DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0267TVP02 Issue Date: Public Comment Draft - August 30, 2011
Expiration Date: Five Years

The Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **ConocoPhillips Alaska, Inc.** , for the operation of the **Kuparuk Central Production Facility #1**.

The Kuparuk Central Production Facility #1 and Drill Site 1E, Drill Site 1J, and Drill Site 1R are considered one stationary source for purposes of determining applicability with the modification requirements of 18 AAC 50.302.

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

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

Citations listed herein are contained within 18 AAC 50 dated April 13, 2011, Register 198. All Federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

Upon effective date of this permit, Operating Permit No. AQ0267TVP01 expires.

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

John F. Kuterbach, Manager
Air Permits Program

Table of Contents

List of Abbreviations Used in this Permit

AAC .....Alaska Administrative Code

ADEC.....Alaska Department of Environmental Conservation

AS.....Alaska Statutes

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

BACT .....Best Available Control Technology

BHp .....Boiler Horsepower

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

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

CAA, ...The Act...Clean Air Act

CO .....Carbon Monoxide

CPF.....Central Production Facility

DS.....Drill Site

dscf .....Dry standard cubic foot

EPA .....US Environmental Protection Agency

EU.....Emission Unit

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

GPH.....gallons per hour

H2S.....Hydrogen Sulfide

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

hp.....Horsepower

ID.....Emission Unit Identification Number

ISO .....Operating conditions corresponding to sea level and 59 deg. F.

kPa.....kilopascals

kW .....kilowatts

LAER .....Lowest Achievable Emission Rate

LHV.....Lower Heating Value

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

MMBtu/hr....Million British thermal units per hour

MMSCF.....Million standard cubic feet

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

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

NAICS .....North American Industry Classification System

NOX .....Nitrogen Oxides

NSPS .....Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]

O & M .....Operation and Maintenance

O2 .....Oxygen

PAL .....Plantwide Applicability Limitation

PM-10.....Particulate Matter less than or equal to a nominal ten microns in diameter

ppm .....Parts per million

ppmv, ppmvd.....Parts per million by volume on a dry basis

PS.....Performance Specification

PSI .....Pounds per Square Inch

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

PSD.....Prevention of Significant Deterioration

PTE.....Potential to Emit

RM.....Reference Method

SIC.....Standard Industrial Classification

SO2.....Sulfur dioxide

TPH .....Tons per hour

TPY .....Tons per year

VOC.....volatile organic compound [VOC as defined in 40 C.F.R. 51.100(s)]

VOL.....volatile organic liquid [VOL as defined in 40 C.F.R. 60.111b, Subpart Kb]

vol%.....volume percent

wt%.....weight percent

Section 1. Stationary Source Information

Identification

Names and Addresses

Permittee:	ConocoPhillips Alaska, Inc. P.O. Box 100360 Anchorage, AK 99510-0360
Stationary Source Name:	Kuparuk Central Production Facility #1
Location:	78˚ 03′ 80″ North; 40˚ 20′ 00″ East
Physical Address:	Section 9, T11N, R10E (Production Pad), Umiat Meridian Sections 16 & 21, T11N, R10E (DS1E) Section 35, T11N, R10E (DS1J) Kuparuk Oil Field
Owner:	ConocoPhillips Alaska, Inc. 700 G Street (Zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360 Chevron U.S.A. Inc. - Union Oil Company of California 3800 Centerpoint Dr., Ste 100 (zip 99503) P.O. Box 196247 Anc., AK 99519-6247 BP Exploration (Alaska) Inc. 900 E. Benson Blvd. (Zip 99508) P.O. Box 196612 Anchorage, AK 99519-6612 ExxonMobil Alaska Production Inc. 3301 C Street, Suite 400 (Zip 99503) P.O. Box 196601 Anchorage, AK 99519-6601
Operator:	ConocoPhillips Alaska, Inc 700 G Street (zip 99501) P.O. Box 100360 Anchorage, AK 99510-0360
Permittee's Responsible Official	Stephen D. Bradley GKA Operations Manager
Designated Agent:	CT Corporation Systems 9360 Glacier Hwy, Suite 202 Juneau, AK 99801
Stationary Source and Building Contact:	Mark Chaney/Kevin Snow Section 9, T11N, R10E (Production Pad), Umiat Meridian Kuparuk Oil Field, AK (907) 659-7727 N1132@conocophillips.com
Fee Contact:	Tom Manson, Senior Environmental Coordinator P.O. Box 100360 Anchorage, AK 99510-0360 (907) 263-4627 Tom.W.Manson@conocophillips.com
Permit Contact:	Brad Thomas P.O. Box 100360 Anchorage, AK 99510-0360 (907) 263-4741 Brad.C.Thomas@conocophillips.com
Process Description SIC Code: NAICS	1311 - Petroleum and Natural Gas Production 211111 - Crude Petroleum and Natural Gas Extraction.

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

Section 2. Emission Unit Inventory and Description

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

Table A - Emission Units Inventory

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Commence Construction/ Modification Date
Group I - Gas Turbines				
1	C-2101-A	GE Frame 3 (MS3002K-HE) Gas Lift Compressor	16,260 hp ISO	5/2004
2	C-2101-B	GE Frame 3 (MS3002K-HE) Gas Lift Compressor	16,260 hp ISO	10/2003
3	C-2101-C	GE Frame 3 (MS3002K-HE) Gas Lift Compressor	16,260 hp ISO	11/2004
4	G-201-A	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	1979
5	G-201-B	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	1979
6	G-201-C	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	1979
7	G-201-D	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	1979
8	G-3201-E	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	10/1981
9	G-3201-F	EGT (Ruston) TB5000 Electric Generator (Dual fired)	4,900 hp ISO	10/1981
10	P-2202-A	EGT (Ruston) TB5400 Water Injection Pump	5,400 hp ISO	5/1993
11	P-2202-B	EGT (Ruston) TB5400 Water Injection Pump	5,400 hp ISO	5/1993
12	P-CL07-A	EGT (Ruston) TB5400 Water Injection Pump (Dual fired)	5,400 hp ISO	5/1993
13	P-CL07-B	EGT (Ruston) TB5400 Water Injection Pump (Dual fired)	5,400 hp ISO	5/1993
14	G-3203	GE Frame 6 (PG6561 B) Gas Turbine Electric Generator	53,500 hp (39,930 kW) ISO	1999

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Commence Construction/ Modification Date
Group II - Gas-Fired Heaters (Excluding Drill Site Heaters)				
15	H-201	Broach Emergency Heater (Dual fired)	27.8 MMBtu/hr [heat input, LHV]	1979
16	G1-14-01	Born Crude Heater (KUTP)	44.4 MMBtu/hr [heat input, LHV]	12/1984
17	H-3204	Kvaerner Process Systems Fuel Gas Heater	9.7 MMBtu/hr [heat input, LHV]	1999
18	H-102A	ICE Air Heater	4.375 MMBtu/hr [heat input, LHV]	6/2001
Group III – Liquid Fuel-Fired Equipment				
19	G-701-A	Waukesha Emergency Generator	1,086 hp	1980
20	G-701-B	Waukesha Emergency Generator	1,086 hp	1980
21	P-CL04-ECC	GM Detroit Allison Water Booster Pump	215 hp	10/1985
22	P-1A02	GM Detroit Allison Freeze Protection Pump (1A)	240 hp	Prior to 7/11/05 (1)
23	P-1F02	GM Detroit Allison Freeze Protection Pump (1F)	318 hp	Prior to 7/11/05 (1)
24	P-1G02	GM Detroit Allison Freeze Protection Pump (1G)	318 hp	Prior to 7/11/05 (1)
25	P-1L02	GM Detroit Allison Freeze Protection Pump (1L)	300 hp	Prior to 7/11/05 (1)
26	P-1Q02	GM Detroit Allison Freeze Protection Pump (IQ)	300 hp	Prior to 7/11/05 (1)
27	P-1R02	GM Detroit Allison Freeze Protection Pump (1R)	300 hp	Prior to 7/11/05 (1)
28	P-1Y02	GM Detroit Allison Freeze Protection Pump (1Y)	300 hp	Prior to 7/11/05 (1)
Group IV – Flares				
29	H-101B	McGill Emergency Flare	1.6 MMscf/day (Pilot/Purge/Assist) Combined Total for all flares	10/1981
30	H-KF01	Kaldair I-58-VS Control Device		1991
31	H-KF02	Kaldair I-87-FS Control Device		1991

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Commence Construction/ Modification Date
32	H-CR01A	Control Device		Unknown
33	H-CR01B	McGill Emergency Flare		1/1985
34	PF1	Portable Flare	150 Mscf/day 16.2 MMscf/yr	8/15/05
Group V – Incinerators				
35	H-250	Comptro Incinerator w/ supplemental gas-fired burners: Primary Burner #1 Primary Burner #2 Secondary Burner	1,300 lb/hr 0.8 MMBtu/hr 0.8 MMBtu/hr 2.0 MMBtu/hr	1980
36	H-347	Comptro Incinerator with supplemental gas-fired burners: Primary Burner Secondary Burner	900 lb/hr 1.95 MMBtu/hr 1.33 MMBtu/hr	1980
Group VI - Other Equipment (Drill Site Heaters)				
37	H-1A01	Latoka Drill Site Heater (1A)	16.4 MMBtu/hr [heat input, LHV]	12/1981
38	H-1B01	Latoka Drill Site Heater (1B)	16.4 MMBtu/hr [heat input, LHV]	12/1981
39	H-2V01	CE NATCO Drill Site Heater (1C)	14.5 MMBtu/hr [heat input, LHV]	1984
40	H-3F01	CE NATCO Drill Site Heater (1D)	19.6 MMBtu/hr [heat input, LHV]	1985
41	H-1E01	Latoka Drill Site Heater (1E)	16.4 MMBtu/hr [heat input, LHV]	12/1981
42	H-1E02	GTS Energy Production Heater (1E)	30.0 MMBtu/hr [heat input, LHV]	8/15/05
43	H-1F01	BS & B Drill Site Heater (1F)	14.9 MMBtu/hr [heat input, LHV]	10/1982

