO_X in any 12 consecutive month period.

b. The Permittee is authorized to burn diesel fuel with the following restrictions:

[Conditions 27.1 and 27.2, Minor Permit AQ0311MSS04, 9/29/2014]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(1)]

(i) EU ID 4 - operate EU 4 no more than 500 hours in any 12 consecutive month period (equivalent to 4.3 tons of NO_X); and

(ii) EU ID 16 - operate EU 16 no more than 500 hours in any 12 consecutive month period (equivalent to 2.0 tons of NO_X).

[Conditions 27.2a and 27.2b, Minor Permit AQ0311MSS04, 9/29/2014]

20.8. **Monitoring, Recordkeeping and Reporting Requirements for EU IDs 4 and 16.**

a. The Permittee shall monitor and record, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(i) & (ii)]

(i) Install, operate, and maintain a non-resettable hour meter on each of EUs 4 and 16. Calculate and record the monthly and 12-month rolling total hours of operation for each emissions unit.

(ii) Calculate and record NO_X emissions for each emissions unit for each calendar month based on the hours of operation measured in Condition 20.8.a(i), the maximum rated fuel consumption for each engine (gal/hr), and

[Conditions 27.3a and 27.3b, Minor Permit AQ0311MSS04, 9/29/2014]

(A) AP-42, Table 3.4-1 emission factor of 3.2 lb of NO_X per MMBtu for EU ID 4;

(B) AP-42, Table 3.3-1 emission factor of 4.41 lb of NO_X per MMBtu for EU ID 16; and

[Conditions 27.3b(i) and 27.3b(ii), Minor Permit AQ0311MSS04, 9/29/2014]

(iii) Calculate and record the cumulative 12-month rolling total NO_X emissions by summing monthly emissions from each emissions unit.

[Condition 27.3c, Minor Permit AQ0311MSS04, 9/29/2014]

b. The Permittee shall report, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]

(i) Report the following in the operating report required in Condition 114:

(A) The 12-month rolling total NO_X emissions from EUs 4 and 16; and

(B) The 12-month rolling total hours of operation for each of EUs 4 and 16.

[Conditions 27.4a and 27.4b, Minor Permit AQ0311MSS04, 9/29/2014]

(ii) Report as excess emissions in accordance with Condition 113 if hours of operation and NO_X emissions are greater than those specified in Condition 20.7 of this permit.

[Condition 27.4c, Minor Permit AQ0311MSS04, 9/29/2014]

Insignificant Emissions Units

21. For EU IDs 25A, 25B, 26A, and 26B listed in Table A and for emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)–(i) that are not listed in this permit, the following apply:

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

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

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

[18 AAC 50.055(b)(1)]

21.3. **Sulfur Standard.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from an industrial process or fuel-burning equipment, to exceed 500 ppm averaged over three hours, except as provided in Condition 21.3.a.

[18 AAC 50.055(c)]

a. Emissions from fuel-burning equipment may not exceed the limits in Condition 13.1.

[18 AAC 50.055(d)]

21.4. **General MR&R for Insignificant Emissions Units.** The Permittee shall comply with the following:

a. Submit the compliance certifications of Condition 115 based on reasonable inquiry;

b. Comply with the requirements of Condition 96; and

c. Report in the operating report required by Condition 114 if an emissions 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.

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 21.1, 21.2, and 21.3.

[18 AAC 50.040(j)(3), 50.326(j)(3), & 50.346(b)(4)]
[40 CFR 71.6(a)(1) & (3)]

Section 4. Federal Requirements

40 CFR Part 60 New Source Performance Standards (NSPS)

Subpart A – General Provisions

22. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[7] or existing facility[8] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator[9] written notification or, if acceptable to both the Administrator and the Permittee, electronic notification, as follows:

[18 AAC 50.035 & 50.040(a)(1)]
[40 CFR 60.7(a) & 60.15(d), Subpart A]

22.1. A notification of the date construction or reconstruction of an affected facility is commenced postmarked no later than 30 days after such date;

[40 CFR 60.7(a)(1), Subpart A]

22.2. A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date;

[40 CFR 60.7(a)(3), Subpart A]

22.3. A notification of 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 CFR 60.14(e). This notice shall be 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 CFR 60.7(a)(4), Subpart A]

22.4. A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date;

[40 CFR 60.7(a)(5), Subpart A]

[7] Affected facility means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.

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

[9] The Department defines "Administrator" in 18 AAC 50.990(2).

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

[40 CFR 60.15(d), Subpart A]

a. name and address of the owner or operator,

b. the location of the existing facility,

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

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

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

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

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

23. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of EU IDs 1, 3, 6–10, 13–15, and 18–24, any malfunction of the air pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1, 3, 6–10, 13–15, and 18–24 is inoperative.

[18 AAC 50.040(a)(1)]
[40 CFR 60.7(b), Subpart A]

24. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit excess emissions and monitoring systems performance (EEMSP)[10] report (excess emissions are defined in Conditions 35 and 38) and//or summary report form (see Condition 25) to the Department and to EPA 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 CFR 60.7(c), Subpart A]

[10] The federal EEMSP report is not the same as the state excess emission report required by Condition 113.

24.1. The magnitude of excess emissions computed in accordance with Condition 31.6, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

[40 CFR 60.7(c)(1), Subpart A]

24.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 1 and 18 – 21; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

[40 CFR 60.7(c)(2), Subpart A]

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

[40 CFR 60.7(c)(3), Subpart A]

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

[40 CFR 60.7(c)(4), Subpart A]

25. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 CFR 60.7 (see Section 14) for each pollutant monitored for EU IDs 1 and 18 – 21. The report shall be submitted semiannually, postmarked by the 30th day following the end of each six-month period, except when more frequent reporting is specifically required.

[18 AAC 50.040(a)(1)]
[40 CFR 60.7(c) & (d), Subpart A]

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

[40 CFR 60.7(d)(1), Subpart A]

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

[40 CFR 60.7(d)(2), Subpart A]

26. NSPS Subpart A Recordkeeping. Any owner or operator subject to the provisions of 40 CFR part 60 shall maintain 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 this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as described in 40 CFR 60.7(f)(1) through (3).

[18 AAC 50.040(a)(1)]
[40 CFR 60.7(f), Subpart A]

27. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according Section 6 and as required in this condition on any affected facility.

[18 AAC 50.040(a)(1)]

27.1. Except as specified in 40 CFR 60.8(a)(1), (a)(2), (a)(3), and (a)(4), at such times specified by 40 CFR part 60 and at such other times as may be required by the Administrator, the Permittee shall conduct source tests and furnish the Department and EPA with a written report of the results of such source test(s).

[40 CFR 60.8(a), Subpart A]

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

[40 CFR 60.8(b), Subpart A]

28. NSPS Subpart A Good Air Pollution Control Practice. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate EU IDs 1, 3, 6–10, 13–15, and 18–24 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1, 3, 6–10, 13–15, and 18–24.

[18 AAC 50.040(a)(1)]
[40 CFR 60.11(d), Subpart A]

29. 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 34, 35, 38, 45, 50, 64, and 65 nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 1, 3, 6–10, 13–15, and 18–24 would have been in compliance with applicable requirements of 40 CFR Part 60 if the appropriate performance or compliance test or procedure had been performed.

[18 AAC 50.040(a)(1)]
[40 CFR 60.11(g), Subpart A]

30. NSPS Subpart A Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Conditions 34, 35, 38, 45, 50, 64, and 65. 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 CFR 60.12, Subpart A]

31. NSPS Subpart A Monitoring. For a continuous monitoring system (CMS) required under Conditions 36 and 42, the Permittee shall comply as follows:

[18 AAC 50.040(a)(1)]
[40 CFR 60.13(a) Subpart A]

31.1. All CMS and monitoring devices shall be installed and operational prior to a performance test conducted under Condition 27. Verification of operational status shall, as a minimum, include completion of manufacturer's written requirements or recommendations for installation, operation, and calibration of device.

[40 CFR 60.13(b), Subpart A]

31.2. Conduct a performance evaluation of the continuous emission monitoring system (CEMS) during any performance test required under Condition 27 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR part 60, and conduct CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

[40 CFR 60.13(c), Subpart A]

a. The Permittee shall furnish the EPA 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 CFR 60.13(c)(2), Subpart A]

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

[40 CFR 60.13(d)(1), Subpart A]

31.4. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 31.2, keep all CMS's in operation continuously and as follows:

[40 CFR 60.13(e), Subpart A]

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

[40 CFR 60.13(e)(2), Subpart A]

31.5. Install all continuous monitoring systems or monitoring devices 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 CFR part 60 shall be used.

[40 CFR 60.13(f), Subpart A]

31.6. Reduce data in accordance with 40 CFR 60.13(h). Data reduction requirements include the following:

[40 CFR 60.13(h), Subpart A]

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

b. All excess emissions shall be converted into units of the standard used in Conditions 35 and 38. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the condition.

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

31.7. Provide the Department a copy of each EPA alternative monitoring approval or relative accuracy test audit approval issued under 40 CFR 60.13(i) or (j).

[40 CFR 71.6(a)(3)(iii) & 71.6(c)(6)]

Subpart Dc – Small Industrial Steam Generating Units

32. NSPS Subpart Dc Applicability. The Permittee shall comply with the applicable requirements for each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

[18 AAC 50.040(a)(2)(D) & (j)(4) & 50.326(j)]
[40 CFR 60.48c(a), Subpart Dc]

33. NSPS Subpart Dc Fuel Consumption. For EU ID 3, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(D) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]

33.1. Except as provided under Condition 33.2, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

[40 CFR 60.48c(g)(1), Subpart Dc]

33.2. As an alternative to meeting the requirements of Condition 33.1, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the requirements in Condition 34 to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

[40 CFR 60.48c(g)(3), Subpart Dc]

34. NSPS Subpart Dc Sulfur Standards. For EU ID 3, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(D) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]

34.1. No owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO_2 in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur.

[40 CFR 60.42c(d), Subpart Dc]

34.2. Except as provided in Condition 34.4, compliance with the fuel oil sulfur limits and emission limits of Condition 34.1 shall be determined on a 30-day rolling average basis.

[40 CFR 60.42c(g), Subpart Dc]

34.3. The SO_2 emission limits and fuel oil sulfur limits under Condition 34.1 apply at all times, including periods of startup, shutdown, and malfunction.

[40 CFR 60.42c(i), Subpart Dc]

34.4. **Monitoring.** Compliance with the emission limits or fuel oil sulfur limits under Condition 34.1 may be determined based on a certification from the fuel supplier, as described under Condition 34.5.d.

[18 AAC 50.040(a)(2)(D) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]
[40 CFR 60.42c(h) & 60.44c(h), Subpart Dc]

34.5. **Recordkeeping and Reporting.**

[18 AAC 50.040(a)(2)(D) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii) & (iii)]

a. All records required under Conditions 33 and 34.5 shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

[40 CFR 60.48c(i), Subpart Dc]

b. The owner or operator of each affected facility subject to SO_2 emission limits or fuel oil sulfur limits under Condition 34.1 shall submit reports to EPA and the Department.

[40 CFR 60.48c(d), Subpart Dc]

c. The owner or operator of each affected facility subject to SO_2 emission limits or fuel oil sulfur limits under Condition 34.1 shall keep records and submit reports as required under Condition 34.5.b, including the following information:

[40 CFR 60.48c(e), Subpart Dc]

(i) Calendar dates covered in the reporting period.

(ii) Records of fuel supplier certification as described under Condition 34.5.d.

(iii) A certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[40 CFR 60.48c(e)(1) & (11), Subpart Dc]

d. Fuel supplier certification shall include the following information:

[40 CFR 60.48c(f), Subpart Dc]

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.

[40 CFR 60.48c(f)(1)(i)–(iii), Subpart Dc]

e. The reporting period for the reports required under NSPS Subpart Dc is each six-month period. All reports shall be submitted to EPA and the Department and shall be postmarked by the 30th day following the end of the reporting period.

[40 CFR 60.48c(j), Subpart Dc]

Subpart J - Petroleum Refineries

35. NSPS Subpart J SO_2 Emission Standards. The Permittee shall not burn in EU ID 1 any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf).

[18 AAC 50.040(a)(2)(J) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.104(a)(1), Subpart J]

36. NSPS Subpart J Monitoring and Recordkeeping. The Permittee shall either continuously monitor SO_2 emissions into the atmosphere from EU ID 1 as described in Condition 36.1 or continuously monitor the concentration of H_2S in fuel gases before being burned in EU ID 1 as described in Condition 36.2.

[18 AAC 50.040(a)(2)(J) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i) & (ii)]
[40 CFR 60.105(a)(3) & (4), Subpart J]

36.1. Install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration by volume (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.

[40 CFR 60.105(a)(3), Subpart J]

a. The span values for this monitor are 50 ppm SO_2 and 25 percent oxygen (O_2).

b. The SO_2 monitoring level equivalent to the H_2S standard under Condition 35 shall be 20 ppm (dry basis, zero percent excess air).

c. The performance evaluations for this SO_2 monitor under 40 CFR 60.13(c) shall use Performance Specification 2. Methods 6 or 6C and 3 or 3A shall be used for conducting the relative accuracy evaluations. Method 6 samples shall be taken at a flow rate of approximately 2 liters/min for at least 30 minutes. The relative accuracy limit shall be 20 percent or 4 ppm, whichever is greater, and the calibration drift limit shall be 5 percent of the established span value.

[40 CFR 60.105(a)(3)(i)–(iii), Subpart J]

36.2. Install, calibrate, maintain and operate an instrument for continuous monitoring and recording of the concentration (dry basis) of H_2S in fuel gases before being burned in EU ID 1.

[40 CFR 60.105(a)(4), Subpart J]

a. The span value for this instrument is 425 mg/dscm H_2S.

b. The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

[40 CFR 60.105(a)(4)(i) & (iii), Subpart J]

36.3. The Permittee is not required to comply with Condition 36.1 or Condition 36.2 for fuel gas streams combusted in a fuel gas combustion device that are inherently low in sulfur content. Fuel gas streams meeting one of the requirements in 40 CFR 60.105(a)(4)(iv)(A) through (D) will be considered inherently low in sulfur content. If the composition of a fuel gas stream changes such that it no longer meets one of the requirements in 40 CFR 60.105(a)(4)(iv)(A) through (D), the Permittee must begin continuous monitoring under Condition 36.1 or Condition 36.2 within 15 days of the change.

[40 CFR 60.105(a)(4)(iv), Subpart J]

a. For each fuel gas stream combusted in EU ID 1, if the Permittee determines that one of the exemptions listed in 40 CFR 60.105(a)(4)(iv) (Condition 36.3) applies to that fuel gas stream, the Permittee shall maintain records of the specific exemption chosen for each fuel gas stream.

b. If the Permittee applies for the exemption described in 40 CFR 60.105(a)(4)(iv)(D), the Permittee must keep a copy of the application as well as the letter from the Administrator granting approval of the application.