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Commence Construction/ Modification Date
44	H-1G01	BS & B Drill Site Heater (1G)	14.9 MMBtu/hr [heat input, LHV]	10/1982
45	H-1F-1901	Latoka Drill Site Heater (1H)	16.4 MMBtu/hr [heat input, LHV]	6/1982
46	H-1J01A	Petrochem Development Production Heater (1J)	36.8 MMBtu/hr [heat input, LHV]	12/1/04
47	H-1J01B	Petrochem Development Production Heater (1J)	36.8 MMBtu/hr [heat input, LHV]	12/1/04
48	H-1Q01	BS&B Drill Site Heater (1Q)	21.0 MMBtu/hr [heat input, LHV]	1985
49	H-1R01	BS&B Drill Site Heater (1R)	17.2 MMBtu/hr [heat input, LHV]	1985
50	H-1Y01	BS&B Drill Site Heater (1Y)	14.9 MMBtu/hr [heat input, LHV]	3/1983
Group VII – NSPS Storage Tanks				
51	T-201	Arctic No. 1 Diesel	2,000 bbls	1979
52	G1-19501	Arctic (No. 1) Diesel (KUTP)	3,000 bbls	1983
53	G1-19502	Arctic (No. 1) Diesel (KUTP)	3,000 bbls	1983
54	G1-19503	Arctic (No. 1) Diesel (KUTP)	3,000 bbls	1983
55	G1-19504	Arctic (No. 1) Diesel (KUTP)	9,900 bbls	1983
Group VIII – Portable Storage Tanks				
56		Temporary Crude Oil Storage Tank(s)	<10,000 gallons each	Unknown
Topping Plant				
57		Kuparuk Unit Topping Plant (KUTP)		8/1983

EU ID	Emission Unit Name	Emission Unit Description	Rating/Size	Commence Construction/ Modification Date
Group IX – Drilling Rig (Portable Emission Units) at Drill Sites 1E and 1J				
58		Drill Rig Engines	Various	Prior to 7/11/05[4]
59		Drill Rig Heaters and Boilers	Various	Prior to 7/11/05 [1]
60		Rig Camp Engines	Various	Prior to 7/11/05 [1]
Group X– Generic Well Servicing Equipment and Well Frac Units (Portable Emission Units) at Drill Sites 1E and 1J				
61		Well Servicing Heaters	Various	Prior to 7/11/05 [1]
62		Well Servicing Engines	Various	Prior to 7/11/05 [1]
63		Well Frac Unit Engines	Various	Prior to 7/11/05 [1]
Group XI – DS1R Well Injection Pump IC Engines				
64	KS5010A	Detroit Diesel 8083-7300 Well Injection Pump Engine	440 hp	10/2000
65	KS5010B	Detroit Diesel 8083-7300 Well Injection Pump Engine	440 hp	10/2000

1- Install date not expressly provided by Permittee, only the "construction commenced prior to" date has been specified as indicated.

2- Units identified as "dual fired" are plumbed to run on liquid fuel in an emergency.

3- Date construction commenced (if known) or the startup date of the unit. If a unit has been modified as defined by AS 46.14.990, then the most recent modification date is provided. Relocation of drill site heaters does not constitute a modification. See the Statement of Basis for information regarding the GE Frame 3 turbine modification history.

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

Section 3. State Requirements

Visible Emissions Standards

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 - 34 and 37 - 50, 59, 60, 64, and 65 listed in Table A to reduce visibility - the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1. For EU IDs 59, 60, 64, and 65, monitor, record and report in accordance with Conditions 6 - 8.

1.2. For EU IDs 1 - 3, 10, 11, 14, 16, 17, 18, and 37 - 50, burn only gas as fuel. Monitoring for these emission units shall consist of a statement in each operating report under Condition 110 that each of these emission unit(s) fired only gas for the period covered by the report. Report under Condition 109 if any fuel is burned other than gas.

1.3. For EU IDs 19 - 28, as long as they do not exceed the limits in Condition 18, monitoring shall consist of a statement of compliance with the visible emissions standard in the annual compliance certification submitted under Condition 111 for the period covered by the report.

1.4. For EU IDs 4 - 9, 12, 13, and 15 use gas as the primary fuel. Monitoring for these emission unit(s) shall consist of a statement in each operating report required by Condition 110 that each of these emission unit(s) fired only gas for the period covered by the report. If the unit operated on a back-up liquid fuel at any time during the operating report period, then monitor, record and report according to Condition 17.

1.5. For EU IDs 29 - 34 monitor, record and report in accordance with Condition 9.

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

2. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, - the exhaust of EU IDs 35 and 36, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

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

2.1. For EU IDs 35 and 36 (incinerators), the Permittee shall perform a Method 9 visible emission observation at least once every month in accordance with Condition 3.1 and maintain records and submit reports in accordance with Conditions 4 and 5.

2.2. For EU IDs 35 and 36 (incinerators) observe the exhaust to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

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

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

c. Smoke Observed. If smoke is observed in excess of 15 % opacity during any single reading perform corrective action required under Condition 2.3.

2.3. If visible emissions are present in the exhaust during an observation performed under the Condition 2.2, then the Permittee shall:

a. perform a Method 9 reading according to Condition 3.1 and

b. initiate actions to eliminate smoke from the source within 24 hours of the observation;

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

d. after completing the actions required under Condition 2.3,

(i) take Smoke/No Smoke observations in accordance with Condition 2.2.

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

(B) continue as described in Condition 2.2.b.

e. If Method 9 readings give results at or above 20% opacity, perform a Source Test for particulate matter with six months of the initial occurrence in accordance with Condition 15.

2.4. Record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

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

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

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

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

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

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

2.5. Report the number of days that Smoke/No Smoke observations were made and which days, if any, that smoke was observed; and

a. a summary of any monitoring or recordkeeping required under Condition 2.3.c that was not done.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units *- EU IDs 4 - 9, 12, 13, 15*[1] and *EU IDs 19 - 28, 35, 36, 59, 60, 64, and 65.*

3. Visible Emissions Monitoring. The Permittee shall observe the exhaust for visible emissions using the Method 9 Plan under Condition 3.1. The Permittee may for each unit elect to continue the visible emissions monitoring schedule in effect from the previous permit at the time a renewed permit is issued, if applicable.

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

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

a. **First Method 9 Observation**. For any unit, observe exhaust for 18 minutes within six months after the issue date of this permit

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

(ii) For each existing emission unit that exceeds the operational threshold in Condition 1.4 observe the exhaust for 18 minutes of operations within 30 days after the calendar month during which that threshold has been exceeded, or within 30 days of the unit's next scheduled operations, whichever is later

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

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

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

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

[1] EU IDs 4 through 9, 12, 13, and 15 are dual fired. Compliance with Condition 3 is required when operated using liquid fuels.

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

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

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

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

4. Visible Emissions Recordkeeping. When Method 9 monitoring is conducted under Condition 3.1, the Permittee shall keep records as follows:

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

4.1. the observer shall record:

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

b. the time, estimated distance to the emissions location, 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) on the sheet at the time opacity observations are initiated and completed;

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

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

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

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

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

5. Visible Emissions Reporting. When Method 9 monitoring is conducted under condition 3.1, the Permittee shall report visible emissions as follows:

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

5.1. Include in each operating report under Condition 110 for the period covered by the report:

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

b. a summary to include:

(i) number of days observations were made;

(ii) highest six-minute average observed; and

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

c. a summary of any monitoring or record keeping required under Conditions 3 that was not done;

5.2. Report under Condition 109:

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

b. if any monitoring under Condition 3 was not performed when required, report within three days of the date the monitoring was required.

Drill Rig Monitoring, Recordkeeping, and Reporting

6. For each drill rig heater and boiler, monitoring shall consist of an annual statement of compliance with the opacity standard, based on reasonable inquiry, under Condition 111.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]
[Minor Permit No. AQ0267MSS02, Condition 18, 11/13/06]

7. For each rig camp engine, not meeting the definition of a nonroad engine[2] and that combusts more than 13,500 gallons of fuel per consecutive 12 month period as computed in Condition 27.2, the Permittee shall perform periodic Method 9 visible emission observations for that emission unit in accordance with Condition 3.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]
[Minor Permit No. AQ0267MSS02, Condition 18, 11/13/06]

[2] As defined in 18 AAC 50.990.

DS1R Well Injection Pump Monitoring, Recordkeeping, and Reporting

8. For EU IDs 64 and 65, verify compliance with the limit in Condition 1 within 30 days of initial startup after issuance of Minor Permit No. AQ0267MSS03 using either Condition 8.1 or 8.2.

8.1. Obtain a certified manufacturer guarantee that each emission unit will comply with the visible emission standard and attach a copy of the guarantee to the next operating report as described in Condition 110; or

8.2. Conduct a visible emission source test on each emission unit in accordance with Section 11 and Condition 97.4. Attach a copy of the surveillance records to the next operating report as described in Condition 110.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]
[Minor Permit No. AQ0267MSS03, Condition 4, 12/14/2007]

Flares, EU IDs 29 - 34

9. Visible Emissions Monitoring, Recordkeeping, and Reporting. The Permittee shall observe one daylight flare event[1] within 12 months of the preceding flare event observation. If no event exceeds 1 hour within that 12-month period, then the Permittee shall observe the next daylight flare event.

9.1. Monitor flare events using Method 9.

9.2. Record the following information for observed events:

a. the flare(s) EU ID number;

b. results of the Method-9 observations;

c. reason(s) for flaring;

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

e. volume of gas flared.

9.3. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available. If monitoring of a flare event is postponed for any of the reasons described in this condition, the Permittee shall include in the next operating report required by Condition 110 an explanation of the reason the event was not monitored.

9.4. Attach copies of the records required by Condition 9.2 with the operating report required by Condition 110 for the period covered by that report.

9.5. Report under Condition 109 whenever the opacity standard in Condition 1 is exceeded.

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

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

Particulate Matter Emissions Standards

10. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs 1 - 34 and 37 - 50, 59, 60, 64, and 65 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to Standard Conditions and averaged over three hours.

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

10.1. For EU IDs 1 - 3, 10, 11, 14, 16, 17, 18, and 37 - 50, burn only gas as fuel. Monitoring for these emission unit(s) shall consist of a statement in each operating report under Condition 110 that each of these emission unit(s) fired only gas for the period covered by the certification. Report under Condition 109 if any fuel other than gas is burned.

10.2. For EU IDs 19 - 28, as long as they do not exceed the limits in Condition 17, monitoring shall consist of an annual compliance certification under Condition 111 with the particulate matter standard for the period covered by the certification.

10.3. For EU IDs 29 - 34, the Permittee must annually certify compliance under Condition 111 with the particulate matter standard.

10.4. For EU IDs 4 - 9, 12, and 13, use only gas as primary fuel. Monitoring for these emission unit(s) shall consist of a statement in each operating report required in Condition 110 that each of these emission unit(s) fired gas as the primary fuel during the period covered by the report. If operation on a back-up liquid fuel occurred during the period covered by the operating report, the Permittee shall monitor, record and report according to Condition 17.

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

Drill Rig PM Monitoring, Recordkeeping, and Reporting

10.5. For each drill rig heater and boiler, monitoring shall consist of an annual certification of compliance with the particulate matter standard, based on reasonable inquiry.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)]
[Minor Permit No. AQ0267MSS02, Condition 19, 11/13/06]

10.6. For each rig camp engine, not meeting the definition of a nonroad engine[1] and that combusts more than 13,500 gallons of fuel per consecutive 12 month period, the Permittee shall monitor, record, and report particulate matter emissions for that emission unit in accordance with Condition 11 and 12.

[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)]
[Minor Permit No. AQ0267MSS02, Condition 19, 11/13/06]

[1] As defined in 18 AAC 50.990.

DS1R Well Injection Pump Monitoring, Recordkeeping, and Reporting

10.7. For EU IDs 64 and 65, monitoring shall consist of an annual certification of compliance with the particulate matter standard, based on reasonable inquiry.

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

PM Monitoring, Recordkeeping and Reporting

Liquid-Fired Engines and Turbines EU IDs 4 - 9, 12, 13, 15, 19 - 28, 35, 36, 59, 60, 64, and 65

11. Particulate Matter Monitoring for Diesel Engines and Liquid Fuel-Fired Turbines. The Permittee shall conduct source tests on diesel engines and liquid fuel-fired turbines to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 11.

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

11.1. Except as provided in Condition 11.4, within six months of exceeding the criteria of Conditions 11.2.a or 11.2.b, either

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

b. make repairs so that emissions no longer exceed the criteria of Condition 11.2; to show that emissions are below those criteria, observe emissions as described in Condition 3.1 under load conditions comparable to those when the criteria were exceeded.

11.2. Conduct the test according to Condition 11.1 if

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

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

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

11.4. The automatic PM source test requirement in Conditions 11.1 and 11.2 is waived for an emissions unit if a PM source test on that unit has shown compliance with the PM standard during this permit term.

12. Particulate Matter Recordkeeping for Diesel Engines and Liquid-Fired Turbines. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under Condition 11.

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

13. Particulate Matter Reporting for Diesel Engines and Liquid-Fired Turbines. The Permittee shall report as follows:

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

13.1. Report under Condition 109:

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

b. if one of the criteria of Condition 11.2 was exceeded and the Permittee did not comply with either Condition 11.1.a or 11.1.b, this must be reported by the day following the day compliance with Condition 11.1 was required;

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

13.3. In each operating report under Condition 110, include for the period covered by the report:

a. the dates, EU ID(s), and results when an observed 18-minute average was greater than an applicable threshold in Condition 11.2;

b. a summary of the results of any PM testing under Condition 11; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 11.2, if they were not already submitted.

PM Monitoring, Recordkeeping and Reporting For Incinerators

14. Incinerator Particulate Matter Emissions. Particulate matter emissions from EU ID 35 may not exceed 0.15 grains per cubic foot of exhaust gas corrected to 12 percent CO_2 and Standard Conditions, averaged over three hours.

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

15. Particulate Matter Monitoring for Incinerators. The Permittee shall conduct source tests on incinerators EU IDs 35 and 36 to determine the concentration of PM in the exhaust to verify compliance with Conditions 14 and 21 as follows:

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

15.1. Conduct a PM source test within 12-months of the permit's effective date and when required by visual monitoring requirements of Condition 2.3.e.

15.2. PM source test shall be performed according to the requirements set out in Section 6.

15.3. During each one-hour PM source test run, observe the exhaust for 60 minutes in accordance with Method 9 and calculate the average opacity that was measured during each one-hour test run.

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

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

16.1. In each operating report required by Condition 110, include for the period covered by the report:

a. the dates, EU ID(s), and results when an 18-minute opacity observation was greater than the applicable threshold criterion in 1, 2, 6, 7 and 8.

b. a summary of the results of any PM testing and visible emissions observations conducted under Conditions 2 and 15.

16.2. Report as excess emissions, in accordance with Condition 109, any time the results of a source test for PM exceeds the PM emission limit stated in Conditions 10 or 14.

VE & PM MR&R for Dual Fuel-Fired Emission Units, EU IDs 4 - 9, 12, 13

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

17.1. For any of EU IDs 4 - 9, 12, 13 or15, that does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and particulate matter is not required for that emission unit and monitoring. Monitoring shall consist of an annual certification under Condition 111 with Conditions 1 and 10.

17.2. For any of EU IDs 4 - 9, 12, 13 or15, notify the Department and begin monitoring the affected emission unit according to Condition 18.4 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel. If the observation exceeds the limit in Condition 1, monitor as described in Condition 9 or 11, as applicable by the type of emission unit. If the observation does not exceed the limit in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year[2].

17.3. When required to do so by Condition 17.2, observe the exhaust, following 40 C.F.R. 60, Appendix A-4 Method 9 (adopted by reference in 18 AAC 50.040(a), for 18-minutes to obtain 72 consecutive 15-second opacity observations.

17.4. Keep records and report in accordance with 4, 5, 9, 12, and 16.

17.5. Report under Condition 109 if the Permittee fails to comply with Condition 18.4.

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

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

Operating Limits for Emission Units, EU IDs 19 - 28

18. The Permittee shall monitor, record and report the monthly hours of operation when operating for EU IDs 19 - 28 as follows:

18.1. For EU IDs 19 and 20, if the total non-emergency operational hours for each engine exceeds 100 per calendar year, monitoring of compliance for visible emissions and particulate matter is required. Otherwise monitoring shall consist of an annual compliance certification under Condition 111 for Conditions 1 and 10.

18.2. Any of EU IDs 21 - 28 are subject to the VE and PM monitoring requirements if operations exceed 400 hours per calendar year per emission unit on a back-up liquid fuel.

18.3. EU IDs 19, 20, and 21 - 28 are subject to the liquid fuel monitoring and reporting requirements described in Conditions 11 and 12 if the hour limits found in Conditions 18.1 and 18.2 are exceeded.

a. Additionally, notify the Department and begin monitoring the affected emission unit(s) according to Conditions1 and 11 no later than 15 days after the end of a calendar month in which the hourly threshold limits specified in Conditions 18.1 and 18.2 were exceeded.

18.4. When required to do so by Condition 18.3, observe the exhaust, following 40 C.F.R. 60, Appendix A-4 Method 9 (adopted by reference in 18 AAC 50.040(a), for 18-minutes to obtain 72 consecutive 15-second opacity observations.

a. If the visual emissions monitoring exceeds the limit in Condition 1, perform a source test as described in Condition 11 for particle matter and report the results as specified in Condition 12.

18.5. Keep records and report in accordance with 4, 5, 9, 12, and 16.

18.6. Report under Condition 109 if the Permittee fails to comply with Condition 18.4.

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

Sulfur Compound Emission Standards Requirements

19. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs 1 - 34, 37 - 50, 59, 60, 64, and 65 to exceed 500 ppm averaged over three hours.

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

Liquid Fuel Sulfur Content Limit Restrictions (EU IDs 18 and 58 – 63)

20. The Permittee shall not:

20.1. Use liquid fuel with a sulfur concentration that exceeds:

a. 0.5 percent for EU ID 18, and

b. 0.15 percent by weight for EU IDs 58 - 63.

20.2. Monitor, record, and report according to Conditions 62.1, 62.2, and 62.3.

20.3. Notify the Department per Condition 109 should the liquid fuel sulfur content exceed the limits in Condition 20.

[Construction Permit No. 267CPT01 Condition 5 and Exhibit C, 4/28/03]
[Minor Permit No. AQ0267MSS02, Condition 15, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Sulfur Content for fuel oil[3]*, EU IDs 4 - 9, 12, 13, 15, and 19 - 28, 59, 60, 64, and 65.*

20.4. **Monitoring and Recordkeeping.** The Permittee shall do one of the following for each shipment of fuel:

a. Keep receipts that specify fuel grade or sulfur content and amount; or

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

(ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery using an appropriate method listed in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1); the test results must include a statement signed by the supplier or refinery of what fuel they represent.

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

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

a. If SO_2 emissions calculated under Condition 20.5 exceed 500 ppm, the Permittee shall report under Condition 109. When reporting under this condition, include the calculation under Section 12

b. The Permittee shall include in the report required by Condition 110:

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

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

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

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

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

Sulfur Content for fuel gas[4], EU IDs 1 - 18, and 37 - 50

20.7. **Monitoring.** The Permittee shall either:

a. At least semi-annually, obtain a statement from the fuel supplier of the fuel total sulfur level in ppm; or

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

20.8. **Recordkeeping** - Keep records of the statement from the fuel supplier or the sulfur content analysis required under Conditions 20.7.a or 20.7.b.

20.9. **Reporting** -

a. Report as excess emissions, in accordance with Condition 109, whenever the fuel combusted causes sulfur compound emissions to exceed the standard of Condition 19.

b. Include copies of the records required by Condition 20.8 with the operating report required by Condition 110 for the period covered by the report.

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

Sulfur Content for North Slope Liquid Fuel, EU IDs 4 - 9, 12, 13, 15, and 19 - 28, 59, 60, 64, and 65.