[40 CFR 60.107(e), Subpart J]

37. NSPS Subpart J Reporting. For EU ID 1, the Permittee shall report as follows:

[18 AAC 50.040(a)(2)(J) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]
[40 CFR 60.105 & 60.107, Subpart J]

37.1. For the purpose of EEMSP Reports and Summary Reports required under Conditions 24 and 25, the Permittee shall report[11]:

a. all rolling 3-hour periods during which the average concentration of SO_2 as measured by the SO_2 continuous monitoring system under Condition 36.1 exceeds 20 ppm (dry basis, zero percent excess air); or

[40 CFR 60.105(e)(3)(i), Subpart J]

b. all rolling 3-hour periods during which the average concentration of H_2S as measured by the H_2S continuous monitoring system under Condition 36.2 exceeds the limit in Condition 35.

[40 CFR 60.105(e)(3)(ii), Subpart J]

c. For any periods for which sulfur dioxide or oxides emissions data are not available, submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

[40 CFR 60.107(d), Subpart J]

d. Submit the reports required under Condition 37 to the Administrator semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

[40 CFR 60.107(f), Subpart J]

[11] All averages 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.

e. Submit a signed statement certifying the accuracy and completeness of the information contained in the reports required by Condition 37.

[40 CFR 60.107(g), Subpart J]

Subpart Ja - Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007

38. NSPS Subpart Ja Emissions Limitations. For EU IDs 18–21 the Permittee shall comply with the following emission limits:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.102a(a), Subpart Ja]

38.1. For each fuel gas combustion device (EU IDs 18–20), comply with either the emission limit in Condition 38.1.a or the fuel gas concentration limit in Condition 38.1.b.

a. The Permittee shall not discharge or cause the discharge of any gases into the atmosphere that contain SO_2 in excess of 20 ppmv (dry basis, corrected to 0 percent excess air) determined hourly on a 3-hour rolling average basis and SO_2 in excess of 8 ppmv (dry basis, corrected to 0 percent excess air), determined daily on a 365 successive day rolling average basis; or

b. The Permittee shall not burn in any of EU IDs 18–20 any fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis and H_2S in excess of 60 ppmv determined daily on a 365 successive calendar day rolling average basis.

[40 CFR 60.102a(g)(1)(i) & (ii), Subpart Ja]

c. The combustion in a portable generator of fuel gas released as a result of tank degassing and/or cleaning is exempt from the emissions limits in Conditions 38.1.a and 38.1.b.

[40 CFR 60.102a(g)(1)(iii), Subpart Ja]

39. NSPS Subpart Ja Design, Equipment, Work Practice or Operational Standards. For EU IDs 18–21, the Permittee shall comply with all applicable design, equipment, work practice and operational standards, including the following:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.103a, Subpart Ja]

39.1. The Permittee shall not burn in the flare, EU ID 21, any fuel gas that contains H_2S in excess of 162 ppmv determined hourly on a 3-hour rolling average basis. 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 limit.

[40 CFR 60.103a(h), Subpart Ja]

39.2. For fuel gas combustion devices (EU IDs 18–20) and the flare (EU ID 21), the Permittee shall conduct a root cause analysis and a corrective action analysis for each of the conditions specified in Conditions 39.2.a through 39.2.b.

[40 CFR 60.103a(c), Subpart Ja]

a. For a flare:

(i) Any time the SO_2 emissions exceed 227 kilograms (kg) (500 lb) in any 24-hour period; or

(ii) Any discharge to the flare in excess of 14,160 standard cubic meters (m^3) (500,000 standard cubic feet (scf)) above the baseline, determined in 40 CFR 60.103a(a)(4), in any 24-hour period.

[40 CFR 60.103a(c)(1)(i) & (ii), Subpart Ja]

b. For a fuel gas combustion device, each exceedance of an applicable short-term emissions limit in Condition 38.1 if the SO_2 discharge to the atmosphere is 227 kg (500 lb) greater than the amount that would have been emitted if the emissions limits had been met during one or more consecutive periods of excess emissions or any 24-hour period, whichever is shorter.

[40 CFR 60.103a(c)(2), Subpart Ja]

39.3. A root cause analysis and corrective action analysis must be completed as soon as possible, but no later than 45 days after a discharge meeting one of the conditions specified in Conditions 39.2.a through 39.2.b. Special circumstances affecting the number of root cause analyses and/or corrective action analyses are provided in Conditions 39.3.a through 39.3.d.

[40 CFR 60.103a(d), Subpart Ja]

a. If a single continuous discharge meets any of the conditions specified in Conditions 39.2.a through 39.2.b for 2 or more consecutive 24-hour periods, a single root cause analysis and corrective action analysis may be conducted.

b. If a single discharge from a flare triggers a root cause analysis based on more than one of the conditions specified in Conditions 39.2.a(i) and 39.2.a(ii), a single root cause analysis and corrective action analysis may be conducted.

c. If the discharge from a flare is the result of a planned startup or shutdown of a refinery process unit or ancillary equipment connected to the affected flare and the procedures in 40 CFR 60.103a(a)(5) were followed, a root cause analysis and corrective action analysis is not required; however, the discharge must be recorded as described in Condition 43.2.c and reported as described in Condition 44.2.a(v).

d. If discharges occur that meet any of the conditions specified in Conditions 39.2.a through 39.2.b for more than one affected facility in the same 24-hour period, initial root cause analyses shall be conducted for each affected facility. If the initial root cause analyses indicate that the discharges have the same root cause(s), the initial root cause analyses can be recorded as a single root cause analysis and a single corrective action analysis may be conducted.

[40 CFR 60.103a(d)(1)–(3) & (5), Subpart Ja]

39.4. For each fuel gas combustion device or flare, the Permittee shall implement the corrective action(s) identified in the corrective action analysis conducted pursuant to Condition 39.3 in accordance with the applicable requirements in Conditions 39.4.a through 39.4.c.

[40 CFR 60.103a(e), Subpart Ja]

a. All corrective action(s) must be implemented within 45 days of the discharge for which the root cause and corrective action analyses were required or as soon thereafter as practicable. If an owner or operator concludes that corrective action should not be conducted, the owner or operator shall record and explain the basis for that conclusion no later than 45 days following the discharge as specified in 40 CFR 60.108a(c)(6)(ix).

b. For corrective actions that cannot be fully implemented within 45 days following the discharge for which the root cause and corrective action analyses were required, the owner or operator shall develop an implementation schedule to complete the corrective action(s) as soon as practicable.

c. No later than 45 days following the discharge for which a root cause and corrective action analyses were required, the owner or operator shall record the corrective action(s) completed to date, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates as specified in 40 CFR 60.108a(c)(6)(x).

[40 CFR 60.103a(e)(1)–(3), Subpart Ja]

39.5. For the flare, EU ID 21, the Permittee shall develop and implement a written flare management plan.

a. The plan shall include the information listed in 40 CFR 60.103a(a)(1) through (a)(7).

b. The Permittee must submit the plan to the EPA and Department as described in 40 CFR 60.103a(b).

[40 CFR 60.103a(a) & (b), Subpart Ja]

39.6. In accordance with 40 CFR 60.103a(j), the Permittee may apply to the EPA for a determination of equivalence for any means of emission limitation that achieves a reduction in emissions of a specified pollutant at least equivalent to the reduction in emissions of that pollutant achieved by the controls required in 40 CFR 60.103a.

[40 CFR 60.103a(j), Subpart Ja]

40. NSPS Subpart Ja Notification. The Permittee shall notify the EPA and Department of the specific monitoring provisions of Condition 42 with which the Permittee intends to comply.

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]
[40 CFR 60.108a(b), Subpart Ja]

41. NSPS Subpart Ja Performance Tests. The Permittee shall comply with all applicable performance test requirements, including the following:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]
[40 CFR 60.104a, Subpart Ja]

41.1. The notification requirements of 40 CFR 60.8(d) apply to subsequent performance tests (as required by the EPA or Department), but does not apply to performance tests conducted for the purpose of obtaining supplemental data because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments.

[40 CFR 60.104a(a), Subpart Ja]

41.2. In conducting the performance tests required by NSPS Subpart Ja (or as requested by the EPA or Department), the Permittee shall use the test methods in 40 CFR part 60, Appendices A-1 through A-8 or other methods as specified in 40 CFR 60.104a, except as provided in 40 CFR 60.8(b).

[40 CFR 60.104a(c), Subpart Ja]

41.3. The Permittee shall determine compliance with the SO_2 emissions limit in Condition 38.1.a according to the applicable test methods and procedures specified in 40 CFR 60.104a(i)(1) through (4) and (8).

[40 CFR 60.104a(i), Subpart Ja]

41.4. The Permittee shall determine compliance with the H_2S emissions limit in Condition 38.1.b or the concentration requirement in Condition 39.1 according to the applicable test methods and procedures specified in 40 CFR 60.104a(j)(1) through (4).

[40 CFR 60.104a(j), Subpart Ja]

42. NSPS Subpart Ja Monitoring. The Permittee shall comply with all applicable monitoring requirements, including the following:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]
[40 CFR 60.107a, Subpart Ja]

42.1. For EU IDs 18 and 19, if the Permittee elects to comply with the SO_2 emission limits in Condition 38.1.a, the Permittee shall comply with the requirements in Condition 42.1.a. For EU ID 21, and for EU IDs 18 and 19 if the Permittee elects to comply with the H_2S concentration limits in Condition 38.1.b, the Permittee shall comply with Condition 42.1.b.

[40 CFR 60.107a(a), Subpart Ja]

a. Install, calibrate, maintain, and operate an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere. The monitor must include an O_2 monitor for correcting the data for excess air.

[40 CFR 60.107a(a)(1), Subpart Ja]

(i) Install, operate, and maintain each SO_2 monitor according to Performance Specification 2 of appendix B to part 60. The span value for the SO_2 monitor is 50 ppm SO_2.

(ii) Conduct performance evaluations for the SO_2 monitor according to the requirements of Condition 31.2 and Performance Specification 2 of appendix B to part 60. The Permittee shall use Methods 6, 6A, or 6C of appendix A-4 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see 40 CFR 60.17) is an acceptable alternative to EPA Method 6 or 6A of appendix A-4 to part 60. Samples taken by Method 6 of appendix A-4 to part 60 shall be taken at a flow rate of approximately 2 liters/min for at least 30 minutes. The relative accuracy limit shall be 20 percent or 4 ppm, whichever is greater, and the calibration drift limit shall be 5 percent of the established span value.

(iii) Install, operate, and maintain each O_2 monitor according to Performance Specification 3 of appendix B to part 60. The span value for the O_2 monitor must be selected between 10 and 25 percent, inclusive.

(iv) Conduct performance evaluations for the O_2 monitor according to the requirements of Condition 31.2 and Performance Specification 3 of appendix B to part 60. The Permittee shall use Methods 3, 3A, or 3B of appendix A-2 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see § 60.17) is an acceptable alternative to EPA Method 3B of appendix A-2 to part 60.

(v) Comply with the applicable quality assurance procedures in Appendix F to 40 CFR 60, including quarterly accuracy determinations for SO_2 monitors, annual accuracy determinations for O_2 monitors, and daily calibration drift tests.

(vi) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location (i.e., after one of the combustion devices), if monitoring at this location accurately represents the SO_2 emissions into the atmosphere from each of the combustion devices.

[40 CFR 60.107a(a)(1)(i)–(vi), Subpart Ja]

b. Install, calibrate, maintain and operate an instrument for continuously monitoring and recording of the concentration by volume (dry basis) of H_2S in the fuel gases before being burned in each of EU IDs 18, 19, and 21.

[40 CFR 60.107a(a)(2), Subpart Ja]

(i) Install, operate and maintain each H_2S monitor according to Performance Specification 7 of Appendix B to part 60. The span value for this instrument is 300 ppmv H_2S.

(ii) Conduct performance evaluations for each H_2S monitor according to the requirements of Condition 31.2 and Performance Specification 7 of appendix B to part 60. The Permittee shall use Method 11, 15, or 15A of appendix A-5 to part 60 or Method 16 of appendix A-6 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see 40 CFR 60.17) is an acceptable alternative to EPA Method 15A of appendix A-5 to part 60.

(iii) Comply with the applicable quality assurance procedures in Appendix F to 40 CFR 60 for each H_2S monitor.

(iv) Fuel gas combustion devices or flares 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 in the respective fuel gas combustion devices or flares.

(v) For the flare subject to Conditions 39.2 through 39.4, EU ID 21, the Permittee may use the instrument required in 40 CFR 60.107a(e)(1) to demonstrate compliance with the H_2S concentration requirement in Condition 39.1 if the Permittee complies with the requirements of 40 CFR 60.107a(e)(1)(i) through (iv) and if the instrument has a span (or dual span, if necessary) capable of accurately measuring concentrations between 20 and 300 ppmv. If the instrument required in 40 CFR 60.107a(e)(1) is used to demonstrate compliance with the H_2S concentration requirement, the concentration directly measured by the instrument must meet the numeric concentration in Condition 39.1.

[40 CFR 60.107a(a)(2)(i)–(v), Subpart Ja]

42.2. For a fuel gas combustion device or flare, the Permittee is not required to comply with Condition 42.1.a or 42.1.b for fuel gas streams that are exempt under Condition 38.1.c or 39.1 or, for fuel gas streams combusted in a process heater, other fuel gas combustion device or flare that are inherently low in sulfur content. Fuel gas streams meeting one of the requirements in Conditions 42.2.a through 42.2.d will be considered inherently low in sulfur content. If the composition of an exempt fuel gas stream changes, the owner or operator must follow the procedures in Condition 42.3.c.

[40 CFR 60.107a(a)(3) & (4), Subpart Ja]

a. Pilot gas for heaters and flares.

b. Fuel gas streams that meet a commercial-grade product specification for sulfur content of 30 ppmv or less. In the case of a liquefied petroleum gas (LPG) product specification in the pressurized liquid state, the gas phase sulfur content should be evaluated assuming complete vaporization of the LPG and sulfur containing-compounds at the product specification concentration.

c. Fuel gas streams produced in process units that are intolerant to sulfur contamination, such as fuel gas streams produced in the hydrogen plant, catalytic reforming unit, isomerization unit, and HF alkylation process units.

d. Other fuel gas streams that the Permittee demonstrates are low-sulfur according to the procedures in Condition 42.3.

[40 CFR 60.107a(a)(3)(i)–(iv), Subpart Ja]

42.3. For a fuel gas combustion device or flare, the Permittee may apply for an exemption from the H_2S monitoring requirements in Condition 42.1.b of this section for a fuel gas stream that is inherently low in sulfur content. A fuel gas stream that is demonstrated to be low-sulfur is exempt from the monitoring requirements of Conditions 42.1.a and 42.1.b until there are changes in operating conditions or stream composition.

[40 CFR 60.107a(b), Subpart Ja]

a. The Permittee shall submit to the EPA a written application for an exemption from monitoring. The application must contain the information in 40 CFR 60.107a(b)(1)(i) through (v).

b. The effective date of the exemption is the date of submission of the information required in Condition 42.3.a.

c. No further action is required unless refinery operating conditions change in such a way that affects the exempt fuel gas stream/system (e.g., the stream composition changes). If such a change occurs, the Permittee shall follow the procedures in 40 CFR 60.107a(b)(3)(i), (b)(3)(ii), or (b)(3)(iii).