20.10. For liquid fuel from a North Slope topping plant, the Permittee shall obtain from the topping plant the results of a monthly fuel sulfur analysis.

a. The Permittee shall include in the operating report required by Condition 110 a list of the sulfur content(s) measured for each month covered by the report.

b. If the fuel contains greater than 0.75% percent sulfur by weight, 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 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

c. If SO_2 emissions calculated under Condition 20.10.b exceed 500 ppm, the Permittee shall report under Condition 109. The report shall document the calculation under Condition 20.10.b.

d. For fuel with a sulfur content greater than 0.75% by weight, the Permittee shall include in the operating report required by Condition 110 the calculated SO_2 emissions in PPM.

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

[4] *Fuel gas* has the meaning taken as natural gas as defined in 40 C.F.R. 60.41b, effective 7/1/07.

Legacy[5] Permit Requirements

BACT Emission Limits

21. Incinerator Emissions. Particulate matter emissions from EU ID 36 may not exceed 0.10 grains per cubic foot of exhaust gas corrected to 12 percent CO_2 and Standard Conditions, averaged over three hours, in accordance with Condition 24.

[Federal Kuparuk River Unit PSD Permit No. PSD-X82-01, as amended 10/7/97]
[Construction Permit No. 267CPT01 Condition 4 and Exhibit B, 4/28/03]
[18 AAC 50.040(j), 50.326(j), & 50.346(c) & 40 C.F.R. 71.6(a)]
[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a) and 40 C.F.R. 71.6(a)(3) & (c)(6)]

22. Turbine Emissions. The Permittee shall limit actual emissions from the Turbines (EU IDs 1 - 3 and 8 - 13) as indicated in Table B below.

[18 AAC 50.040(j), 18 AAC 50.326(j), and 40 C.F.R. 71.6(a)]
[Federal Kuparuk River Unit PSD Permit No. PSD-X82-01, as amended 10/7/97]
[Construction Permit No. 267CPT01, Condition 4 and Exhibit B, 4/8/03]

Table B - Turbine BACT Emissions Limits for EU IDs 1 - 3, and 8 - 13

EU ID	Pollutant	Emission Limit (short-term) per Individual Turbine	Annual Emission Limit Combined (tpy)
EU IDs 1 - 3	NO_X	150 ppmvd @15% O2	2,046
EU IDs 8 and 9		153 ppmvd @15% O2	
EU IDs 10 - 13		115 ppmvd @15% O2	
EU IDs 1 - 3 and 8 - 13	SO_2	No Limit	109
EU IDs 1 - 3 and 8 - 13	CO	0.17 lb/MMBtu	612
EU IDs 1 - 3 and 8 - 13	PM	No Limit	50
EU IDs 1 - 3 and 8 - 13	Opacity	10%, consecutive 6- minute average	No Limit
EU IDs 1 - 3 and 8 - 13	VOC	No Limit	7.5

Table Notes: 1) All other emission limits refer to Standard Conditions.

22.1. Calculate the monthly and the 12-month consecutive summation of emissions for NO_X, SO_2, CO, PM, and VOC for EU IDs 1 - 3 and 8 - 13. Use the emission factors found in Section 13 of this permit, along with the hours of operation and/or amount of fuel used, to calculate the monthly emissions for each unit.

22.2. Report the monthly and the consecutive 12-month period summation of emissions, for each month of the reporting period, with each operating report required by Condition 110.

[5] "Legacy" refers to permits issued before the split Construction and Operating Permits Program, and includes Federal PSD Permits, or State-issued Permits-to-Operate.

22.3. Notify the Department per Condition 109 should emissions of any air pollutant exceed the limit for that pollutant in Condition 21.

22.4. For EU IDs 1 - 3 and 8 - 13, monitor, record, and report in accordance with Conditions 61.2 - 61.4 to demonstrate compliance with the short-term BACT NO_X emission limit in Table B.

22.5. For EU IDs 1 - 3 and 8 - 13, monitor, record, and report in accordance with Condition 1.2 - 1.4 to demonstrate compliance with the short-term BACT VE emission limit in Table B

22.6. The Permittee shall perform a CO source test on a representative unit of each of EU IDs 1 - 3, 8 - 9, and 10 - 13, respectively, to demonstrate compliance with the short-term BACT CO emission limit in Table B as follows:

a. Conduct testing at three loads that represent the range of normal operations for that unit. To determine carbon monoxide emission rates, measure the fuel combustion rate and other Method 19 listed parameters necessary to conduct Method 19 emission rate concentrations. Use Method 19 to convert carbon monoxide emission concentrations to emission rates. Perform and submit the results of the source test in accordance with Section 6.

b. The test shall be conducted:

(i) within 5 years of the latest performance test, or

(ii) within 1 year of the effective date of this permit if the latest source test occurred greater than four years prior to issuance of this permit.

c. For each turbine in Condition 21 with test results that are 90 percent or more of the applicable short-term CO emission limits in Table B or for which emissions will equal or exceed 90 percent of the applicable emission limits at maximum load, the Permittee shall conduct an additional Method 10 and Method 19 test on that turbine within one year of the previous test. The Permittee shall conduct at least one additional test per year until at least two consecutive tests show that emissions from the turbine are less than 90 percent of the applicable limits at loads up to the maximum load.

d. The Permittee may substitute CO emissions data from another representative turbine if the Permittee demonstrates that test results from the representative turbine are less than 90 percent of the applicable emission limits and are projected to be less than 90 percent of the applicable limits at maximum load. Submit a substitution request containing the information listed in Condition 61.2.b(ii)(C) within the emission source test plan. If substituting data from a previous test, submit the substitution request no later than 30 days before the required test deadline.

e. The Permittee shall provide a copy of the CO source test report to the Department, within 60 days after completing the source test.

f. Update the emission factor in Section 13 and use the new emission factor value in calculations in 22.1.

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

23. The Permittee shall limit actual emissions from the Born Crude Heater EU ID 16 and Drill Site Heaters EU IDs 37 - 41, 43 - 45, and 48 - 50, as indicated in Table C below.

[Federal Kuparuk River Unit PSD Permit No. PSD-X82-01, as amended 10/7/97]
[Construction Permit No. 267CPT01 Condition 4 and Exhibit B, 4/28/03]

Table C - Heater BACT Emissions Limits for EU IDs 16, 37 - 41, 43 - 45, and 48 - 50

EU ID	Pollutant	Emission Limit (short-term) per Individual Heater	Annual Emission Limit Combined (tpy)
EU IDs 16, 37 - 41, 43 - 45, and 48 - 50	NO_X	0.10 lb/MMBtu	124
	SO_2	No limit	33
	CO	0.035 lb/MMBtu	44
	PM	No limit	14

Table Notes: 1) All emission limits refer to standard conditions.

23.1. Calculate the monthly and the 12-month consecutive summation of emissions of NO_X, SO_2, CO, and PM for EU IDs 16, 37 - 41, 43 - 45, and 48 - 50. Use the emission factors found in Section 13, along with the hours of operation and/or amount of fuel used, to calculate the monthly emissions for each unit.

23.2. Report the monthly and 12-month consecutive summation of emissions, for each month of the reporting period, with each operating report required by Condition 110.

23.3. Notify the Department per Condition 109 should emissions of any air pollutant exceed the limit for that pollutant in Condition 23.

23.4. The Permittee shall perform a CO source test on EU IDs 16, 39, 40, 48, and 49 and a representative unit of EU IDs 37, 38, 41, and 45, and a representative unit of EU IDs 43, 44, and 50 to demonstrate compliance with the short-term BACT CO emission limit in Table C as follows:

a. Conduct testing at three loads that represent the range of normal operations for that unit. To determine carbon monoxide emission rates, measure the fuel combustion rate and other Method 19 listed parameters necessary to conduct emission rate concentrations. Use Method 19 to convert carbon monoxide emission concentrations to emission rates. Perform and submit the results of the source test in accordance with Section 6.

b. The test shall be conducted:

(i) within 5 years of the latest performance test, or

(ii) within 1 year of the effective date of this permit if the latest source test occurred greater than four years prior to issuance of this permit.

c. For each turbine in Condition 23 with test results that are 90 percent or more of the applicable short-term CO emission limits in Table C or for which emissions will equal or exceed 90 percent of the applicable emission limits at maximum load, the Permittee shall conduct an additional Method 10 and Method 19 test on that emission unit within one year of the previous test. The Permittee shall conduct at least one additional test per year until at least two consecutive tests show that emissions are less than 90 percent of the applicable limits at loads up to the maximum load.

d. The Permittee may substitute CO emissions data from another representative heater if the Permittee demonstrates that test results from the representative heater are less than 90 percent of the applicable emission limits and are projected to be less than 90 percent of the applicable limits at maximum load. Submit a substitution request containing the information listed in Condition 61.2.b(ii)(C) within the emission source test plan. If substituting data from a previous test, submit the substitution request no later than 30 days before the required test deadline.

e. The Permittee shall provide a copy of the CO source test report to the Department, within 60 days after completing the source test.

f. Update the emission factor in Section 13 and use the new emission factor value in calculations in Condition 23.1.

23.5. For each of EU IDs 16, 39, 40, 48, and 49; one representative unit of EU IDs 37, 38, 41, and 45; and one representative unit of EU IDs 43, 44, and 50, the Permittee shall monitor, record and report in accordance with Conditions 61.2 - 61.4 to demonstrate compliance with the short-term BACT NO_X emission limit in Table C.

a. Update the emission factor in Section 13 and use the new emission factor value in calculations in Condition 23.1.

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

24. The Permittee shall limit actual emissions from EU ID 36 as indicated in Table D below.

[Federal Kuparuk River Unit PSD Permit No. PSD-X82-01, as amended 10/7/97]
[Construction Permit No. 267CPT01 Condition 4 and Exhibit B, 4/28/03]

Table D – Incinerator BACT Emission Limits for EU ID 36

Pollutant	Emission Limit (short-term) per Individual Incinerator	Annual Emission Limit (tpy)
NO_X	No limit	8
SO_2	No limit	4
CO	No limit	17
Opacity	10%, consecutive 6-minute average	No limit
PM	0.1 gr/dscf at 12% CO	12
VOC	No limit	5.1

24.1. Calculate the monthly and the 12-month consecutive summation of emissions of NO_X, SO_2, CO, PM, and VOC for EU ID 36. Use the emission factors found in Section 13, along with the hours of operation and/or amount of fuel used, to calculate the monthly emissions for each unit.

24.2. Monitor, record and report visible emissions in accordance with Condition 2.1 for the limit of Table D.

24.3. Monitor, record and report particulate emissions in accordance with Condition 16.

24.4. Report the monthly and 12-month consecutive summation of emissions, for each month of the reporting period, with each operating report required by Condition 110.

24.5. Notify the Department per Condition 109 should emissions of any air pollutant exceed the limit for that pollutant in Condition 24.

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

25. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 1 - 3, 8 - 13, and 36 to reduce visibility - the exhaust effluent by more than 10 percent averaged over any six consecutive minutes.

[Federal Kuparuk River Unit PSD Permit No. PSD-X82-01, as amended 10/7/97]
[Construction Permit No. 267CPT01, Exhibit B, 4/28/03]

26. The Permittee shall limit actual emissions from the GE Frame 6 Turbine (EU ID 14) and the Kvaerner Heater (EU ID 17) as indicated in Table E below.

[Construction Permit No. 9773-AC016 rev.1, 6/27/01]
[Construction Permit No. 267CPT01 Condition 4 and Exhibit B, 4/28/03]

Table E – BACT Emissions Limits for EU IDs 14 and 17

EU ID No.	Pollutant	Emission Limit (short-term) per Individual Unit
EU ID 14	NO_X	150 ppmvd @ 15% O2 and 266 lbs/hr
EU ID 17		0.10 lb/MMBtu
EU IDs 14 and 17	SO_2	200 ppmv H_2S in fuel gas (24-hr average)

Table Notes: 1) All emission limits refer to standard conditions.

26.1. Operate EU ID 14 with CZ liner lean-head combustion technology and EU ID 17 with low-NO_X burners as BACT.

26.2. Conduct an emission source test on EU IDs 14 and 17 following 40 C.F.R. 60, Appendix A-7, Method 20 for the EU 14 and Method 7E for EU ID 17 or following another protocol approved by the Department to demonstrate compliance with the short-term BACT NO_X emission limit in Table E within two years of the latest test.

a. if source test results of 26.2 are both below 80% of the NO_X limit specified in Table E, Permittee shall conduct an emission source test no less than once every five years.

b. except as provided for in Condition 26.2.a, if source test results are both below 90%, Permittee shall conduct an emission source test no less than once every two years;

c. except as provided for in Conditions 26.2.a or 26.2.b. The Permittee shall, install, calibrate, certify, operate, and maintain is accordance with 40 C.F.R. 60.13, a continuous oxides of nitrogen emission monitoring system (CEMS) on the exhaust stack of Emission Unit 14. Permittee shall continuously monitor and record compliance with Condition 25 based upon 1-hour average oxides of nitrogen measurements.

d. Record and report in accordance with Conditions 61.3 and 61.4.

26.3. To demonstrate compliance with the short-term BACT SO_2 emission limit in Table E:

a. Operate EU IDs 14 and 17 using only fuel gas with a H_2S content less than the allowable limit indicated in Table E.

b. Monitor, record, and report in accordance with Condition 20.4.

[Air Quality Control Construction Permit 9773 AC016]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Fuel Consumption Monitoring for EU IDs 1 - 50, and 58 - 63

27. The Permittee shall maintain and operate fuel gas meters or provide other means of estimating fuel consumption to determine the total volume of fuel gas consumed by the Turbines (Group I: EU IDs 1 - 14) and Heaters (Group II: EU IDs 15 - 18). For liquid fuel-burning equipment (EU IDs 19 - 50, and 58 - 63), meter the fuel consumption; absent metering, fuel consumption can be estimated based on firing rates and running hours.

[Operating Permit No. 9373-AA004, 5/11/93 & Construction Permit No. 267CPT01 Condition 5 and Exhibit C, 4/28/03]
[Minor Permit No. AQ0267MSS02, Condition 11, 11/13/06]

27.1. Monitor and record monthly fuel consumption for the:

a. turbines (EU IDs 1 - 14 combined),

b. heaters and drill site heaters (EU IDs 15 - 18, and 37 - 41, 43 - 45, and 48 - 50 combined),

c. liquid fuel-fired equipment (EU IDs 19 - 28 combined),

d. flares (EU IDs 29 - 33 combined),

e. portable flare (EU ID 34),

f. incinerators (EU IDs 35 and 36 combined),

g. drill site production heaters (each of EU IDs 42, 46, and 47),

h. drill rig engines (EU ID 58),

i. drill rig heaters and boilers (EU ID 59),

j. rig camp engines (EU ID 60),

k. well service heaters (EU ID 61),

l. well service engines (EU ID 62), and

m. well frac unit engines (EU ID 63).

27.2. Calculate and record the 12 consecutive month total fuel consumption for each emission unit group described by EU IDs 34 and 58 - 63.

27.3. Calculate and record the total daily fuel use for each emission unit group described by EU IDs 34, 58, and 61 - 63.

27.4. Report using the operating report under Condition 110, the monthly fuel consumption (MMscf/month for gas-fired emission units EU IDs 1 – 18 and 37 – 50, and gallons/month for liquid fuel-fired emission units EU IDs 19 – 36 and 58 – 63) for each emission unit group identified in Condition 27.1, and the stationary source total fuel consumption, for each month covered by the reporting period.

27.5. Report using the operating report under Condition 110, the 12 consecutive month total fuel consumption (MMscf or gallons) for each emission unit group described by EU IDs 34 and 58 - 63 for each month covered by the reporting period.

27.6. Report using the operating report under Condition 110, the maximum total daily fuel consumption (scf or gallons) for each emission unit group described by EU IDs 34, 58, 61 and 62 combined, and 63 for each month covered by the reporting period.

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

28. The Permittee shall limit the 12 consecutive month total fuel consumption of EU IDs 64 and 65 to no more than 148,000 gallons, combined total, and comply with Conditions 28.1 - 28.5.

28.1. Use a dedicated fuel tank for EU IDs 64 and 65.

28.2. Monitor and record the total gallons delivered to the dedicated fuel tank during each month. Fuel deliveries are equated to fuel consumption for that month.

28.3. By the fifteenth calendar day after the last day of the previous month, add the previous month's total to the preceding 11 months to get the 12 consecutive months total.

28.4. Report as described in Condition 109 if any 12 consecutive month total exceeds the limit in Condition 28.

28.5. Include copies of records required under Conditions 28.2 and 28.3 with the operating report for that period as described in Condition 110.

[Minor Permit No. AQ0267MSS03, Condition 3, 12/14/07]
[Minor Permit No. AQ0267MSS04, Condition 3, 12/20/09]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Hours of Operation Monitoring for Fuel-Fired Emission Units

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

[Operating Permit 9373-AA004, 5/11/93 and Construction Permit No. 9773-AC016 rev.1, 6/27/01]

29.1. Monitor and record the monthly operating time for each of EU IDs 1 - 18 and 35 - 50.

29.2. For EU IDs 4 - 9, 12, 13, 15, and 18 monitor and record the monthly operating time separately for fuel gas and liquid fuel firing and record the calendar year total liquid fuel operating time.

29.3. Report using the operating report under Condition 110, the data recorded under Conditions 29.1and 29.2, for each month of the reporting period.

Fuel Gas H_2S Content Limit

30. The Permittee shall not use fuel gas with a hydrogen sulfide (H_2S) concentration at standard conditions that exceeds:

30.1. 200 ppmv annual average (for EU IDs 1 - 13, 15, 18, 29 - 41, 43 - 45, and 48 - 50);

30.2. 200 ppmv 24-hour average (for EU IDs 14 and 17);

30.3. 162 ppmv three-hour average (for EU IDs 16 and 30); and

30.4. 275 ppmv at any time (for EU IDs 41, 42, 46, and 47).

[Construction Permit No. 267CPT01, Condition 5 and Exhibit C, 4/28/03]
[Minor Permit No. AQ0267MSS02, Condition 15, 11/13/06]

30.5. **Monitoring**. Monitor and record according to Conditions 20.7 and 20.8.

30.6. **Reporting**. Report the monthly and consecutive 12-month average fuel gas H_2S concentration, for each month of the reporting period, with each operating report required by Condition 110.

30.7. Notify the Department per Condition 109 should the fuel gas H_2S concentration exceed the limits in Condition 30.

[Minor Permit No. AQ0267MSS02, Condition 15, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Limits to Protect Ambient Air Quality and to Avoid PSD for DS1E/1J Construction and Development.

31. The Permittee shall document the date on which construction drilling commenced, is completed, and when post construction drilling commences and is completed for DS1E and DS1J.

[Minor Permit No. AQ0267MSS02, Condition 7, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

32. The Permittee shall limit the combined fuel use of all drill rig engines (EU ID 58) at DS1E and DS1J to no greater than 5,170 gallons per day.

32.1. Monitor, record, and report fuel consumption in accordance with Condition 27.

[Minor Permit No. AQ0267MSS02, Conditions 8 and 9, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

33. The Permittee shall limit:

33.1. The combined 12 consecutive month fuel use at DS1E and DS1J to no greater than:

a. 1,476,000 gallons for EU ID 59;

b. 54,400 gallons for EU ID 60;

c. 200,000 gallons for EU ID 61;

d. 177, 800 gallons for EU ID 62; and

e. 50,000 gallons for EU ID 63.

33.2. Monitor, record, and report fuel consumption in accordance with Condition 27.

[Minor Permit No. AQ0267MSS02, Condition 10, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

34. The Permittee shall limit:

34.1. The combined daily fuel use at DS1E and DS1J to no greater than:

a. 2,700 gallons for EU IDs 61 and 62, combined;

b. 20,100 gallons for EU ID 63.

34.2. Monitor, record, and report fuel consumption in accordance with Condition 27.

[Minor Permit No. AQ0267MSS02, Condition 12, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

35. The Permittee shall limit:

35.1. The gas burned in EU ID 34 to no more than

a. 16.2 MMscf per 12 consecutive month period; and

b. 150,000 scf/day.