[40 CFR 60.107a(b)(1)–(3), Subpart Ja]

42.4. For an affected flare subject to Conditions 39.2 through 39.4, the Permittee shall determine the total reduced sulfur concentration for each gas line directed to the affected flare in accordance with either 40 CFR 60.107a(e)(1), (e)(2) or (e)(3). Different options may be elected for different gas lines. If a monitoring system is in place that is capable of complying with the requirements related to either 40 CFR 60.107a(e)(1), (e)(2) or (e)(3), for a modified flare, the Permittee must comply with the requirements related to either 40 CFR 60.107a(e)(1), (e)(2) or (e)(3) upon startup of the modified flare. If a monitoring system is not in place that is capable of complying with the requirements related to either 40 CFR 60.107a(e)(1), (e)(2) or (e)(3), for a modified flare, the Permittee must comply with the requirements related to either 40 CFR 60.107a(e)(1), (e)(2) or (e)(3) no later than November 11, 2015 or upon startup of the modified flare, whichever is later.

[40 CFR 60.107a(e), Subpart Ja]

42.5. For an affected flare subject to Conditions 39.2 through 39.4 , the Permittee shall install, operate, calibrate and maintain, in accordance with the specifications in Condition 42.5.a, a CPMS to measure and record the flow rate of gas discharged to the flare. For a modified flare, if a flow monitor is not already in place, the Permittee shall comply with the requirements of this paragraph by no later than November 11, 2015 or upon startup of the modified flare, whichever is later.

[40 CFR 60.107a(f), Subpart Ja]

a. The owner or operator shall install, calibrate, operate and maintain each flow monitor according to the manufacturer's procedures and specifications and the following requirements.

[40 CFR 60.107a(f)(1), Subpart Ja]

(i) Locate the monitor in a position that provides a representative measurement of the total gas flow rate.

(ii) Use a flow sensor with a measurement sensitivity of no more than 5 percent of the flow rate or 10 cubic feet per minute, whichever is greater.

(iii) Use a flow monitor that is maintainable online, is able to continuously correct for temperature and pressure and is able to record flow in standard conditions (as defined in 40 CFR 60.2) over one-minute averages.

(iv) At least quarterly, perform a visual inspection of all components of the monitor for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion if the flow monitor is not equipped with a redundant flow sensor.

(v) Recalibrate the flow monitor in accordance with the manufacturer's procedures and specifications biennially (every two years) or at the frequency specified by the manufacturer.

[40 CFR 60.107a(f)(1)(i)–(v), Subpart Ja]

42.6. For the purpose of reports required by Conditions 24 and 25,

a. periods of excess emissions for fuel gas combustion devices subject to the emissions limitations in Condition 38.1 and flares subject to the concentration requirement in Condition 39.1 are defined as specified in Conditions 42.6.a(i) through 42.6.a(ii). Determine a rolling 3-hour or a rolling daily average as the arithmetic average of the applicable 1-hour averages (e.g., a rolling 3-hour average is the arithmetic average of three contiguous 1-hour averages). Determine a rolling 30-day or a rolling 365-day average as the arithmetic average of the applicable daily averages (e.g., a rolling 30-day average is the arithmetic average of 30 contiguous daily averages).

[40 CFR 60.107a(i), Subpart Ja]

(i) SO_2 or H_2S limits for fuel gas combustion devices, EU IDs 18–20.

(A) For a fuel gas combustion device, if the Permittee elects to comply with the SO_2 emission limits in Condition 38.1.a, each rolling 3-hour period during which the average concentration of SO_2 as measured by the SO_2 continuous monitoring system required under Condition 42.1.a exceeds 20 ppmv, and each rolling 365-day period during which the average concentration of SO_2 as measured by the SO_2 continuous monitoring system required under Condition 42.1.a exceeds 8 ppmv.

(B) For a fuel gas combustion device, if the Permittee elects to comply with the H_2S concentration limits in Condition 38.1.b, each rolling 3-hour period during which the average concentration of H_2S as measured by the H_2S continuous monitoring system required under Condition 42.1.b exceeds 162 ppmv and each rolling 365-day period during which the average concentration as measured by the H_2S continuous monitoring system under Condition 42.1.b exceeds 60 ppmv.

(C) For a fuel gas combustion device, if the Permittee becomes subject to the requirements of daily stain tube sampling in 40 CFR 60.107a(b)(3)(iii), each day during which the daily concentration of H_2S exceeds 162 ppmv and each rolling 365-day period during which the average concentration of H_2S exceeds 60 ppmv.

[40 CFR 60.107a(i)(1)(i)–(iii), Subpart Ja]

(ii) H_2S concentration limits for flares, EU ID 21.

(A) Each rolling 3-hour period during which the average concentration of H_2S as measured by the H_2S continuous monitoring system required under Condition 42.1.b exceeds 162 ppmv.

(B) For a flare, if the Permittee becomes subject to the requirements of daily stain tube sampling in 40 CFR 60.107a(b)(3)(iii), each day during which the daily concentration of H_2S exceeds 162 ppmv.

[40 CFR 60.107a(i)(2)(i) & (ii), Subpart Ja]

43. NSPS Subpart Ja Recordkeeping. The Permittee shall comply with all applicable recordkeeping requirements, including the following:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 60.108a, Subpart Ja]

43.1. The Permittee shall comply with the recordkeeping requirements in 40 CFR 60.7 and other recordkeeping requirements as specified in Condition 43.

[40 CFR60.108a(a), Subpart Ja]

43.2. The Permittee shall maintain the following records:

a. A copy of the flare management plan.

b. For each fuel gas stream to which one of the exemptions listed in Condition 42.2 applies, records of the specific exemption determined to apply for each fuel stream. If the Permittee applies for the exemption described in Condition 42.2.d, the owner or operator must keep a copy of the application as well as the letter from the EPA granting approval of the application.

c. Records of discharges greater than 500 lb SO_2 in any 24-hour period from any affected flare, discharges greater than 500 lb SO_2 in excess of the allowable limits from a fuel gas combustion device and discharges to an affected flare in excess of 500,000 scf above baseline in any 24-hour period as required by Condition 39.2.

d. If the Permittee elects to comply with 40 CFR 60.107a(e)(2) for a flare, records of the H_2S and total sulfur analyses of each grab or integrated sample, the calculated daily total sulfur-to-H_2S ratios, the calculated 10-day average total sulfur-to-H_2S ratios and the 95-percent confidence intervals for each 10-day average total sulfur-to-H_2S ratio.

[40 CFR60.108a(c)(1), (5), (6) & (7), Subpart Ja]

44. NSPS Subpart Ja Reporting. The Permittee shall comply with all applicable reporting requirements, including the following:

[18 AAC 50.040(a)(2)(TT) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]
[40 CFR 60.108a, Subpart Ja]

44.1. The Permittee shall comply with the notification and reporting requirements in 40 CFR 60.7 and other notification and reporting requirements as specified in Condition 44.

[40 CFR60.108a(a), Subpart Ja]

44.2. The Permittee shall submit an excess emissions report for all periods of excess emissions according to the requirements of Conditions 24 and 25 except that the report shall contain the information specified in Conditions 44.2.a(i) through 44.2.a(vii).

a. The report shall contain the following information:

(i) The date that the exceedance occurred;

(ii) An explanation of the exceedance;

(iii) Whether the exceedance was concurrent with a startup, shutdown, or malfunction of an affected facility or control system; and

(iv) A description of the action taken, if any.

(v) The information described in Condition 43.2.c for all discharges listed in Condition 43.2.c.

(vi) For any periods for which monitoring data are not available, any changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

(vii) A written statement, signed by a responsible official, certifying the accuracy and completeness of the information contained in the report.

[40 CFR 60.108a(d)(1) – (7), Subpart Ja]

Subpart Kb – Volatile Organic Liquid Storage Vessels

45. NSPS Subpart Kb Standard for Volatile Organic Compounds (VOC). The Permittee shall equip each of EU IDs 13–15 with one of the following:

[18 AAC 50.040(a)(2)(M) & (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(1)]

45.1. A fixed roof in combination with an internal floating roof meeting the specifications in 40 CFR 60.112b(a)(1)(i) through (ix); or

45.2. A system equivalent to those described in Condition 45.1 as provided in 40 CFR 60.114b.

[40 CFR 60.110b & 60.112b(a)(1) & (4), Subpart Kb]

46. NSPS Subpart Kb Testing and Procedures. For EU IDs 13–15, the Permittee shall:

[18 AAC 50.040(a)(2)(M) & (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]

46.1. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

46.2. For vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

46.3. For vessels equipped with a double-seal system as specified in 40 CFR 60.112b(a)(1)(ii)(B):

a. Visually inspect the vessel as specified in Condition 46.4 at least every 5 years; or

b. Visually inspect the vessel as specified in Condition 46.2.

46.4. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this Condition 46.4 exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Conditions 46.2 and 46.3.b and at intervals no greater than 5 years in the case of vessels specified in Condition 46.3.a.

[40 CFR 60.113b(a)(1) – (4), Subpart Kb]

46.5. **Notification.** Notify the EPA and Department in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Conditions 46.1 and 46.4 to afford the EPA and Department the opportunity to have an observer present. If the inspection required by Condition 46.4 is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the EPA and Department at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the EPA and Department at least 7 days prior to the refilling.

[40 CFR 60.113b(a)(5), Subpart Kb]

47. NSPS Subpart Kb Monitoring. For EU IDs 13–15, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(M) & (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(3)(i)]

47.1. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

a. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated using the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated using the maximum local monthly average ambient temperatures as reported by the National Weather Service.

b. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in American Petroleum Institute (API) Bulletin 2517 (incorporated by reference—see 40 CFR 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

[40 CFR 60.116b(e)(1) & (2), Subpart Kb]

48. NSPS Subpart Kb Recordkeeping. For EU IDs 13–15, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(M) & (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]

48.1. For the life of the storage vessels, keep readily accessible records showing the dimensions and an analysis showing the capacity of the storage vessel.

[40 CFR 60.116b(a) & (b), Subpart Kb]

48.2. Keep copies of all records required herein for at least two years.

[40 CFR 60.116b(a), Subpart Kb]

a. Maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

[40 CFR 60.116b(c), Subpart Kb]

b. Keep a record of each inspection performed as required by Condition 46. Each record shall

(i) identify the storage vessel on which the inspection was performed; and

(ii) contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

[40 CFR 60.115b(a)(2), Subpart Kb]

49. NSPS Subpart Kb Reporting. For EU IDs 13–15, the Permittee shall report, as follows:

[18 AAC 50.040(a)(2)(M) & (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]

49.1. If any of the conditions described in Condition 46.2 are detected during the annual visual inspection required by Condition 46.2, a report shall be furnished to the EPA and Department within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made; and

49.2. After each inspection required by Condition 46.3 that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in Condition 46.3.b, a report shall be furnished to the EPA and Department within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Condition 45.1 or 46.3 and list each repair made.

[40 CFR 60.115b(a)(3) & (4), Subpart Kb]

Subpart GGGa - Equipment Leaks of VOC in Petroleum Refineries

50. NSPS Subpart GGGa/VVa Standards. For EU IDs 1, 6–10, and 13–15, and 18–24, the Permittee shall comply with all applicable requirements of NSPS Subpart GGGa and associated requirements of 40 CFR 60.482a through 60.487a in Subpart VVa for affected equipment as specified in Conditions 51 through 61.

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j); 18 AAC 50.326(j)(4)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.592a, Subpart GGGa & 60.482a – 60.487a, Subpart VVa]

51. General Standards. The Permittee shall comply with the requirements for pumps, pressure relief devices, sampling connection systems, open-ended valves or lines, flanges or other connectors, and valves found in 40 CFR 60.482-1a through 60.482-10a, Subpart VVa as follows:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j); 18 AAC 50.326(j)(4)]
[40 CFR 60.592(a), Subpart GGGa]

51.1. The Permittee shall demonstrate compliance with the requirements of Conditions 51 through 57.5 or 40 CFR 60.480a(e) for all equipment within 180 days of initial startup.

[40 CFR 60.482-1a(a), Subpart VVa]

51.2. The Permittee may request a determination of equivalence of a means of emission limitation to the requirements of Conditions 52, 54, 55, 56, and 57 as provided in 40 CFR 60.484a. If the EPA makes a determination that a means of emission limitation is at least equivalent to the requirements of Conditions 52, 54, 55, 56, or 57, the Permittee shall comply with the requirements of that determination.

[40 CFR 60.482-1a(c), Subpart VVa]

51.3. Equipment in vacuum service is excluded from the requirements of Conditions 52 through 57.5 if it is identified as required in Condition 60.4.f.

[40 CFR 60.482-1a(d), Subpart VVa]

51.4. Equipment that an owner or operator designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of Conditions 52 through 57.5 if it is identified as required in Condition 60.4.g and it meets any of the criteria specified below.

a. The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process.

b. The equipment is in VOC service only during process malfunctions or other emergencies.

c. The equipment is backup equipment that is in VOC service only when the primary equipment is out of service.

[40 CFR 60.482-1a(e)(1)-(3), Subpart VVa]

52. Pumps in Light Liquid Service. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j); 18 AAC 50.326(j)(4)]
[40 CFR 60.482-2a, Subpart VVa]

52.1. Each pump in light liquid service shall be:

a. Monitored monthly to detect leaks by methods specified in 59.1, except as provided in Condition 51.2 and Conditions 52.4, 52.5 and 52.6. A pump that begins operation in light liquid service after the initial startup date for process unit must be monitored for the first time within 30 days after the end of a its startup period, except for a pump that replaces a leaking pump and except as provided in Conditions 51.2 and Conditions 52.4, 52.5 and 52.6.

b. Checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR 60.482-1a(f).

[40 CFR 60.482-2a(a)(1) & (2), Subpart VVa]

52.2. The instrument reading that defines a leak is 5,000 ppm or greater for pumps handling polymerizing monomers and 2,000 ppm or greater for all other pumps.

[40 CFR 60.482-2a(b)(1), Subpart VVa]

a. If there are indications of liquids dripping from the pump seal, the Permittee shall follow the procedure specified in either Condition 52.2.a(i) or 52.2.a(ii). This requirement does not apply to a pump that was monitored after a previous weekly inspection and the instrument reading was less than the concentration specified in Condition 52.2, whichever is applicable.

(i) Monitor the pump within 5 days as specified in Condition 59.1. A leak is detected if the instrument reading measured during monitoring indicates a leak as specified in Condition 52.2, whichever is applicable. The leak shall be repaired using the procedures in Condition 52.3.

(ii) Designate the visual indications of liquids dripping as a leak, and repair the leak using either the procedures in Condition 52.3 or by eliminating the visual indications of liquids dripping.

[40 CFR 60.482-2a(b)(2), Subpart VVa]

52.3. When a leak is detected,

a. It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Condition 57.5; and

b. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in Conditions 52.3.b(i) and 52.3.b(ii), where practicable.

(i) Tightening the packing gland nuts;

(ii) Ensuring that the seal flush is operating at design pressure and temperature.

[40 CFR 60.482-2a(c)(1) & (2), Subpart VVa]

52.4. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Condition 52.1, provided the requirements specified in Conditions 52.4.a through 52.4.h are met:

a. Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process of fuel gas system or connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10(a); or

(iii) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

b. The barrier fluid system is in heavy liquid service or is not in VOC service.

c. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

d. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

e. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the owner or operator shall follow the procedure specified in either Condition 52.4.e(i) or 52.4.e(ii) prior to the next required inspection.