35.2. Monitor, record, and report fuel consumption in accordance with Condition 27.

[Minor Permit No. AQ0267MSS02, Condition 13, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Installation of Replacement Units at DS1R

36. If the Permittee elects to install a replacement of EU IDs 64 or 65, provide contemporaneous written notice to the Department of initial startup[5] of a replacement unit. Such notice shall include:

36.1. vendor specification sheets that identify the unit type, make and model (including model number), serial number, and rating/size; and

36.2. the installation date and date of startup.

36.3. Include copies of the notifications and records required by Conditions 36.1 and 36.2 with the next operating report as described in Condition 110 for the period covered by the report.

[Minor Permit No. AQ0267MSS03, Condition 1.2 and 1.3, 12/14/07]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

DS1E/1 J Exclusion Zones

37. The Permittee shall establish an ambient air boundary exclusion zone around each drill site during Post-Construction Drilling as follows:

37.1. For DS1E, establish a rectangular zone of the following dimensions: 1,020 meters east to west and 1,410 meters north to south with the west side approximately 395 meters from the northwest corner of DS1E and the north side approximately 480 meters from the northwest corner of DS1E.

37.2. For DS1J, establish a rectangular exclusion zone of the following dimensions: 970 meters east to west and 1,320 meters north to south, with the west side approximately 445 meters from the southwest corner of DS1E and the south side approximately 350 meters from the southwest corner of DS1E.

37.3. Control public access within the zones listed in Conditions 37.1 and 37.2 for the periods when drill rigs are present and are in operation.

37.4. Control public access within the coastal zones listed in Conditions 37.1 and 37.2 during Post-Construction Drilling Operations[6] when drill rigs are operational. For

[6] Post construction drilling operations are defined as operations that occur any time on or after March 30, 2006.

all other periods, the ambient air boundary is the edge of the developed pads, and the requirements of Conditions 37 and 38 do not apply.

[Minor Permit No. AQ0267MSS02 Condition 3, 11/13/06]

38. The Permittee shall prohibit public access within any ambient air boundary established under Condition 37. To prevent public access:

38.1. During periods of active drilling, post the area with lighted signs printed in English and Inupiat that say *Warning Restricted Access, Air Quality Exclusion Zone, Authorized Personnel Only, Please Check in with the Drilling Supervisor*. Place at least 3 signs along each side of the ambient air boundary, spaced no more than 300 meters apart. Place one sign adjacent to the road leading to the well pad at the ambient air boundary. The Permittee may use reflective signs in lieu of lighted signs if they are clearly visible during low-light conditions and present no hazard to the public.

38.2. Maintain surveillance over the exclusion zone sufficient to ensure that the public is excluded. In addition to the provisions of Condition 38.1 follow the surveillance plan in Conditions 39 and 39.3.

[Minor Permit No. AQ0267MSS02 Condition 4, 11/13/06]

39. Surveillance Procedures.

39.1. Designated surveillance personnel[7] shall observe the area between the pad edge and the edge of the exclusion zone at least once per day. The surveillance personnel shall log the time and date of the location patrol using the form in (d) of the permit and shall maintain the logs on location in the rig supervisor's office or in another on-site location designated by the CPAI rig supervisor.

39.2. The completed surveillance forms shall be maintained on location until completion of the operation. At that time, all completed forms should be sent to CPAI's Kuparuk Field Environmental Compliance Coordinator for maintenance. All completed forms shall be maintained for a period of one year after the completion of operations unless otherwise requested by the Department.

39.3. If unauthorized person(s) are encountered in the air exclusion zone, the surveillance individual or security personnel shall take the following action:

a. Approach the unauthorized person(s) and request that they leave the exclusion zone immediately.

b. If the unauthorized person(s) refuse to leave the exclusion zone area after the request in Condition 39.3.a, they shall be informed that:

[7] CPAI will utilize heavy equipment drivers, the roustabout crews, security, operations, and technicians from subcontractors to perform surveillance duties. Additionally, all on-site personnel will be informed of the air permitting requirements to maintain an exclusion zone at the location. All personnel will be asked to maintain an exclusion zone at the location and to observe the location perimeter as they conduct their regular duties. Any suspected violation of the exclusion zone by unauthorized personnel shall be immediately reported to Security by the observing party. In addition to any other necessary action, Security will respond as described by the "surveillance individual" under Conditions 39 and 39.3.

(i) they are subjecting themselves to an area where national ambient air quality standards may not be met;

(ii) state regulations require CPAI to restrict entry to the posted area to authorized personnel only, and

(iii) the unauthorized person(s) shall again be asked to leave the exclusion zone area.

c. If the unauthorized individual(s) still refuse to leave, they shall be informed that neither CPAI nor any State agency will be liable or responsible for any harm the unauthorized person(s) may encounter by being in a restricted entry area. The surveillance individual will also request the name or names of the unauthorized person(s) at that time. The surveillance individual will then log the encounter with the unauthorized person(s) on the surveillance form. The data to be logged in such a situation shall include:

(i) the name of the individual (if known or otherwise provided);

(ii) the method of entry into the exclusion zone (e.g. by foot, snow machine, etc.);

(iii) duration of unauthorized presence within the exclusion zone; and

(iv) other pertinent information as appropriate.

d. The surveillance individual shall also report such incidents to the CPAI rig supervisor or their designated alternate for such purposes at the next available opportunity.

e. If unauthorized personnel entry into the exclusion zone poses safety concerns due to operational activities, the CPAI rig supervisor shall immediately be contacted by the surveillance individual. Actions shall then be taken as deemed appropriate by the CPAI rig supervisor

f. CPAI shall include summary information regarding any exclusion zone violations in the operating report under Condition 110 for the period covered by the report.

[Minor Permit No. AQ0267MSS02, Section 4, 11/13/06]

ORL Operating Hours for Emergency Liquid Fuel-Fired Engines

40. The Permittee shall operate the emergency equipment (EU IDs 19 - 28) for no more than 200 hours each per consecutive twelve-month period. For EU ID 19 and 20 do not operate over the time limit allowed in Condition 71.3.e. These limits do not include emergency operations.

40.1. Monitor and record the monthly hours of operation and the consecutive twelve-month period summation for each of EU IDs 19 - 28.

40.2. Report the monthly and consecutive twelve-month total of hours (both for emergency and non-emergency modes) operated each month of the reporting period with the operating report required by Condition 110.

40.3. Report per Condition 109 if the consecutive twelve-month total hours of non-emergency operation for any given month exceed the limits in Condition 1.4.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3), (a)(9) & (c)(6)]

ORL for EU ID 16 to Avoid Exceeding 43 MMBtu/hr Firing Rate

41. The Permittee shall limit the firing rate of the Born Crude Heater, EU ID 16, to no more than 43 MMBtu/hr heat input rate.

41.1. The maximum daily average fuel consumption rate of EU ID 16 shall not exceed 0.039 MMscf/hr based on a fuel low heating value (LHV) of 1,100 MMBtu/MMscf.

41.2. Monitor and record the daily operating time and fuel consumption using the emission unit's fuel monitoring device. Calculate the average fuel consumption rate (MMscf/hr) on a daily basis.

41.3. Report under Condition 110 the maximum daily average fuel consumption rate (MMscf/hr) for each month as determined in Condition 41.2.

41.4. Report under Condition 109 if EU ID 16 exceeds the firing rate limit in Condition 41.

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

ORL Limits to Avoid Project Classification as a PSD Major Modification

42. Limit NO_X emissions from EU IDs 1 - 3, combined, to no greater than 824 tons per 12 consecutive month period.

42.1. Monitor and record NO_X emissions according to Condition 23.1.

42.2. Report the 12 consecutive month period summation of NO_X emissions from EU IDs 1 - 3, for each month of the reporting period, with each operating report required by Condition 110.

42.3. Notify the Department per Condition 109 should any 12 consecutive month summation of NO_X emissions from EU IDs 1 - 3 combined exceed the limit in Condition 42.

[Minor Permit No. AQ0267MSS02 Condition 5, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

43. The Permittee shall limit the combined total heat input rating of EU IDs 42, 46 and 47 to no more than 184 MMBtu/hr heat input rate.

[Minor Permit No. AQ0267MSS02, Condition 14, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

44. The Permittee shall limit combined SO_2 emissions from EU IDs 34, 42, 46, 47, and 59 to no greater than 35 tons per 12 consecutive month period.

44.1. For EU ID 59, calculate and record the total SO_2 emissions for each calendar month using monthly fuel oil use measured in Condition 27 and the fuel sulfur content measured in Condition 20.2. If the fuel use records are missing or incomplete for any unit, calculate SO_2 emissions based on operating hours and maximum design fuel use rates.

44.2. For EU IDs 42, 46, and 47, calculate and record the total SO_2 emissions for each calendar month using fuel consumption measured in Condition 27 and fuel gas H_2S content measured in Condition 30.5. If the fuel consumption records are missing or incomplete for any emission unit, estimate SO_2 emissions based on operating hours and maximum design fuel consumption rates.

44.3. For EU ID 34, calculate and record SO_2 emissions for each calendar month using the fuel gas consumption measured in Condition 27 and the fuel H2S content.

44.4. Calculate and record the 12 consecutive month SO_2 emissions from EU IDs 34, 42, 46, 47, and 59, combined.

44.5. Report the 12 consecutive month SO_2 emissions for EU IDs 34, 42, 46, 47, and 59, combined, for each month of the reporting period, with each operating report required by Condition 110. If operation of an emission unit has not yet approached 12 months, list the cumulative emissions of the unit as a substitute for compliance with the 12-month rolling total emission limit.

[Minor Permit No. AQ0267MSS02, Condition 16, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

45. Limit VOC emissions from EU ID 56 at DS1E and DS1J to a combined total no greater than 34 tons per 12 consecutive month period.

45.1. Record the following information, when sending live crude oil to temporary crude oil storage tank(s), to monitor the venting of VOCs from EU ID 56:

a. date and time that venting began and ended;

b. event description (well name, type of activity, etc.);

c. description of fluid(s) introduced to the temporary crude oil storage tank(s);

d. volume of liquid accumulated in the temporary crude oil storage tank(s);

e. estimated percentage of live crude oil in the total liquid volume accumulated in the temporary crude oil storage tank(s);

f. estimated volume of gas vented;

g. estimated tonnage of VOCs vented; and

h. operational comments and/or assumptions used for estimated volumes recorded in Conditions 45.1.d and 45.1.f.

45.2. Estimate the monthly tonnage of total VOC emissions from EU ID 56 at DS1E and DS1J as follows, or use an alternate method approved by the Department:

a. Estimate the percentage of live crude oil and crude composition in formation fluid(s) by:

(i) using well test results, or

(ii) using reservoir data and/or centrifuge results.

b. Estimate the volume of live crude oil that goes to temporary crude oil storage tank(s) by:

(i) estimating the volume of total fluid(s) that are captured in the temporary crude oil storage tank(s);

(ii) estimating the volume of fluid(s) pumped downhole;

(iii) estimating the volume of total fluid initially contained in the well bore;

(iv) estimating the volume of live crude oil that is initially contained in the well bore;

(v) subtracting the volumes estimated in Conditions 45.2.b(ii) and 45.2.b(iii) from the volume estimated in Condition 45.2.b(i), and multiplying by the percentage of live crude oil determined in Condition 45.2.a; use zero for the result if the volume in Condition 45.2.b(ii) is greater than the volume in Condition 45.2.b(i); and

(vi) adding the volume in Condition 45.2.b(iv) to the volume in Condition 45.2.b(v)the result is the volume of live crude oil. Use the volume in Condition 45.2.b(i); if the volume in Condition 45.2.b(vi) is greater than the volume in Condition 45.2.b(i).

c. Use HYSYS®, PROSIM®, or a similar tool approved by the Department to estimate the VOC content of flashed gases (including lift gas if used):

(i) the Permittee shall document the equation of state and oil characterization parameters used to estimate the VOC content;

(ii) the Permittee shall use the tool identified in Condition 45.2.c for estimating VOC flashing losses from fluid(s) that go to the temporary crude oil storage tank(s).

d. If a separator is used, monitor the separator pressure, temperature and liquid flow rate on an hourly basis when flowing fluid(s) to temporary crude oil storage tank(s).

e. If a flare is used, the Permittee shall estimate the total volume of gas routed to the flare using the flowback data determined under Condition 45, and estimate monthly VOC emissions using a Department approved emission factor.

45.3. the Permittee shall include with each operating report under Condition 110:

a. the monthly VOC emissions estimated in Condition 45.2; at DS1E and DS1J and the 12 consecutive month VOC emissions, for each calendar month in the reporting period;

b. the input and output from simulation models and software; and

c. all calculations and assumptions used.

[Minor Permit No. AQ0267MSS02, Condition 17, 11/13/06]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

ORL for Incinerators to Avoid Stationary Source Classification as "HAPs Major"

46. The Permittee shall not allow the combined solid throughput of EU IDs 35 and 36 to exceed 5,500 tons per rolling 12-month period.

46.1. **Monitoring and Recordkeeping**. The Permittee shall monitor and record the daily amount of solid waste burned in EU ID 35 and 36 to calculate a monthly total. Using the monthly totals, calculate a consecutive 12-month total summation of the solid waste throughput of EU IDs 35 and 36.

46.2. **Reporting**. Report the monthly and 12-month total summation of the solid waste throughput required in Condition 46.1 for each month of the reporting period with each operating report required by Condition 110 for the period covered by the report.

46.3. Notify the Department per Condition 109 if the consecutive 12-month summation of solid waste throughput exceeds the limit of Condition 46.

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

47. The Permittee shall limit the charging rate of EU ID 36 to 765 pounds of waste per hour.

47.1. **Monitoring and Recordkeeping**. The Permittee shall keep records of the amount of waste in pounds and the total hours of combustion in EU ID 36 on a daily basis. The Permittee shall calculate the hourly average charging rate in lb/hr based on the records required in Condition 47.1.

47.2. **Reporting**. The Permittee shall include in the operating report under Condition 110 a report of the monthly maximum hourly average charging rates (lb/hr) for EU ID 36 for the period covered by the report.

47.3. Report under Condition 109 if the charging rate exceeds the limit in Condition 47.

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

Insignificant Emission Units

48. For EU IDs 61- 63 that are insignificant emission units as defined in 18 AAC 50.326(f)(85), and for emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

[18 AAC 50.055(a)(1)]

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

[18 AAC 50.055(b)(1)]

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

[18 AAC 50.055(c)]

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

a. The Permittee shall submit the compliance certifications of Condition 111 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 87;

c. The Permittee shall report in the operating report required by Condition 110 if an emission unit is insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and actual emissions become greater than any of those thresholds;

d. No other monitoring, recordkeeping or reporting is required, except as provided in Conditions 1.3, 1.4, 33.2, 34.2, 61, and 62.

[18 AAC 50.346(b)(4)]

Section 4. Federal Requirements

Emission Units Subject to Federal NSPS, Subpart A

49. NSPS Subpart A Notification. For any affected facility[8] or existing facility[9] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

[18 AAC 50.035; and 18 AAC 50.040(a)(1)]
[40 C.F.R. 60.7(a) 7/1/07 & 60.15(d), Subpart A]

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

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

49.2. the actual date of initial startup of an affected facility postmarked within 15 days after startup;

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

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

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change;

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

49.4. 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 60 days (or as soon as practicable) before construction of replacements is commenced and must include the following information:

[40 C.F.R. 60.15(d)]

a. the name and address of owner or operator,

b. the location of the existing facility,

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

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

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

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

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 NSPS, after the proposed replacements.

50. NSPS Subpart A Startup, Shutdown, & Malfunction Requirements. The Permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of EU IDs 1 - 14, 16, 30, 42, 46, 47, 51 - 55, and 57, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs 1 - 14, 16, 30, 42, 46, 47, 51 - 55, and 57, is inoperative.

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

51. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. Except as provided for in Condition 52, the Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report " (EEMSP)[10] any time a limit in Condition(s) 57, 59, 60, 61, 62 has been exceeded, as described in this condition. Submit the EEMSP reports with the summary report form as required in Condition 52. Written reports of excess emissions shall include the following information.

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

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

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

51.2. Specific identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU IDs 1 - 14, 16, and 30, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

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

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

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

[10] The federal EEMSP report is not the same as the State excess emission report required by condition 109.

52. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form[11]" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU IDs 1 - 14, 16, and 30. Excepts as otherwise specified in Condition 62.4, the report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows:

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

52.1. If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit only the summary report form **unless** the EEMSP report described in Condition 51 is requested, or

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

52.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total operating time for the reporting period, then submit a summary report form and the EEMSP described in Condition 51.

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

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

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

54. 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 - 14, 16, 30, 35, 36, 42, 46, 47, 51 - 55, and 57, including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 1 - 14, 16, 30, 35, 36, 42, 46, 47, 51 - 55, and 57.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.11(d), Subpart A & 40 C.F.R. 60.12(c), Subpart A]

55. 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 59, 61, and 62, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information,

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

relevant to whether EU IDs 1 - 14, 16, 30, 42, 46, 47, and 57 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

56. 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 57, 59, 61, 62, 63, and 68. 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 and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.

[18 AAC 50.040(a)(1)]
[40 C.F.R. 60.12, Subpart A & 40 C.F.R. 61.19, Subpart A]

57. NSPS Subpart A General Control Device Requirements. The Permittee shall monitor EU ID 30, a flare used as control device for EU ID 57, to ensure that it is operated and maintained in conformance with 40 C.F.R. 60.18(c)(1), (c)(2), (c)(3), (c)(5), (c)(6), 60.18(d), 60.18(e), 60.18(f)(1), (f)(2), (f)(3), (f)(4), (f)(6), and 40 C.F.R. 60.485(g).

57.1. EU ID 30 shall be:

a. designed for and operated with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours; and

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

[40 C.F.R. 60.18(c)(1 &2) & 60.18(e), Subpart A]

57.2. The Permittee shall monitor EU ID 30 to ensure that it is operated and maintained in conformance with its design, and according to the provisions of 40 C.F.R. 60.485(g), SubpartVV (Condition 63):

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

a. Use Method 22 of 40 C.F.R. 60 Appendix A to determine the compliance of flares with the visible emission provisions in Condition 57.1.a. The observation period is 2 hours and shall be taken monthly according to Method 22.

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

(i) To ensure compliance with Condition 57.1.b install and monitor the presence of a flare pilot flame using a thermocouple, infrared or any other equivalent device to detect the presence of a flame. The time, date, and duration of any loss of pilot flame shall be recorded. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with, the manufacturer's specifications.

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

b. For EU ID 30, an air assisted flare, the Permittee shall comply with the following:

(i) Operate with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater. The net heating value of the gas being combusted shall be determined by the methods specified in 40 C.F.R. 60.18(f)(3).

(ii) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, Vmax, as determined by the method specified in 40 C.F.R. 60.18(f)(6) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

[40 C.F.R. 60.18(c)(3)(ii), (c)(5 & 6), (f)(3, 4, & 6), Subpart A]

(iii) Install a continuous flow monitor and composition analyzer that provides a record of the vent stream flow and composition either in total VOC or Btu content to the flare. The flow monitor sensor and analyzer sample points shall be installed in the vent stream as near as possible to the flare inlet such that the total vent stream to the flare is measured and analyzed. Readings shall be taken at least once every 15 minutes and the average hourly values of the flow and composition shall be recorded each hour. The monitors shall be calibrated on an annual basis to meet the following accuracy specifications: the flow monitor shall be ±5.0%, temperature monitor shall be ±2.0% at absolute temperature, and pressure monitor shall be ±5.0 mm Hg.

(iv) If the Permittee elects to monitor VOCs, the calibration of the analyzer shall follow the procedures and requirements of Section 10.0 found in 40 C.F.R. Part 60, Appendix B, Performance Specification 9, except that the multi-point calibration procedure in Section 10.1 of Performance Specification 9 shall be performed at least once every calendar quarter instead of once every month, and the mid-level calibration check procedure in Section 10.2 of Performance Specification 9 shall be performed at least once every calendar week instead of once every 24 hours. The calibration gases used for calibration procedures shall be in accordance with Section 7.1 of Performance Specification 9. Net heating value of the gas combusted in the flare shall be calculated according to the equation given in 40 C.F.R. 60.18(f)(3).