(i) Monitor the pump within 5 days as specified in Condition 59.1 to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 2,000 ppm or greater is measured, a leak is detected.

(ii) Designate the visual indications of liquids dripping as a leak.

f. Each sensor as described in Condition 52.4.c is checked daily or is equipped with an audible alarm.

g. The owner or operator determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

h. If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established on Condition 52.4.g, a leak is detected.

i. For leaks:

(i) When a leak is detected pursuant to Condition 52.4.e(i), it shall be repaired as specified in Condition 52.3;

(ii) A leak detected pursuant to Condition 52.4.h shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor; and

(iii) A designated leak pursuant to Condition 52.4.e(ii) shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping.

[40 CFR 60.482-2a(d)(1)-(6), Subpart VVa]

52.5. Any pump that is designated, as described in Conditions 60.4.a through 60.4.c, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Conditions 52.1, 52.3 and 52.4 if the pump:

a. Has no externally actuated shaft penetrating the pump housing;

b. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Condition 59.2 and

c. Is tested for compliance with Condition 52.5.b above initially upon designation, annually, and at other times requested by the EPA or Department.

[40 CFR 60.482-2a(e)(1)-(3), Subpart VVa]

52.6. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 CFR 60.482-10a, it is exempt from Conditions 52.1 through 52.5.

[40 CFR 60.482-2a(f), Subpart VVa]

52.7. Any pump that is designated, as described in Condition 60.5.a, as unsafe-to-monitor is exempt from the monitoring and inspection requirements of Conditions 52.1 and 52.4.d through 52.4.i if:

a. The Permittee demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition 52.1; and

b. The Permittee has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in Condition 52.3 if a leak is detected.

[40 CFR 60.482-2a(g)(1)-(2), Subpart VVa]

53. Pressure Relief Devices in Gas/Vapor Service. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.482-4a, Subpart VVa]

53.1. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by methods specified in Condition 59.2.

[40 CFR 60.482-4a(a), Subpart VVa]

53.2. After each pressure release,

a. the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in Condition 57.5.

b. no later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by as the methods specified in Condition 59.2.

[40 CFR 60.482-4a(b)(1) & (2), Subpart VVa]

53.3. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10a is exempt from Conditions 53.1 and 53.2.

[40 CFR 60.482-4a(c), Subpart VVa]

53.4. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of Conditions 53.1 and 53.2 provided the Permittee complies with the requirements in Condition 53.4.a.

a. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each release except as provided in Condition 57.5.

[40 CFR 60.482-4a(d), Subpart VVa]

54. Sampling Connection Systems. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.482-5a, Subpart VVa]

54.1. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in Condition 51.2 and Condition 54.3.

54.2. Each closed-purge, closed-loop, or closed-vent system as required in Condition 54.1 shall comply with the requirements specified in Conditions 54.2.a through 54.2.d.

a. Gases displaced during filling of the sample container are not required to be collected or captured.

b. Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied.

c. Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured.

d. Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either Condition 54.2.d(i), (ii), (iii), or (iv).

(i) Return the purged process fluid directly to the process line.

(ii) Collect and recycle the purged process fluid to a process.

(iii) Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 60.482-10a.

(iv) Collect, store, and transport the purged process fluid to any of the following systems or facilities:

(A) A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to and operated in compliance with the provisions of 40 CFR part 63, subpart G, applicable to Group 1 wastewater streams;

(B) A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266;

(C) A facility permitted, licensed, or registered by a state to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261;

(D) A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 40 CFR 61.347; or

(E) A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261.

54.3. In-situ sampling systems and sampling systems without purges are exempt from the requirements of Conditions 54.1 and 54.2.

[40 CFR 60.482-5a(a)-(c), Subpart VVa]

55. Open-ended Valves or Lines. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.482-6a, Subpart VVa]

55.1. For each open-ended valve or line:

a. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in Condition 51.2 and Conditions 55.4 and 55.5.

b. The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

55.2. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

55.3. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with Condition 55.1 at all other times.

55.4. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of Conditions 55.1, 55.2, and 55.3.

55.5. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in Conditions 55.1 through 55.3 are exempt from the requirements of Conditions 55.1 through 55.3.

[40 CFR 60.482-6a(a)-(e), Subpart VVa]

56. Valves in Gas/Vapor Service and in Light Liquid Service. The Permittee shall comply with the following requirements. For a given process unit, the Permittee may elect to comply with the requirements of 40 CFR 60.592a(b)(1), (2), or (3) as an alternative to the requirements in Condition 56.

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.592a(b); 40 CFR 60.482-7a, Subpart VVa]

56.1. Each valve shall be monitored to detect leaks as follows:

a. Each valve shall be monitored monthly to detect leaks by the methods specified in Condition 59.1 and shall comply with Conditions 56.2 through

56.5, except as provided in Conditions 56.7 through 56.9, Condition 51.3 and 40 CFR 60.483-1a and 60.483-2a.

b. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to Condition 56.1.b(i) or 56.1.b(ii), except for a valve that replaces a leaking valve and except as provided in Conditions 56.7 through 56.9, Condition 51.3 and 40 CFR 60.483-1a and 60.483-2a.

(i) Monitor the valve as in Condition 56.1.a. The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation.

(ii) If the existing valves in the process unit are monitored in accordance with 40 CFR 60.483-1a or 60.483-2a, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR 60.483-2a(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first.

[40 CFR 60.482-7a(a)(1) & (2), Subpart VVa]

56.2. If an instrument reading of 500 ppm or greater is measured, a leak is detected.

[40 CFR 60.482-7a(b), Subpart VVa]

56.3. Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

a. As an alternative to monitoring all of the valves in the first month of a quarter, the Permittee may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The owner or operator must keep records of the valves assigned to each subgroup.

56.4. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

[40 CFR 60.482-7a(c)(1) & (2), Subpart VVa]

56.5. When a leak is detected,

a. it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Condition 57.5; and

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

[40 CFR 60.482-7a(d)(1) & (2), Subpart VVa]

56.6. First attempts at repair include, but are not limited to, the following best practices where practicable:

a. Tightening of bonnet bolts;

b. Replacement of bonnet bolts;

c. Tightening of packing gland nuts; and

d. Injection of lubricant into lubricated packing.

[40 CFR 60.482-7a(e), Subpart VVa]

56.7. Any valve that is designated, as described in Condition 60.4.b, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of Condition 56.1 if the valve:

a. Has no external actuating mechanism in contact with the process fluid,

b. Is operated with emissions less than 500 ppm above background as determined by the method specified in Condition 59.2, and

c. Is tested for compliance with Condition 56.7.b initially upon designation, annually, and at other times requested by the Administrator.

[40 CFR 60.482-7a(f)(1)-(3), Subpart VVa]

56.8. Any valve that is designated, as described in Condition 60.5.a, as an unsafe-to-monitor valve is exempt from the requirements of Condition 56.1 if:

a. The Permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Condition 56.1; and

b. The Permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

[40 CFR 60.482-7a(g)(1) & (2), Subpart VVa]

56.9. Any valve that is designated, as described in Condition 60.5.b, as a difficult-to-monitor valve is exempt from the requirements of Conditions 56.1 if:

a. The Permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface.

b. The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 and was constructed on or before January 5, 1981, or has less than 3.0 percent of its total number of valves designated as difficult-to-monitor by the Permittee.

c. The Permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

[40 CFR 60.482-7a(h)(1)-(3), Subpart VVa]

57. Pumps, Valves, and Connectors in Heavy Liquid Service and Pressure Relief Devices in Light Liquid or Heavy Liquid Service. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.482-8a, Subpart VV]

57.1. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the Permittee shall follow either one of the following procedures:

a. The Permittee shall monitor the equipment within 5 days by as the method specified in Condition 59.1 and shall comply with the requirements of Conditions 57.2 through 57.4

b. The Permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection.

[40 CFR 60.482-8a(a)(1) & (2), Subpart VVa]

57.2. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

[40 CFR 60.482-8a(b), Subpart VVa]

57.3. When a leak is detected,

a. it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Condition 57.5.

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

[40 CFR 60.482-8a(c), Subpart VVa]

57.4. First attempts at repair include, but are not limited to, the best practices described under Conditions 52.3.b and 56.6.

[40 CFR 60.482-8a (d), Subpart VVa]

57.5. Connectors in gas/vapor or light liquid service are exempt from the requirements in 40 CFR 60.482-11a, provided the Permittee complies with Condition 57 for all connectors, not just those in heavy liquid service.

[40 CFR 60.593a(g), Subpart GGGa]

58. Delay of Repair. The Permittee shall comply with the following requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.482-9a, Subpart VVa]

58.1. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.

[40 CFR 60.482-9a(a), Subpart VVa]

58.2. Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service.

[40 CFR 60.482-9a(b), Subpart VVa]

58.3. Delay of repair for valves and connectors will be allowed if:

a. The Permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repaired, and

b. when repair procedures are affected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10a.

[40 CFR 60.482-9a(c)(1) & (2), Subpart VVa]

58.4. Delay of repair for pumps will be allowed if:

a. repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and

b. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

[40 CFR 60.482-9a(d)(1) & (2), Subpart VVa]

58.5. Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

[40 CFR 60.482-9a(e), Subpart VVa]

58.6. When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.

[40 CFR 60.482-9a(f), Subpart VVa]

59. NSPS Subpart GGGa/VVa Test Methods and Procedures. The Permittee shall comply with the following test methods and procedures, except as provided in 40 CFR 60.593a:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.592a(d), Subpart GGGa; 40 CFR 60.485a, Subpart VVa]

59.1. The Permittee shall determine compliance with the standards in Conditions 51 through 57.5, 40 CFR 60.483a and 60.484a as follows:

a. 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 of appendix A-7 of 40 CFR 60. The following calibration gases shall be used:

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

(ii) A Mixture of methane or n-hexane and air at a concentration no more than 2,000 ppm greater than the leak definition concentration of the equipment monitored. If the monitoring instrument's design allows for multiple calibration scales, then the lower scale shall be calibrated with a calibration gas that is no higher than 2,000 ppm above the concentration specified as a leak, and the highest scale shall be calibrated with a calibration gas that is approximately equal to 10,000 ppm. If only one scale on an instrument will be used during monitoring, the Permittee need not calibrate the scales that will not be used during that day's monitoring.

b. A calibration drift assessment shall be performed, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 of appendix A-7 of 40 CFR 60, Section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Calculate the average algebraic difference between the three meter readings and the most recent calibration value. Divide this algebraic difference by the initial calibration value and multiply by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100) must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at the owner/operator's discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by (100 plus the percent of positive drift/divided by 100) may be re-monitored.

[40 CFR 60.485a(b), Subpart VVa]

59.2. The Permittee shall determine compliance with the no-detectable-emission standards in Conditions 52.5, 53.1 and 56.7 as follows:

a. The requirements of Condition 59.1 shall apply.

b. Method 21 of appendix A-7 of 40 CFR 60 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum

concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

[40 CFR 60.485a(c), Subpart VVa]

59.3. The Permittee shall test each piece of equipment unless he demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the methods and procedures in 40 CFR 60.485a(d)(1)-(3) shall be used.

[40 CFR 60.485a(d), Subpart VVa]

59.4. The Permittee shall demonstrate that a piece of equipment is in light liquid service by showing that all the conditions in 40 CFR 60.485a(e)(1)-(3) apply.

[40 CFR 60.485a(e), Subpart VVa]

59.5. Samples used in conjunction with Conditions 59.3 and 59.4 shall be representative of the process fluid that is contained in or contacts the equipment.

[40 CFR 60.485a(f), Subpart VVa]

59.6. The Permittee shall determine compliance with 40 CFR 60.483-1a or 60.483-2a as specified in 40 CFR 60.485a(h)(1)-(6).

[40 CFR 60.485a(h), Subpart VVa]

60. NSPS Subpart GGGa/VVa Recordkeeping Requirements. The Permittee shall comply with the following recordkeeping requirements:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.592a(e), Subpart GGGa; 40 CFR 60.486, Subpart VVa]

60.1. The Permittee shall record the information specified below for each monitoring event required by Conditions 52, 54, 57, and 40 CFR 60.483-2a:

a. Monitoring instrument identification;

b. Operator identification;

c. Equipment identification;

d. Date of monitoring;

e. Instrument reading.

[40 CFR 60.486a(a)(3), Subpart VVa]

60.2. When each leak is detected as specified in Conditions 52, 54, 57, and 40 CFR 60.483-2a, the following requirements apply:

a. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

b. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Conditions 56.3 and 56.4 and no leak has been detected during those 2 months.

c. The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

[40 CFR 60.486a(b)(1), (2) & (4), Subpart VVa]

60.3. When each leak is detected as specified in Conditions 52, 54, 57, and 40 CFR 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

a. The instrument and operator identification numbers, and the equipment identification number.

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

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

d. Maximum instrument reading measured by Method 21 of appendix A-7 of 40 CFR 60 at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

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

f. The signature of the Permittee (or designate) whose decision it was that the repair could not be affected without a process shutdown.

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

h. Dates of process unit shutdowns that occur while the equipment is unrepaired.

i. The date of successful repair of the leak.

[40 CFR 60.486a(c)(1)-(9), Subpart VVa]

60.4. The Permittee shall record in a log that is kept in a readily accessible location the following information pertaining to all equipment subject to the requirements in Conditions 52 to 57.5:

a. A list of identification numbers for equipment subject to the requirements of this subpart.

b. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of Conditions 52.5 and 56.7.

c. The designation of equipment as subject to the requirements of Condition 52.5 and 56.7 shall be signed by the Permittee. Alternatively, the Permittee may establish a mechanism with the Department that satisfies this requirement.

d. A list of equipment identification numbers for pressure relief devices required to comply with Condition 53.

e. For compliance tests:

(i) The dates of each compliance test as required in Conditions 52.5, 53.2 and 56.7.

(ii) The background level measured during each compliance test.

(iii) The maximum instrument reading measured at the equipment during each compliance test.

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

g. A list of identification numbers for equipment that the Permittee designates as operating in VOC service less than 300 hr/yr in accordance with Condition 51.4, a description of the conditions under which the equipment is in VOC service and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

h. The date and results of the weekly visual inspection for indications of liquids dripping from pumps in the light liquid service.

i. Records of the information below for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 of Appendix A-7 of 40 CFR 60 and Condtion 59.1.

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 of Appendix A-7 of 40 CFR 60.

(v) Results of each calibration drift assessment required by Condition 59.1.b (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).

(vi) If the Permittee makes their own calibration gas, a description of the procedure used.

j. Records of each release from a pressure relief device subject to Condition 53.1.

[40 CFR 60.486a(e)(1)-(8) & (10), Subpart VVa]

60.5. The following information pertaining to all valves subject to the requirements of Conditions 56.8 and 56.9, and all pumps subject to the requirements of Condition 52.7 and all connectors shall be recorded in a log that is kept in a readily accessible location:

a. A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

b. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

[40 CFR 60.486a(f)(1) & (2), Subpart VVa]

60.6. The information in Conditions 60.6.a and 60.6.b shall be recorded for valves complying with 40 CFR 60.483-2a.

a. A schedule of monitoring.

b. The percent of valves found leaking during each monitoring period.

[40 CFR 60.486a(g)(1) & (2), Subpart VVa]

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

a. Design criterion required in Condition 52.4.h and 40 CFR 60.482-3a(e)(2) and explanation of the design criterion; and

b. Any changes to this criterion and the reasons for the changes.

[40 CFR 60.486a(h)(1) & (2), Subpart VVa]

60.8. The Permittee shall record in a log that is kept in a readily accessible location the information and data used to demonstrate that a piece of equipment is not in VOC service.

[40 CFR 60.486a(j), Subpart VVa]

60.9. The provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to NSPS Subpart VVa.

[40 CFR 60.486a(k), Subpart VVa]

61. NSPS Subpart GGGa/VVa Reporting Requirements. The Permittee shall report as follows:

[18 AAC 50.040(a)(2)(UU) & (VV), 50.040(j) & 50.326(j)(4)]
[40 CFR 60.592a(e), Subpart GGGa; 40 CFR 60.487a, Subpart VVa]

61.1. submit semiannual reports to the EPA that include the following information, summarized from the information in Condition 60:

a. Process unit identification.

b. For each month during the semiannual reporting period,

(i) Number of valves for which leaks were detected as described in Condition 56.2 or 40 CFR 60.483-2a;

(ii) Number of valves for which leaks were not repaired as required in Condition 56.5;

(iii) Number of pumps for which leaks were detected as described in Condition 52.2, 52.4.e(i) or 52.4.e(ii), or 52.4.h;

(iv) Number of pumps for which leaks were not repaired as required in Conditions 52.3 and 52.4.i;

(v) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

c. Dates of process unit shutdowns that occurred within the semiannual reporting period.

d. Revisions to items reported according to 40 CFR 60.487a(b) if changes have occurred since the initial report or subsequent revisions to the initial report.

[40 CFR 60.487a(c)(1)-(4), Subpart VVa]

61.2. If electing to comply with the provisions of 40 CFR 60.483-1a or 60.483-2a, the Permittee shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions

[40 CFR 60.487a(d), Subpart VVa]

61.3. Report the results of all performance tests in accordance with 40 CFR 60.8. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of 40 CFR 60 Subpart VVa except that the Permittee must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

[40 CFR 60.487a(e), Subpart VVa]

Subpart QQQ – VOC Emissions from Petroleum Refinery Wastewater Systems

62. For EU ID 29, process drains, and process sumps, the Permittee shall comply with the applicable requirements for individual drain systems, oil-water separators, and aggregate facilities, as defined in 40 CFR 60.691, located in petroleum refineries for which construction, modification, or reconstruction is commenced after May 4, 1987.

[18 AAC 50.040(a)(2)(GG) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.690(a), Subpart QQQ]

62.1. **General Standards.** The Permittee shall comply with the following:

a. The Permittee shall comply with the requirements of Conditions 62.1 to 62.5 and with Conditions 62.8 and 62.9, except during periods of startup, shutdown, or malfunction.

b. Permission to use alternative means of emission limitation to meet the requirements of Conditions 62.2 through 62.4 may be granted as provided in 40 CFR 60.694.

[40 CFR 60.692-1(a) & (c), Subpart QQQ]

c. Stormwater sewer systems; ancillary equipment, which is physically separate from the wastewater system and does not come in contact with or store oily wastewater; and non-contact cooling water systems are not subject to the requirements of NSPS Subpart QQQ.

[40 CFR 60.692-1(d)(1)–(3), Subpart QQQ]

d. An owner or operator shall demonstrate compliance with the exclusions in Condition 62.1.c as provided in 40 CFR 60.697 (h), (i), and (j).

[40 CFR 60.692-1(d)(4), Subpart QQQ]

62.2. **Individual Drain System Standards.**

a. For drains, the Permittee shall comply with the following:

(i) Each drain shall be equipped with water seal controls.

(ii) Each drain in active service shall be checked by visual or physical inspection initially and monthly thereafter for indications of low water levels or other conditions that would reduce the effectiveness of the water seal controls.

(iii) Except as provided in Condition 62.2.a(iv), each drain out of active service shall be checked by visual or physical inspection initially and weekly thereafter for indications of low water levels or other problems that could result in VOC emissions.

(iv) As an alternative to the requirements in Condition 62.2.a(iii), if an owner or operator elects to install a tightly sealed cap or plug over a drain that is out of service, inspections shall be conducted initially and semiannually to ensure caps or plugs are in place and properly installed.

(v) Whenever low water levels or missing or improperly installed caps or plugs are identified, water shall be added or first efforts at repair shall be made as soon as practicable, but not later than 24 hours after detection, except as provided in Condition 62.6.

[40 CFR 60.692-2(a)(1)–(5), Subpart QQQ]

b. For junction boxes, the Permittee shall comply with the following:

(i) Junction boxes shall be equipped with a cover and may have an open vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter.

(ii) Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance.

(iii) Junction boxes shall be visually inspected initially and semiannually thereafter to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge.

(iv) If a broken seal or gap is identified, first effort at repair shall be made as soon as practicable, but not later than 15 calendar days after the broken seal or gap is identified, except as provided in Condition 62.6.

[40 CFR 60.692-2(b)(1)–(4), Subpart QQQ]

c. For sewer lines, the Permittee shall comply with the following:

(i) Sewer lines shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces.

(ii) The portion of each unburied sewer line shall be visually inspected initially and semiannually thereafter for indication of cracks, gaps, or other problems that could result in VOC emissions.

(iii) Whenever cracks, gaps, or other problems are detected, repairs shall be made as soon as practicable, but not later than 15 calendar days after identification, except as provided in Condition 62.6.

[40 CFR 60.692-2(c)(1)–(3), Subpart QQQ]

d. Except as provided in Condition 62.2.e, each modified or reconstructed individual drain system that has a catch basin in the existing configuration prior to May 4, 1987 shall be exempt from the provisions of Condition 62.2.

e. Refinery wastewater routed through new process drains and a new first common downstream junction box, either as part of a new individual drain system or an existing individual drain system, shall not be routed through a downstream catch basin.

[40 CFR 60.692-2(d) and (e), Subpart QQQ]

62.3. **Oil-water Separator Standards.** For EU ID 29, the Permittee shall comply with the following:

a. Each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of NSPS Subpart QQQ shall be equipped and operated with a fixed roof, which meets the specifications in 40 CFR 60.692-3(a)(1) through (5), except as provided in Condition 62.3.e or 62.9.

[40 CFR 60.692-3(a), Subpart QQQ]

b. Each oil-water separator tank or auxiliary equipment with a design capacity to treat more than 16 liters per second (250 gallons per minute (gpm)) of refinery wastewater shall, in addition to the requirements in Condition 62.3.a, be equipped and operated with a closed vent system and control device, which meet the requirements of Condition 62.5, except as provided in Condition 62.3.c or 62.9.

[40 CFR 60.692-3(b), Subpart QQQ]

c. Each modified or reconstructed oil-water separator tank with a maximum design capacity to treat less than 38 liters per second (600 gpm) of refinery wastewater which was equipped and operated with a fixed roof covering the entire separator tank or a portion of the separator tank prior to May 4, 1987 shall be exempt from the requirements of Condition 62.3.b, but shall meet the requirements of Condition 62.3.a, or may elect to comply with Condition 62.3.d.

d. The owner or operator may elect to comply with the requirements of Condition 62.3.a for the existing fixed roof covering a portion of the separator tank and comply with the requirements for floating roofs in Condition 62.9 for the remainder of the separator tank.

[40 CFR 60.692-3(c)(1) & (2), Subpart QQQ]

e. Storage vessels, including slop oil tanks and other auxiliary tanks that are subject to the standards in 40 CFR 60.112, 60.112a, and 60.112b and associated requirements, 40 CFR part 60, Subparts K, Ka, or Kb are not subject to the requirements of Condition 62.3.

f. Slop oil from an oil-water separator tank and oily wastewater from slop oil handling equipment shall be collected, stored, transported, recycled, reused, or disposed of in an enclosed system. Once slop oil is returned to the process unit or is disposed of, it is no longer within the scope of NSPS Subpart QQQ. Equipment used in handling slop oil shall be equipped with a fixed roof meeting the requirements of Condition 62.3.a.

g. Each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment that is required to comply with Condition 62.3.a, and not Condition 62.3.b, may be equipped with a pressure control valve as necessary for proper system operation. The pressure control valve shall be set at the maximum pressure necessary for proper system operation, but such that the value will not vent continuously.

[40 CFR 60.692-3(d)–(f), Subpart QQQ]

62.4. **Aggregate Facility[12] Standards.** For a new, modified, or reconstructed aggregate facility, the Permittee shall comply with the requirements of Conditions 62.2 and 62.3.

[40 CFR 60.692-4, Subpart QQQ]

62.5. **Closed Vent System and Control Device Standards.** The Permittee shall comply with the following:

a. Enclosed combustion devices shall be designed and operated to reduce the VOC emissions vented to them with an efficiency of 95 percent or greater or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 °C (1,500 °F).

b. Vapor recovery systems (for example, condensers and adsorbers) shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater.

c. Flares used to comply with NSPS Subpart QQQ shall comply with the requirements of 40 CFR 60.18.

d. Closed vent systems and control devices used to comply with provisions of NSPS Subpart QQQ shall be operated at all times when emissions may be vented to them.

[40 CFR 60.692-5(a)–(d), Subpart QQQ]

e. For closed vent systems, the Permittee shall comply with 40 CFR 60.692-5(e)(1) through (5).

[40 CFR 60.692-5(e)(1)–(5), Subpart QQQ]

62.6. **Delay of Repair Standards.** Delay of repair of facilities that are subject to the provisions of NSPS Subpart QQQ will be allowed if the repair is technically impossible without a complete or partial refinery or process unit shutdown. Repair of such equipment shall occur before the end of the next refinery or process unit shutdown.

[40 CFR 60.692-6(a) & (b), Subpart QQQ]

62.7. **Delay of Compliance Standards.** Delay of compliance of modified individual drain systems with ancillary downstream treatment components will be allowed if compliance with the provisions of NSPS Subpart QQQ cannot be achieved without a refinery or process unit shutdown. Installation of equipment necessary to comply with the provisions of NSPS Subpart QQQ shall occur no later than the next scheduled refinery or process unit shutdown.

[40 CFR 60.692-7(a) & (b), Subpart QQQ]

[12] As defined in 40 CFR 60.691, *aggregate facility* means an individual drain system together with ancillary downstream sewer lines and oil-water separators, down to and including the secondary oil-water separator, as applicable.

62.8. **Alternative Standards for Individual Drain Systems.**

a. The Permittee may elect to construct and operate a completely closed drain system and comply with the following.

[40 CFR 60.693-1(a), Subpart QQQ]

(i) Each completely closed drain system shall be equipped and operated with a closed vent system and control device complying with the requirements of Condition 62.5.

(ii) The Permittee must notify the Administrator in the report required in 40 CFR 60.7 that the Permittee has elected to construct and operate a completely closed drain system.

[40 CFR 60.693-1(b) & (c), Subpart QQQ]

(iii) If the Permittee elects to comply with the provisions of Condition 62.8, then the Permittee does not need to comply with the provisions of Condition 62.2 or 40 CFR 60.694.

[40 CFR 60.693-1(d), Subpart QQQ]

(iv) Sewer lines shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces.

(v) The portion of each unburied sewer line shall be visually inspected initially and semiannually thereafter for indication of cracks, gaps, or other problems that could result in VOC emissions.

(vi) Whenever cracks, gaps, or other problems are detected, repairs shall be made as soon as practicable, but not later than 15 calendar days after identification, except as provided in Condition 62.6.

[40 CFR 60.693-1(e)(1)–(3), Subpart QQQ]

62.9. **Alternative Standards for Oil-water Separators.**

a. The Permittee may elect to construct and operate a floating roof on an oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of NSPS Subpart QQQ which meets the following specifications.

[40 CFR 60.693-2(a), Subpart QQQ]

(i) Each floating roof shall be equipped with a closure device between the wall of the separator and the roof edge. The closure device is to consist of a primary seal and a secondary seal.

[40 CFR 60.693-2(a)(1), Subpart QQQ]

(A) The primary seal shall be a liquid-mounted seal or a mechanical shoe seal.

[40 CFR 60.693-2(a)(1)(i), Subpart QQQ]

(1) A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the separator and the floating roof. A mechanical shoe seal means a metal sheet held vertically against the wall of the separator by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(2) The gap width between the primary seal and the separator wall shall not exceed 3.8 cm (1.5 in.) at any point.

(3) The total gap area between the primary seal and the separator wall shall not exceed 67 cm2/m (3.2 in.2/ft) of separator wall perimeter.

[40 CFR 60.693-2(a)(1)(i)(A)–(C), Subpart QQQ]

(B) The secondary seal shall be above the primary seal and cover the annular space between the floating roof and the wall of the separator.

[40 CFR 60.693-2(a)(1)(ii), Subpart QQQ]

(1) The gap width between the secondary seal and the separator wall shall not exceed 1.3 cm (0.5 in.) at any point.

(2) The total gap area between the secondary seal and the separator wall shall not exceed 6.7 cm2/m (0.32 in.2/ft) of separator wall perimeter.

[40 CFR 60.693-2(a)(1)(ii)(A) & (B), Subpart QQQ]

(C) The maximum gap width and total gap area shall be determined by the methods and procedures specified in Condition 62.11.d.

[40 CFR 60.693-2(a)(1)(iii), Subpart QQQ]

(1) Measurement of primary seal gaps shall be performed within 60 calendar days after initial installation of the floating roof and introduction of refinery wastewater and once every 5 years thereafter.

(2) Measurement of secondary seal gaps shall be performed within 60 calendar days of initial introduction of refinery wastewater and once every year thereafter.

[40 CFR 60.693-2(a)(1)(iii)(A) & (B), Subpart QQQ]

(D) The Permittee shall make necessary repairs within 30 calendar days of identification of seals not meeting the requirements listed in Conditions 62.9.a(i)(A) and (B).

[40 CFR 60.693-2(a)(1)(iv), Subpart QQQ]

(ii) Except as provided in Condition 62.9.a(iv), each opening in the roof shall be equipped with a gasketed cover, seal, or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance.

(iii) The roof shall be floating on the liquid (i.e., off the roof supports) at all times except during abnormal conditions (i.e., low flow rate).

(iv) The floating roof may be equipped with one or more emergency roof drains for removal of stormwater. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least 90 percent of the drain opening area or a flexible fabric sleeve seal.

[40 CFR 60.693-2(a)(2)–(4), Subpart QQQ]

(v) Access doors and other openings shall be visually inspected initially and semiannually thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions.

(vi) When a broken seal or gasket on an access door or other opening is identified, it shall be repaired as soon as practicable, but not later than 30 calendar days after it is identified, except as provided in Condition 62.6.

[40 CFR 60.693-2(a)(5)(i) & (ii), Subpart QQQ]

b. The Permittee must notify the Administrator in the report required by 40 CFR 60.7 that the Permittee has elected to construct and operate a floating roof under Condition 62.9.a.

c. For portions of the oil-water separator tank where it is infeasible to construct and operate a floating roof, such as the skimmer mechanism and weirs, a fixed roof meeting the requirements of Condition 62.3.a shall be installed.

d. Except as provided in Condition 62.9.c, if the Permittee elects to comply with the provisions of Condition 62.9, then the Permittee does not need to comply with the provisions of Condition 62.3 or 40 CFR 60.694 applicable to the same facilities.

[40 CFR 60.693-2(b)–(d), Subpart QQQ]

62.10. **Monitoring of Operations.** The Permittee shall comply with the following:

a. The Permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator.

[40 CFR 60.695(a), Subpart QQQ]

(i) Where a thermal incinerator is used for VOC emission reduction, a temperature monitoring device equipped with a continuous recorder shall be used to measure the temperature of the gas stream in the combustion zone of the incinerator. The temperature monitoring device shall have an accuracy of ±1 percent of the temperature being measured, expressed in °C, or ±0.5 °C (0.9 °F), whichever is greater.

(ii) Where a catalytic incinerator is used for VOC emission reduction, temperature monitoring devices, each equipped with a continuous recorder shall be used to measure the temperature in the gas stream immediately before and after the catalyst bed of the incinerator. The temperature monitoring devices shall have an accuracy of ±1 percent of the temperature being measured, expressed in °C, or ±0.5 °C (0.9 °F), whichever is greater.

(iii) Where a carbon adsorber is used for VOC emissions reduction, a monitoring device that continuously indicates and records the VOC concentration level or reading of organics in the exhaust gases of the control device outlet gas stream or inlet and outlet gas stream shall be used.

[40 CFR 60.695(a)(1)–(3), Subpart QQQ]

(A) For a carbon adsorption system that regenerates the carbon bed directly onsite, a monitoring device that continuously indicates and records the volatile organic compound concentration level or reading of organics in the exhaust gases of the control device outlet gas stream or inlet and outlet gas stream shall be used.

(B) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device (e.g., a carbon canister), the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system.

[40 CFR 60.695(a)(3)(i) & (ii), Subpart QQQ]

(iv) Where a flare is used for VOC emission reduction, the owner or operator shall comply with the monitoring requirements of 40 CFR 60.18(f)(2).

[40 CFR 60.695(a)(4), Subpart QQQ]

b. Where a VOC recovery device other than a carbon adsorber is used to meet the requirements specified in Condition 62.5.a, the owner or operator shall provide to the Administrator information describing the operation of the control device and the process parameter(s) that would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

[40 CFR 60.695(b), Subpart QQQ]

c. An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

[40 CFR 60.695(c), Subpart QQQ]

62.11. **Performance Test Methods and Procedures and Compliance Provisions.** The Permittee shall comply with the following:

a. Before using any equipment installed in compliance with the requirements of Condition 62.2, 62.3, 62.4, 62.5, 62.8 or 62.9, the owner or operator shall inspect such equipment for indications of potential emissions, defects, or other problems that may cause the requirements of NSPS Subpart QQQ not to be met. Points of inspection shall include, but are not limited to, seals, flanges, joints, gaskets, hatches, caps, and plugs.

[40 CFR 60.696(a), Subpart QQQ]

b. The owner or operator of each source that is equipped with a closed vent system and control device as required in Condition 62.5 (other than a flare) is exempt from 40 CFR 60.8 of the General Provisions and shall use Method 21 to measure the emission concentrations, using 500 ppm as the no detectable emission limit. The instrument shall be calibrated each day before using. The calibration gases shall be:

[40 CFR 60.696(b), Subpart QQQ]

(i) Zero air (less than 10 ppm of hydrocarbon in air), and

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

[40 CFR 60.696(b)(1) & (2), Subpart QQQ]

c. The owner or operator shall conduct a performance test initially, and at other times as requested by the Administrator, using the test methods and procedures in 40 CFR 60.18(f) to determine compliance of flares.

[40 CFR 60.696(c), Subpart QQQ]

d. After installing the control equipment required to meet Condition 62.9.a or whenever sources that have ceased to treat refinery wastewater for a period of 1 year or more are placed back into service, the owner or operator shall determine compliance with the standards in Condition 62.9.a as follows:

[40 CFR 60.696(d), Subpart QQQ]

(i) The maximum gap widths and maximum gap areas between the primary seal and the separator wall and between the secondary seal and the separator wall shall be determined individually within 60 calendar days of the initial installation of the floating roof and introduction of refinery wastewater or 60 calendar days after the equipment is placed back into service using the procedure in 40 CFR 60.696(d)(1)(i) through (iii) when the separator is filled to the design operating level and when the roof is floating off the roof supports.

(ii) The gap widths and total gap area shall be determined using the procedure in Condition 62.11.d(i) once every 5 years for primary seals and once every year for secondary seals.

[40 CFR 60.696(d)(1) & (2), Subpart QQQ]

62.12. **Recordkeeping Requirements.** The Permittee shall comply with the following:

a. All records shall be retained for a period of 2 years after being recorded unless otherwise noted.

[40 CFR 60.697(a), Subpart QQQ]

b. For individual drain systems subject to Condition 62.2, the location, date, and corrective action shall be recorded for each drain when the water seal is dry or otherwise breached, when a drain cap or plug is missing or improperly installed, or other problem is identified that could result in VOC emissions, as determined during the initial and periodic visual or physical inspection.

c. For junction boxes subject to Condition 62.2, the location, date, and corrective action shall be recorded for inspections required by Condition 62.2.b when a broken seal, gap, or other problem is identified that could result in VOC emissions.

d. For sewer lines subject to Conditions 62.2 and 62.8.a(iv) through (vi), the location, date, and corrective action shall be recorded for inspections required by Conditions 62.2.c and 62.8.a(iv) through (vi) when a problem is identified that could result in VOC emissions.

[40 CFR 60.697(b)(1)–(3), Subpart QQQ]

e. For oil-water separators subject to Condition 62.3, the location, date, and corrective action shall be recorded for inspections required by Condition 62.3.a when a problem is identified that could result in VOC emissions.

[40 CFR 60.697(c), Subpart QQQ]

f. For closed vent systems subject to Condition 62.5 and completely closed drain systems subject to Condition 62.8, the location, date, and corrective action shall be recorded for inspections required by Condition 62.5.e during which detectable emissions are measured or a problem is identified that could result in VOC emissions.

[40 CFR 60.697(d), Subpart QQQ]

g. If an emission point cannot be repaired or corrected without a process unit shutdown, the expected date of a successful repair shall be recorded.

h. The reason for the delay as specified in Condition 62.6 shall be recorded if an emission point or equipment problem is not repaired or corrected in the specified amount of time.

i. The signature of the owner or operator (or designee) whose decision it was that repair could not be affected without refinery or process shutdown shall be recorded.

j. The date of successful repair or corrective action shall be recorded.

[40 CFR 60.697(e)(1)–(4), Subpart QQQ]

k. A copy of the design specifications for all equipment used to comply with the provisions of NSPS Subpart QQQ shall be kept for the life of the source in a readily accessible location.

[40 CFR 60.697(f)(1), Subpart QQQ]

(i) The following information pertaining to the design specifications shall be kept.

[40 CFR 60.697(f)(2), Subpart QQQ]

(A) Detailed schematics, and piping and instrumentation diagrams.

(B) The dates and descriptions of any changes in the design specifications.

[40 CFR 60.697(f)(2)(i) & (ii), Subpart QQQ]

l. The information in 40 CFR 60.697(f)(3)(i) through (x) and 60.697(f)(3)(x)(A) and (B) pertaining to the operation and maintenance of closed drain systems and closed vent systems shall be kept in a readily accessible location.

[40 CFR 60.697(f)(3), Subpart QQQ]

m. If an owner or operator elects to install a tightly sealed cap or plug over a drain that is out of active service, the owner or operator shall keep for the life of a facility in a readily accessible location, plans or specifications which indicate the location of such drains.

[40 CFR 60.697(g), Subpart QQQ]

n. For oil-water separators subject to Condition 62.9, the location, date, and corrective action shall be recorded for inspections required by Conditions 62.9.a(i)(C)(1) and (2), and shall be maintained for ten years after the information is recorded for inspections required by Condition 62.9.a(i)(C)(1) and two years after the information is recorded for inspections required by Condition 62.9.a(i)(C)(2).

[40 CFR 60.697(k), Subpart QQQ]

62.13. **Reporting Requirements.** The Permittee shall comply with the following:

a. An owner or operator electing to comply with the provisions of Conditions 62.8 and/or 62.9 shall notify the Administrator of the alternative standard selected in the report required in 40 CFR 60.7.

[40 CFR 60.698(a), Subpart QQQ]

b. Each owner or operator of a facility subject to NSPS Subpart QQQ shall submit to the Administrator within 60 days after initial startup a certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests of process drains, sewer lines, junction boxes, oil-water separators, and closed vent systems and control devices have been carried out in accordance with these standards. Thereafter, the owner or operator shall submit to the Administrator semiannually a certification that all of the required inspections have been carried out in accordance with these standards.

c. Each owner or operator of an affected facility that uses a flare shall submit to the Administrator within 60 days after initial startup, as required under 40 CFR 60.8(a), a report of the results of the performance test required in Condition 62.11.c.

[40 CFR 60.698(b)(1) & (2), Subpart QQQ]

d. A report that summarizes all inspections when a water seal was dry or otherwise breached, when a drain cap or plug was missing or improperly installed, or when cracks, gaps, or other problems were identified that could result in VOC emissions, including information about the repairs or corrective action taken, shall be submitted initially and semiannually thereafter to the Administrator.

[40 CFR 60.698(c), Subpart QQQ]

e. As applicable, a report shall be submitted semiannually to the Administrator that indicates:

[40 CFR 60.698(d), Subpart QQQ]

(i) Each 3-hour period of operation during which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design combustion zone temperature,

(ii) Each 3-hour period of operation during which the average temperature of the gas stream immediately before the catalyst bed of a catalytic incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design gas stream temperature, and any 3-hour period during which the average temperature difference across the catalyst bed (i.e., the difference between the temperatures of the gas stream immediately before and after the catalyst bed), as measured by the temperature monitoring device, is less than 80 percent of the design temperature difference, or,

(iii) Each 3-hour period of operation during which the average VOC concentration level or reading of organics in the exhaust gases from a carbon adsorber is more than 20 percent greater than the design exhaust gas concentration level or reading.

[40 CFR 60.698(d)(1)–(3), Subpart QQQ]

(A) Each 3-hour period of operation during which the average volatile organic compound concentration level or reading of organics in the exhaust gases from a carbon adsorber which is regenerated directly onsite is more than 20 percent greater than the design exhaust gas concentration level or reading.

(B) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly onsite in the control device is not replaced at the predetermined interval specified in Condition 62.10.a(iii)(B).

[40 CFR 60.698(d)(3)(i) & (ii), Subpart QQQ]

f. If compliance with the provisions of NSPS Subpart QQQ is delayed pursuant to Condition 62.7, the notification required under 40 CFR 60.7(a)(4) shall include the estimated date of the next scheduled refinery or process unit shutdown after the date of notification and the reason why compliance with the standards is technically impossible without a refinery or process unit shutdown.

[40 CFR 60.698(e), Subpart QQQ]

Subpart IIII[13] - Stationary Compression Ignition Internal Combustion Engines

63. For EU ID 28, the Permittee shall comply with the applicable requirements for stationary compression ignition (CI) internal combustion engines (ICE) whose construction[14] commences after July 11, 2005 where the stationary CI ICE is manufactured after April 1, 2006 and are not fire pump engines.

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4200, Subpart IIII]

63.1. The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in Condition 65 over the entire life of the engine. Except as permitted under Condition 63.2, the Permittee must operate and maintain EU ID 28 and control device according to the manufacturer's emission-related written instructions. In addition, the Permittee may only change those settings that are permitted by the manufacturer, and the Permittee must meet the requirements of 40 CFR part 1068, as they apply to the Permittee.

[40 CFR 60.4206 & 60.4211(a), Subpart IIII]

63.2. If the Permittee does not install, configure, operate, and maintain EU ID 28 and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance in accordance with Condition 63.2.a.

[40 CFR 60.4211(g), Subpart IIII]

a. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3), Subpart IIII]

63.3. The Permittee shall comply with the applicable provisions of Subpart A as specified in Table 8 to Subpart IIII.

[40 CFR 60.4218 & Table 8, Subpart IIII]

[13] The provisions of NSPS Subpart IIII listed in Conditions 63 through 66 are current as amended through December 4, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[14] For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

64. NSPS Subpart IIII Fuel Requirements. For EU ID 28, the Permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]

64.1. Maximum sulfur content of 15 ppm.

64.2. Diesel fuel must meet one of the following standards:

a. Minimum cetane index of 40.

b. Maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b), Subpart IIII]
[40 CFR 1090.305, Subpart D]

65. NSPS Subpart IIII Emission Standards. For EU ID 28, the Permittee must comply with the emission standards for new CI engines in 40 CFR 60.4201, as follows:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]

65.1. The Permittee shall not exceed the following applicable exhaust emission standards:

a. 6.4 g/kW-hr for NMHC + NOx;

b. 3.5 g/KW-hr for CO; and

c. 0.20 g/kW-hr for PM; and

d. Exhaust opacity of:

(i) 20 percent during the acceleration mode;

(ii) 15 percent during the lugging mode; and

(iii) 50 percent during the peaks in either the acceleration or lugging modes.

[40 CFR 60.4205(b) & 60.4202(a)(2), Subpart IIII]
[40 CFR 89.112 & 89.113, Subpart B]

66. NSPS Subpart IIII Monitoring, Recordkeeping and Reporting. For EU ID 28, the Permittee shall comply with the following monitoring, recordkeeping, and reporting requirements:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(i) – (iii)]

66.1. Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212.

[40 CFR 60.4205(e), Subpart IIII]

66.2. You must demonstrate compliance with Condition 65 by purchasing an engine certified to the emission standards in Condition 65. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in Condition 63.2.

[40 CFR 60.4211(c), Subpart IIII]

66.3. You must operate the emergency stationary ICE according to the requirements in Conditions 66.3.a through c. In order for the engine to be considered an emergency stationary ICE under NSPS Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in Conditions 66.3.a through c, is prohibited. If you do not operate the engine according to the requirements in Conditions 66.3.a through c, the engine will not be considered an emergency engine under NSPS Subpart IIII and must meet all requirements for non-emergency engines.

[40 CFR 60.4211(f), Subpart IIII]

a. There is no time limit on the use of emergency stationary ICE in emergency situations.

[40 CFR 60.4211(f)(1), Subpart IIII]

b. You may operate your emergency stationary ICE for any combination of the purposes specified in Conditions 66.3.b(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 66.3.c counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 60.4211(f)(2), Subpart IIII]

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(i)–(iii), Subpart IIII]

c. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 66.3.b. Except as provided in Condition 66.3.c(i), the 50 hours per calendar year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3), Subpart IIII]

(i) The 50 hours per year for nonemergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 60.4211(f)(3)(i), Subpart IIII]

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)(3)(i)(A)–(E), Subpart IIII]

66.4. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to NSPS Subpart IIII must do so according to 40 CFR 60.4212(a) through (e).

[40 CFR 60.4212, Subpart IIII]

66.5. For the fuel requirements under Condition 64, monitor in accordance with Condition 13.2.

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(ii) & (c)(6)]

66.6. Report as follows:

a. To verify compliance with the fuel requirements under Condition 64, report in accordance with Condition 13.2.a(i).

[18 AAC 50.040(j) & 50.326(j)(4)]
[40 CFR 71.6(a)(3)(iii) & (c)(6)]

b. If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 hp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 66.3.b(ii) and (iii) or that operates for the purposes specified in Condition 66.3.c(i), you must submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3).

[40 CFR 60.4214(d), Subpart IIII]

National Emission Standard for Equipment Leaks (Fugitive Emission Sources)

67. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 61.110(c):

[18 AAC 50.040(b)(2)(B) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 61.110(c)(1) & (3), Subpart J]
[40 CFR 61.246(i), Subpart V]

67.1. An analysis demonstrating the design capacity of the process unit, and

[40 CFR 61.246(i)(1), Subpart V]

67.2. An analysis demonstrating that equipment is not in VHAP service.

[40 CFR 61.246(i)(2), Subpart V]

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart A – General Provision

68. NESHAP Subpart A Requirements. The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart JJJJJJ for EU ID 3 and Table 8 to Subpart ZZZZ for EU IDs 4 and 16.

[18 AAC 50.040(c)(1), (23), & (39); 50.040(j); & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.11235 & Table 8, Subpart JJJJJJ & 40 CFR 63.6665 & Table 8, Subpart ZZZZ]

NESHAP Subpart ZZZZ – Reciprocating Internal Combustion Engines

69. NESHAP Subpart ZZZZ Requirements. For EU IDs 4 and 16, the Permittee shall comply with the applicable NESHAP Subpart ZZZZ requirements for existing stationary reciprocating internal combustion engines (RICE) located at an area source of HAP emissions no later than May 3, 2013. For EU ID 28, the Permittee shall comply with the applicable requirements for new stationary RICE located at an area source of HAP emissions.

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6590 & 63.6595(a)(1), Subpart ZZZZ]

69.1. For EU ID 28, an affected emissions unit that is a new stationary reciprocating internal combustion engine (RICE) located at an area source, the unit must meet the requirements of 40 CFR part 63 by meeting the requirements of 40 CFR 60 Subpart IIII in Conditions 63 through 66. No further requirements apply for such engines under 40 CFR part 63.

[40 CFR 63.6590(c), Subpart ZZZZ]

69.2. The Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in NESHAP Subpart ZZZZ that apply to the Permittee at all times.

[40 CFR 63.6605(a), Subpart ZZZZ]

69.3. At all times the Permittee must operate and maintain EU IDs 4 and 16, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs 4 and 16.

[40 CFR 63.6605(b), Subpart ZZZZ]

69.4. For EU IDs 4 and 16, the Permittee must minimize each engine's time spent at idle during startup and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 CFR 63.6625(h), Subpart ZZZZ]

69.5. For EU ID 4, beginning January 1, 2015, if the Permittee operates an existing emergency CI stationary RICE with a site rating of more than 100 brake hp and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 71.5.b(ii) and 71.5.b(iii) or that operates for the purpose specified in Condition 71.5.c(ii), the Permittee must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[40 CFR 63.6604(b), Subpart ZZZZ]

70. NESHAP Subpart ZZZZ Management Practices, Standards, and Operating Limitations. For EU IDs 4 and 16, the Permittee must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.6603(a), Subpart ZZZZ]

70.1. Except during periods of startup and as allowed by Condition 70.3,

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

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

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

[40 CFR 63.6603(a) & Table 2d, Item 4, Subpart ZZZZ]

70.2. The Permittee has the option to utilize an oil analysis program as described in Condition 71.3 in order to extend the specified oil change requirement in Condition 70.1.a.

[40 CFR 63.6625(i) & Footnote 1 to Table 2d, Subpart ZZZZ]

70.3. If any of EU IDs 4 and 16 is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required under Condition 70.1, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated.

[40 CFR 63, Footnote 2 to Table 2d, Subpart ZZZZ]

71. NESHAP Subpart ZZZZ Monitoring. For each existing emergency stationary CI RICE, EU IDs 4 and 16, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(3)(i)]

71.1. You 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

[40 CFR 63.6625(e), Subpart ZZZZ]

71.2. You must install a non-resettable hour meter if one is not already installed.

[40 CFR 63.6625(f), Subpart ZZZZ]

71.3. If you own or operate a stationary CI engine that is subject to the work, operation or management practices in Condition 70, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 70.1.a. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to NESHAP Subpart ZZZZ. 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 engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator 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 engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator 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.

[40 CFR 63.6625(i), Subpart ZZZZ]

71.4. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 70.1 by:

[40 CFR 63.6640(a), Subpart ZZZZ]

a. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or

b. 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.

[40 CFR 63.6640(a) & Table 6, Item 9, Subpart ZZZZ]

71.5. You must operate the emergency stationary RICE according to the requirements in Conditions 71.5.a through 71.5.c. In order for the engine to be considered an emergency stationary RICE under NESHAP Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 71.5.a through 71.5.c, is prohibited. If you do not operate the engine according to the requirements in Conditions 71.5.a through 71.5.c, the engine will not be considered an emergency engine under NESHAP Subpart ZZZZ and must meet all requirements for non-emergency engines.

[40 CFR 63.6640(f), Subpart ZZZZ]

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

[40 CFR 63.6640(f)(1), Subpart ZZZZ]

b. You may operate your emergency stationary RICE for any combination of the purposes specified in Conditions 71.5.b(i) through 71.5.b(iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 71.5.c counts as part of the 100 hours per calendar year allowed by this Condition 71.5.b.

[40 CFR 63.6640(f)(2), Subpart ZZZZ]

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the EPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 63.6640(f)(2)(i)–(iii), Subpart ZZZZ]

c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 71.5.b. Except as provided in Conditions 71.5.c(i) and 71.5.c(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)(4), Subpart ZZZZ]

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

[40 CFR 63.6640(f)(4)(i) & (ii), Subpart ZZZZ]

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 63.6640(f)(4)(ii)(A)–(E), Subpart ZZZZ]

72. NESHAP Subpart ZZZZ Recordkeeping. For existing emergency stationary CI RICE, EU IDs 4 and 16, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 63.6655 & 63.6660, Subpart ZZZZ]

72.1. Your records must be in a form suitable and readily available for expeditious inspection and review; readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).

[40 CFR 63.6660, 63.6665, & Table 8, Subpart ZZZZ]
[40 CFR 63.10(b)(1), Subpart A]

72.2. 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 CFR 63.6655(e), Subpart ZZZZ]

72.3. You must keep records of the hours of operation of each of EU IDs 4 and 16 that are recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in Condition 71.5.b(ii) or 71.5.b(iii) or Condition 71.5.c(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

[40 CFR 63.6655(f), Subpart ZZZZ]

73. NESHAP Subpart ZZZZ Reporting. For EU ID 4, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23) & (j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(3)(iii)]

73.1. If you own or operate an emergency stationary RICE with a site rating of more than 100 brake hp that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions 71.5.b(ii) and 71.5.b(iii) or that operates for the purpose specified in Condition 71.5.c(ii), you must submit an annual report according to the requirements in Conditions 73.1.a through 73.1.c.

[40 CFR 63.6650(a) & (h) & Table 7, Item 4, Subpart ZZZZ]

a. The report must contain the following information:

[40 CFR 63.6650(h)(1), Subpart ZZZZ]

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in Conditions 71.5.b(ii) and 71.5.b(iii), including the date, start time, and end time for engine operation for the purposes specified in Conditions 71.5.b(ii) and 71.5.b(iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in Conditions 71.5.b(ii) and 71.5.b(iii).

(vii) Hours spent for operation for the purpose specified in Condition 71.5.c(ii), including the date, start time, and end time for engine operation for the purposes specified in Condition 71.5.c(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in Condition 69.5 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in Condition 69.5 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

[40 CFR 63.6640(h)(1)(i)–(ix), Subpart ZZZZ]

b. Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

[40 CFR 63.6640(h)(2), Subpart ZZZZ]

c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the EPA at the appropriate address listed in 40 CFR 63.13.

[40 CFR 63.6640(h)(3), Subpart ZZZZ]

73.2. Report all deviations as defined in 40 CFR 63.6675 in the operating report required by Condition 114;

[40 CFR 63.6650(f), Subpart ZZZZ]

73.3. 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 CFR 63.6640(e), Subpart ZZZZ]

73.4. Report under Condition 113 any failure to perform the management practice on the schedule required in Condition 70.1 and the federal, state or local law under which the risk was deemed unacceptable (see Condition 70.3).

[40 CFR 63, Footnote 2 to Table 2d, Subpart ZZZZ]

NESHAP Subpart JJJJJJ – Area Source Boilers

74. NESHAP Subpart JJJJJJ Applicability and General Requirements. The Permittee shall comply with the applicable requirements for existing (EU ID 3) industrial oil boilers located at an area source of HAP emissions.

[18 AAC 50.040(c)(39), 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.11193, 63.11194(a) and (b), 63.11200, & 63.11237, Subpart JJJJJJ]

74.1. At all times the Permittee 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 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 CFR 63.11205(a), Subpart JJJJJJ]

75. NESHAP Subpart JJJJJJ Standards. For EU ID 3 listed in Table A, the Permittee must comply with the management practices and work practice standards below. These standards apply at all times.

[18 AAC 50.040(j) and 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.11201, Subpart JJJJJJ]

75.1. Conduct a tune-up of the boiler biennially as specified in Condition 76.2.

[40 CFR 63.11201(b) & Table 2, Item 4, Subpart JJJJJJ]

76. NESHAP Subpart JJJJJJ Continuous Compliance Requirements. For EU ID 3, the Permittee shall demonstrate continuous compliance with the work practice and management practice standards in Condition 75 as follows:

[18 AAC 50.040(j) and 50.326(j)]
[40 CFR 71.6(a)(3)(i)]

76.1. You must conduct a performance tune-up according to Condition 76.2 and keep records as required in Condition 78 to demonstrate continuous compliance. You must conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

[40 CFR 63.11223(a), Subpart JJJJJJ]

76.2. You must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in Conditions 76.2.a through 76.2.g. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

[40 CFR 63.11223(b), Subpart JJJJJJ]

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months).

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).

d. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

f. Maintain onsite and submit, if requested by EPA or the Department, a report containing the information in Conditions 76.2.f(i) through 76.2.f(iii).

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

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

g. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

[40 CFR 63.11223 (b)(1)–(7), Subpart JJJJJJ]

77. NESHAP Subpart JJJJJJ Notification Requirements. For EU ID 3, the Permittee must submit to the Department and EPA the following notifications:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(c)(3)(iii)]

77.1. If the Permittee has switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within NESHAP Subpart JJJJJJ or in the boiler switching out of NESHAP Subpart JJJJJJ due to a change to 100 percent natural gas, the Permittee must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the change. The notification must identify:

[40 CFR 63.11225(g), Subpart JJJJJJ]

a. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels or were physically changed, and the date of the notice.

b. The date upon which the fuel switch or physical change occurred.

[40 CFR 63.11225(g)(1) and (2), Subpart JJJJJJ]

78. NESHAP Subpart JJJJJJ Recordkeeping Requirements. For EU ID 3, the Permittee shall keep records as follows

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(c)(3)(ii)]

78.1. You must maintain the records specified in Conditions 78.1.a through 78.1.d.

[40 CFR 63.11225(c)(1), Subpart JJJJJJ]

a. As required in 40 CFR 63.10(b)(2)(xiv), you must keep a copy of each notification and report submitted to comply with NESHAP Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

[40 CFR 63.11225(c)(1), Subpart JJJJJJ]

b. You must keep records to document conformance with the work practices and management practices, as specified in Conditions 78.1.b(i) and 78.1.b(ii).

[40 CFR 63.11225(c)(2), Subpart JJJJJJ]

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report.

[40 CFR 63.11225(c)(2)(i) and (iii), Subpart JJJJJJ]

c. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

[40 CFR 63.11225(c)(4), Subpart JJJJJJ]

d. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Condition 74.1, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.11225(c)(5), Subpart JJJJJJ]

78.2. Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

[40 CFR 63.11225(d), Subpart JJJJJJ]

79. NESHAP Subpart JJJJJJ Reporting Requirements. For EU ID 3, the Permittee shall report, as follows:

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(c)(3)(iii)]

79.1. You must prepare, by March 1, and submit to the EPA and the Department upon request, a biennial compliance certification report for the previous two calendar years containing the information specified in Conditions 79.1.a and 79.1.b.

[40 CFR 63.11225(b), Subpart JJJJJJ]

a. Company name and address;

b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of NESHAP Subpart JJJJJJ. Your notification must include the following certification(s) of compliance, as applicable, and be signed by a responsible official:

[40 CFR 63.11225(b)(1) and (2), Subpart JJJJJJ]

(i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

(ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

[40 CFR 63.11225(b)(2)(i) and (ii), Subpart JJJJJJ]

General Federal Requirements

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

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

Risk Management Plan (RMP) Requirements, 40 CFR 68

81. RMP Requirements. The Permittee shall comply with the applicable requirements of 40 CFR 68, including 40 CFR 68.155 through 68.185 for all covered processes. The RMP shall be submitted in the method and format to the central point specified by EPA as of the date of submission. The Permittee shall revise and update the RMP submitted in accordance with 40 CFR 68.190.

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)(3) & (c)(6)]
[40 CFR 68.150 – 68.195]

40 CFR Part 82 Protection of Stratospheric Ozone

82. Subpart F – Recycling and Emissions Reduction. The Permittee shall comply with the applicable standards for recycling and emission reduction of refrigerants set forth in 40 CFR 82, Subpart F.

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

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

[18 AAC 50.040(d) & 50.326(j)]
[40 CFR 82.174(b)-(d), Subpart G]

84. Subpart H – Halon Emissions Reduction. The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).

[18 AAC 50.040(d) & 50.326(j)]
[40 CFR 82.270(b)-(f), Subpart H]

NESHAP Applicability Determinations

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

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

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

Section 5. General Conditions

Standard Terms and Conditions

86. 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)]

87. 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)]

88. 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)]

89. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-403.

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

90. **Assessable Emissions.** For each period from July 1 through the following June 30, the Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions, as determined by the Department under 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of the stationary source's

90.1. potential to emit of 247 tpy; or

90.2. projected annual rate of emissions, in tpy, based upon actual annual emissions for the most recent calendar year, or another 12-month period approved in writing by the Department, when demonstrated by credible evidence of actual emissions, based upon the most representative information available from one or more of the following methods:

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, including appropriate vendor-provided emissions factors when sufficient documentation is provided.

[18 AAC 50.040(j)(4), 50.035, 50.326(j)(1), 50.346(b)(1), 50.410, & 50.420]
[40 CFR 71.5(c)(3)(ii)]

91. **Assessable Emission Estimates.** The Permittee shall comply as follows:

91.1. No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions, as determined in Condition 90.2. Submit actual emissions estimates in accordance with the submission instructions on the Department's Standard Permit Conditions web page http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-i-submission-instructions/.

91.2. The Permittee shall include with the assessable emissions report all the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.

91.3. 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 in Condition 90.1.

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

92. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 17, 22 and 27:

92.1. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

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

92.3. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

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

93. 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)]

94. 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)]

94.1. 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 94.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

94.2. The Permittee shall report according to Condition 96.4.

95. 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)]

96. 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 50.040(j)(4), 50.110, 50.326(j)(3), & 50.346(a)]
[40 CFR 71.6(a)(3)]

96.1. **Monitoring**. The Permittee shall monitor as follows:

a. 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 96.

96.2. 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 96; or

b. the Department notifies the Permittee that it has found a violation of Condition 96.

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

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 96; and

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

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

a. With each operating report under Condition 114, the Permittee shall include a brief summary report which must include the following for the period covered by the report:

(i) the number of complaints received;

(ii) the number of times the Permittee or the Department found corrective action necessary;

(iii) the number of times action was taken on a complaint within 24 hours; and

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

b. 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.

c. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 113.

97. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair, as defined in 18 AAC 50.235(d), causes emissions in excess of a technology-based emission standard[15] listed in Conditions 34, 35, 38, 65, and 0 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 113 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 113.

[18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 CFR 71.6(c)(6)]

Open Burning Requirements

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

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

98.2. Compliance with this condition shall be an annual certification conducted under Condition 115.

[18 AAC 50.065, 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)]

[15] *Technology-based emission standard* means a best available control technology standard (BACT); a lowest achievable emission rate standard (LAER); a maximum achievable control technology standard established under 40 CFR 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

99. 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)]

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

[18 AAC 50.220(b)]

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

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

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

101.1. 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 CFR 60.

[18 AAC 50.220(c)(1)(A) & 50.040(a)]
[40 CFR 60]

101.2. 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 CFR 61.

[18 AAC 50.040(b) & 50.220(c)(1)(B)]
[40 CFR 61]

101.3. 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 CFR 63.

[18 AAC 50.040(c) & 50.220(c)(1)(C)]
[40 CFR 63]

101.4. 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 10 to record data.

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

101.5. 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 CFR 60, Appendix A.

[18 AAC 50.040(a)(3) & 50.220(c)(1)(E)]
[40 CFR 60, Appendix A]

101.6. Source testing for emissions of PM_{10} must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M, Methods 201 or 201A and 202.

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

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

[18 AAC 50.040(c)(24) & 50.220(c)(2)]
[40 CFR 63, Appendix A, Method 301]

102. 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 emissions 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)]

103. Test Exemption. The Permittee is not required to comply with Conditions 105, 106 and 107 when the exhaust is observed for visible emissions by Method 9 or the Smoke/No Smoke Plan.

[18 AAC 50.345(a)]

104. 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)]

105. Test Plans. Except as provided in Condition 103, 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 emissions 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 99 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)]

106. Test Notification. Except as provided in Condition 103, 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)]

107. Test Reports. Except as provided in Condition 103, 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 110. 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)]

108. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6 and 21.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 7. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

109. 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 CFR 60.7(f), Subpart A, 40 CFR 71.6(a)(3)(ii)(B)]

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

109.2. Records of all monitoring required by this permit, and information about the monitoring including:

a. the date, place, and time of sampling or measurements;

b. the date(s) analyses were performed;

c. the company or entity that performed the analyses;

d. the analytical techniques or methods used;

e. the results of such analyses; and,

f. the operating conditions as existing at the time of sampling or measurement.

Reporting Requirements

110. 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.

110.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if the person providing the electronic signature

a. uses a security procedure, as defined in AS 09.80.190, that the Department has approved; and

b. accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.205, 50.326(j)(3), 50.345(a) & (j), & 50.346(b)(10)]
[40 CFR 71.6(a)(3)(iii)(A)]

111. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall submit to the Department one certified copy of reports, compliance certifications, and other submittals required by this permit. The Permittee may submit the documents electronically or by hard copy.

111.1. Submit the certified copy of reports, compliance certifications, and other submittals in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-xvii-submission-instructions/.

[18 AAC 50.326(j)(3) & 50.346(b)(10)]
[40 CFR 71.6(a)(3)(iii)(A)]

112. 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 CFR 71.5(a)(2) & 71.6(a)(3)]

113. Excess Emissions and Permit Deviation Reports. The Permittee shall report excess emissions and permit deviation reports as follows:

113.1. **Excess Emissions Reporting.** Except as provided in Condition 96, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit, as follows:

a. In accordance with 18 AAC 50.240(c), as soon as possible, report

(i) excess 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. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 113.1.d.

d. Report all other excess emissions not described in Conditions 113.1.a, 113.1.b, and 113.1.c within 30 days after the end of the month during which the excess emissions occurred or as part of the next routine operating report in Condition 114 for excess emissions that occurred during the period covered by the report, whichever is sooner.

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

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

113.2. **Permit Deviations Reporting**. For permit deviations that are not "excess emissions," as defined under 18 AAC 50.990:

a. Report according to the required deadline for failure to monitor, as specified in other applicable conditions of this permit (Conditions ??)

b. Report all other permit deviations within 30 days after the end of the month during which the deviation occurred or as part of the next routine operating report in Condition 114 for permit deviations that occurred during the period covered by the report, whichever is sooner.

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

113.3. **Notification Form**. When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online 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. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

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

114. Operating Reports. During the life of this permit[16], the Permittee shall submit to the Department an operating report in accordance with Conditions 110 and 111 by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

114.1. 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.

114.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 114.1, the Permittee shall identify:

a. the date of the excess emissions or permit deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

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

114.3. When excess emissions or permit deviation reports have already been submitted under Condition 113 during the period covered by the operating report, the Permittee shall either

a. include a copy of those excess emissions or permit deviation reports with the operating report; or

b. cite the date(s) of those reports.

114.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 2.4.e, 2.5.c, 2.8.a, 7.2, and 10.1 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.

114.5. **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)(3)]
[40 CFR 71.6(a)(3)(iii)(A)]

115. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 111.

115.1. 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;

115.2. **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.

115.3. In addition, submit a copy of the report directly to EPA Region 10, ATTN: Air Toxics and Enforcement Section, Mail Stop 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 CFR 71.6(c)(5)]

116. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH_3, NOx, PM_{10}, $PM_{2.5}$, SO_2, VOC and lead (Pb) and lead compounds, as follows:

116.1. **Annual inventory**. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 250 tpy of NH_3, PM_{10}, $PM_{2.5}$, or VOC; or

b. 2,500 tpy of CO, NOx, or SO_2.

116.2. **Triennial inventory**. Every third year by April 30, if the stationary source's potential to emit (except actual emissions for Pb) for the previous calendar year equals or exceeds:

a. For stationary sources located in Attainment and Unclassifiable Areas:

(i) 0.5 tpy of actual Pb; or

(ii) 1,000 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NOx or VOC.

b. For stationary sources located in Nonattainment Areas:

(i) 0.5 tpy of actual Pb; or when located in a CO nonattainment area, 100 tpy of CO; or

(ii) 1,000 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NOx or VOC; or as specified in Conditions 116.2.b(iv) through 116.2.b(viii);

(iv) 70 tpy of SO_2, NH_3, $PM_{2.5}$, NOx or VOC in $PM_{2.5}$ serious nonattainment areas; or

(v) 70 tpy of PM_{10} in PM_{10} serious nonattainment areas; or

(vi) 50 tpy of NOx or VOC in O_3 serious nonattainment areas; or

(vii) 25 tpy of NOx or VOC in O_3 severe nonattainment areas; or

(viii) 10 tpy of NOx or VOC in O_3 extreme nonattainment areas.

116.3. For reporting under Condition 116.2, the Permittee shall report the annual emissions and the required data elements under Condition 116.4 every third year for the previous calendar year as scheduled by the EPA.[17]

116.4. For each emissions unit and the stationary source, include in the report the required data elements[18] contained within the form included in the Emission Inventory Instructions available at the Department's AOS system on the Point Source Emission Inventory web page at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory

116.5. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-xv-and-xvi-submission-instructions/.

[18 AAC 50.040(j)(4), 50.200, 50.326(j)(3), & 50.346(b)(8)]
[40 CFR 51.15, 51.30(a)(1) & (b)(1) & Appendix A to 40 CFR 51 Subpart A]

117. NSPS and NESHAP Reports. The Permittee shall comply with the following:

117.1. **Reports:** Except for previously submitted reports and federal reports and notices submitted through EPA's Central Data Exchange (CDX) and Compliance and Emissions Data Reporting Interface (CEDRI) online reporting system, attach to the operating report required by Condition 114 for the period covered by the report, a copy of any NSPS and NESHAP reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the reports submitted during the reporting period.

117.2. **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 50.040(j)(4) & 50.326(j)(4)]
[40 CFR 60.13, 63.10(d) & (f) & 40 CFR 71.6(c)(6)]

[17] The calendar years for which reports are required are based on the triennial reporting schedule in 40 C.F.R. 51.30(b)(1), which requires states to report emissions data to the EPA for inventory years 2011, 2014, 2017, 2020, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2020 is due April 30, 2021, triennial emission inventory report for 2023 is due April 30, 2024, etc.).

[18] The required data elements to be reported to the EPA are outlined in 40 C.F.R. 51.15 and Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A.

Section 8. Permit Changes and Renewal

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

118.1. 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;

118.2. The information shall be submitted to the Part 70 Operating Permit Program, U.S. EPA Region 10, ATTN: Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

118.3. 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

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

[18 AAC 50.040(j)(7) & 50.326(a) & (j)(3), & 50.346(b)(7)]
[40 CFR 71.10(d)(1)]

119. 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)(4)]
[40 CFR 71.6(a)(8)]

120. 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 CFR Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

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

120.2. 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;

120.3. The change shall not qualify for the shield under 40 CFR 71.6(f);

120.4. 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 CFR 71.6(a)(12)]

121. Operational Flexibility. The Permittee may make Section 502(b)(10)[19]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):

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

121.2. 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.

121.3. The permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 121.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(13)]

122. Permit Renewal. To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than [18 months before the expiration date of this permit] 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 CFR 71.7(b) and 71.5(a)(1)(iii).

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

[19] As defined in 40 CFR 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

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

123.1. included and specifically identified in the permit; or

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

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

124. The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 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

124.1. An enforcement action;

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

124.3. denial of an operating permit renewal application.

[18 AAC 50.040(j), 50.326(j) & 50.345(a) & (c)]

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

[18 AAC 50.040(j)(3) & (4) & 50.326(j)]
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

126. 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)]

127. 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

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

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

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

127.4. 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)]

128. 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 CFR 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.

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

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

129.2. 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 CFR 71.6(f)(3)(i) & (ii)]

130. Table B identifies the emissions 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 including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

[18 AAC 50.326(j)]
[40 CFR 71.6(f)(1)(ii)]

Table B - Permit Shields Granted

EU ID(s)	Non-Applicable Requirements	Reason for Non-Applicability
4 and 16	40 CFR 60 Subpart IIII	The Subpart does not apply to engines that were constructed before July 11, 2005.
22	40 CFR 60.102a(f)(1)	The sulfur recovery plant has a capacity of less than 20 LTD.
	40 CFR 60.102a(f)(2)	The sulfur recovery plant does not have either an oxidation control system or a reduction control system. The only vent to the atmosphere from the SRU has negligible if any emissions of sulfur compounds.

[18 AAC 50.326(j)]
[40 CFR 71.6(f)(1)(ii)]

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form." (https://www3.epa.gov/ttnemc01/methods/webinar8.pdf)

- 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 visible emissions 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, note in the Comments column whether the Plume is "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 color of clouds and 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.
- Observer's Affiliation: observer's employer.
- Certifying Organization, Certified By, Date: name of "smoke school," certifying observer, and date of most recent certification.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY DIVISION - VISIBLE EMISSIONS OBSERVATION FORM

Page No.__________

Source Name | Type of Source
Address
City | State | Zip
Phone # (Key Contact) | Source ID Number
Process Equipment | Operating Mode
Control Equipment | Operating Mode
Describe Emission Point
Height above ground level | Height relative to observer | Inclinometer Reading
Distance From Observer | Direction From Observer: Start | End
Describe Emissions & Color: Start | End
Visible Water Vapor Present? No | Yes — If yes, determine approximate distance from the stack exit to where the plume was read
Point in Plume at Which Opacity Was Determined
Describe Plume Background: Start | End — Background Color: Start | End
Sky Conditions: Start | End
Wind Speed | Wind Direction From: Start | End
Ambient Temperature | Wet Bulb Temp | RH percent

NOTES: 1 Stack or Point Being Read 2 Wind Direction From 3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks

Observation Date | Start Time | End Time

Sec / Min	0	15	30	45	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
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 Name:
Signature:
Title | Date

Print Observer's Name
Observer's Signature | Date
Organization
Certified By: | Date

Section 12. SO_2 Material Balance Calculation

If the sulfur content of a fuel 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%$_{dry}$O2, $_{exhaust}$**] = 20.9 - _____ = _____

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

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

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

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

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Condition 13.3.a. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (vol%$_{dry}O_2$, exhaust) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 CFR 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. Notification Form

Petro Star Valdez Refinery — **Stationary Source Name**

AQ0311TVP03 — **Air Quality Permit No.**

Petro Star, Inc.

Company Name

When did you discover the Excess Emissions/Permit Deviation?

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

When did the event/deviation occur?

Begin: Date: _____ / _____ / _____ Time: _____ : _____ (please use 24-hr clock.)

End: Date: _____ / _____ / _____ Time: _____ : _____ (please 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 emissions 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

(e) **Type of Incident** (please check all that apply and provide the value requested):

☐ Opacity _____ % ☐ Venting _____ gas/scf ☐ Control Equipment Down
☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____
☐ Marine Vessel Opacity ☐ Flaring _____

(f) **Corrective Actions:**

Describe actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence. Attach supporting information if necessary

(g) **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):

☐ Emissions Unit-Specific Requirements

☐ Stationary Source-Wide Specific Requirements

☐ Monitoring/Recordkeeping/Reporting Requirements

☐ General Source Test Requirements

☐ Compliance Certification Requirements

☐ Standard/ Generally Applicable Requirements

☐ Insignificant Emissions Unit Requirements

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

(b) **Emissions Unit Involved**:

Identify the emissions 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. Attach supporting information if necessary.

(d) **Corrective Actions**:
Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence. Attach supporting information if necessary.

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). Read and sign the certification at the bottom of the form above. (See Condition 110.)*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at
http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/

If submitted online, report must be submitted by an authorized E-Signer for the stationary source (according to Condition 110).

[18 AAC 50.346(b)(3)]

Section 14. EEMSP Summary Report Form

FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A-General Provisions]

Pollutant *(Circle One)*: SO_2 NO_X TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company:
Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission Data Summary [1]	**CMS Performance Summary** [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ..... ____
b. Control equipment problems ..... ____	b. Non-Monitor equipment malfunctions ..... ____
c. Process problems ..... ____	c. Quality assurance calibration ..... ____
d. Other known causes ..... ____	d. Other known causes ..... ____
e. Unknown causes ..... ____	e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... ____ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

Note: *On a separate page, describe any changes since last quarter in CMS, process or controls.*

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ *Date*: _____

Title: _____