(v) If a calorimeter is used, the calorimeter shall be calibrated, installed, operated, and maintained, in accordance with manufacturer recommendations, to continuously measure and record the net heating value of the gas sent to the flare, in British thermal units/standard cubic foot of the gas.

(vi) The monitors and analyzers shall operate at least 95% of the time when the flare is operational, averaged over a rolling 12 month period. Flared gas net heating value and actual exit velocity determined in accordance with 40 C.F.R. 60.18(f)(4) shall be recorded at least once every 15 minutes unless a calorimeter is used. Hourly mass emission rates shall be determined and recorded using the above readings.

(vii) Report in the Operating Report required by Condition 110 the total VOCs or BTU content recorded in Condition 57.2.b(iii) and the Reference Method 22 readings from Condition 57.2.a for the period covered by the report.

[18 AAC 50.040(a)(1), 50.040(a)(2)(Z), 50.040(a)(2)(BB) and 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 60.18(b) – (f), Subpart A; 40 C.F.R. 71.6(a)(3) & (c)(6)]
[40 C.F.R. 60.592(d), Subpart GGG, and 40 C.F.R. 60.485(g), Subpart VV]

Steam Generating Units Subject to NSPS Subpart Dc

58. NSPS Subpart Dc Fuel Consumption. For each of EU IDs 42, 46, and 47, the Permittee shall record the amounts of each fuel combusted during each day or monitor according to an EPA approved custom fuel-monitoring schedule.

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

Petroleum Refineries (Kuparuk Unit Topping Plant (KUTP)) Subject to NSPS Subpart J

59. NSPS Subpart J SO_2 Emission Standards. The Permittee shall not cause or allow any fuel gas[12] burned in EU IDs 16 (Born crude heater at the KUTP) and 30 (Kaldair I-58-VS Emergency Flare) to contain hydrogen sulfide (H_2S) in excess of 230 milligrams H_2S per dscm (0.10 gr/dscf) averaged over three consecutive hours. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from this paragraph.

[18 AAC 50.040(a)(2)(J)]
[40 C.F.R. 60.104(a)(1) and 40 C.F.R. 60.105(e)(3)(ii), Subpart J]
[Construction Permit No.267CPT01, 4/28/03]

59.1. **Monitoring**. Maintain and operate in good working order two CEMS for continuously monitoring and recording the concentration (dry basis) of H2S in fuel gases before being burned in EU IDs 16 and 30, which contain a component of the process gas generated by KUTP. The span value for this instrument is 425 mg/dscm H2S. The Permittee shall monitor the combination of process gas and fuel gas burned in EU IDs 16 and 30 to determine the hydrogen sulfide content of the gas.

59.2. The performance evaluations under 40 C.F.R. 60.13(c) for the H2S monitors shall use Performance Specification 7, Method 11, 15, 15A, or 16 to conduct the

[12] *Fuel gas* means any gas which is generated at a petroleum refinery and which is combusted, including natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a petroleum refinery, as defined in 40 C.F.R. 60.101(d) effective 7/1/03.

relative accuracy evaluations. Conduct of relative accuracy evaluations shall be as set forth in Section 6.

59.3. **Recordkeeping and Reporting.** The Permittee shall:

a. Operate the two CEMS in accordance with 40 C.F.R. 60.105(a)(4).

b. Record and report according to Conditions 51 and 52.

[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]
[40 C.F.R. 60.105(a)(4), Subpart J]

Petroleum Liquid Storage Vessels (Tanks) Subject to NSPS Subpart Ka

60. NSPS Subpart Ka Requirements: The Permittee shall only store in EU IDs 51 - 55, petroleum liquids with a Reid vapor pressure less than 6.9 kPa and maximum true vapor pressure less than or equal to 6.9 kPa (1.0 psia).

60.1. **Recordkeeping and Reporting**. The Permittee shall keep records demonstrating the Reid vapor pressure and true vapor pressure of stored liquids in each tank subject to Subpart Ka.

[18 AAC 50.040(a)(2)(L)]
[40 C.F.R. [60.115a (d)(1), Subpart Ka]

Turbines Subject to NSPS Subpart GG, EU IDs 1 - 3 and 10 - 13

61. NSPS Subpart GG NO_X Standard.

61.1. The Permittee shall not allow the exhaust gas concentration of NO_X from:

a. EU IDs 1 - 3 to exceed 161 ppmvd, ISO corrected, at 15 percent O_2 on a dry exhaust basis, and

b. EU IDs 10 - 13 to exceed 162 ppmvd[13], ISO corrected, at 15 percent O_2 on a dry exhaust basis.

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

61.2. **Monitoring.**

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

a. **Periodic Testing.** For each turbine subject to Condition 61 that operates for 400 hours or more in any 12-month period during the life of this permit, the Permittee shall satisfy either Condition 61.2.a(i) or 61.2.a(i)(A).

(i) For existing turbines whose latest emissions source testing was certified as operating at less than or equal to 90% of the limit shown in Condition 21, the Permittee shall conduct a NO_X and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, within the first applicable

[13] EU IDs 12 and 13 are exempt from this standard when firing on emergency liquid fuel in accordance with 40 C.F.R. 60.332(k).

criteria below in the noted timeframe no later than the listed permit expiration date except as set out in Condition 61.2.a(ii):

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

(B) Within 1 year of the effective date of this permit if the last source test occurred greater than four years prior to issuance of this permit, or

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

(ii) For existing turbines whose latest emissions source testing was certified as operating at greater than 90% of the limit shown in Condition 21, the Permittee shall conduct a NOx and O_2 source test under 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A, annually until two consecutive tests show performance results certified at less than or equal to 90% of the limit of Condition 21.

b. **Substituting Test Data.** The Permittee may use a Method 20, or Method 7E and either Method 3 or 3A, test under Conditions 61.2.a or 61.2.c performed on only one of a group of turbines to satisfy the requirements of those conditions for the other turbines in the group if

(i) the Permittee demonstrates that test results are less than 90 percent of the emission limit of Condition 21, and are projected under Condition 61.2.c to be less than 90 percent of the limit at maximum load;

(ii) for any source test done after the issuance date of this permit, the Permittee identifies in a source test plan under Condition 101

(A) the turbine to be tested;

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

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

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

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

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

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

(iii) for any source test done before the issuance date of this permit and used under Condition 61.2.a(i)(A), the Permittee

(A) demonstrates why the test results are representative of emissions from the entire group of turbines, including that each turbine in the group

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

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

(3) uses the same fuel type; and

(iv) The Permittee may not use substitute test results to represent emissions from a turbine or group of turbines if that turbine or group of turbines is operating at greater than 90% of the emission limit of Condition 21.

c. **Load.**

(i) The Permittee shall conduct all tests under Condition 61.2 in accordance with 40 C.F.R. 60.335, except as otherwise approved in writing by the Department, or by EPA if the circumstances at the time of the EPA approval are still valid. For the highest load condition, if it is not possible to operate the turbine during the test at maximum load, the Permittee will test the turbine when operating at the highest load achievable by the turbine under the ambient and stationary source operating conditions in effect at the time of the test.

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

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

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

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

(2) a demonstration based on the additional test information that projects the test results from Condition 61.2 to predict the highest load at which

emissions will comply with the limit in Condition 61;

(B) the Permittee shall not operate any turbine represented by the test data at loads for which the Permittee's demonstration predicts that emissions will exceed the limit of Condition 61;

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

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

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

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

(D) the Permittee may revise a load limit by submitting results of a more recent Method 20 test done at a higher load, and, if necessary, the accompanying information and demonstration described in Condition 61.2.c(iii)(A); the new limit is subject to any new Department finding under Condition 61.2.c(iii)(C)and

(iv) In order to perform a Method 20, or Method 7E and either Method 3 or 3A, emission test, the Permittee may operate a turbine at a higher load than that prescribed by Condition 61.2.c(iii).

(v) For the purposes of Conditions 61.2 - 61.4, maximum load means the hourly average load that is the smallest of

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

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

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

61.3. **Recordkeeping.**

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

a. The Permittee shall comply with the following for each turbine for which a demonstration under Condition 61.2.c(iii) does not show compliance with the limit of Condition 61.1 at maximum load.

(i) The Permittee shall keep records of

(A) load; or

(B) as approved by the Department, surrogate measurements for load and the method for calculating load from those measurements.

(ii) Records in Condition 61.3.a shall be hourly or otherwise as approved by the Department.

(iii) Within one month after submitting a demonstration under Condition 61.2.c(iii)(A)(2) that predicts that the highest load at which emissions will comply is less than maximum load, or within one month of a Department finding under Condition 61.2.c(iii)(C), whichever is earlier, the Permittee shall propose to the Department how they will measure load or load surrogates, and shall propose and comply with a schedule for installing any necessary equipment and beginning monitoring. The Permittee shall comply with any subsequent Department direction on the load monitoring methods, equipment, or schedule.

b. For any turbine subject to Condition 61, that will operate less than 400 hours in any 12 consecutive months, keep monthly records of the hours of operation

61.4. **Reporting.**

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

a. In each operating report under Condition 110 the Permittee shall list for each turbine tested or represented by testing at less than maximum load and for which the Permittee must limit load under Condition 61.2.c(iii)

(i) the load limit;

(ii) the turbine identification; and

(iii) the highest load recorded under Condition 61.3.a during the period covered by the operating report.

b. In each operating report under Condition 110 for each turbine for which Condition 61.2 has not been satisfied because the turbine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify

(i) the turbine;

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

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

c. The Permittee shall report under Condition 109 if

(i) a test result exceeds the emission standard;

(ii) Method 20 testing is required under Condition 61.2 or 61.3.b but not performed, or

(iii) the turbine was operated at a load exceeding that allowed by Conditions 61.2.c(iii)(B) and 61.2.c(iii)(C); exceeding a load limit is deemed a single violation rather than a multiple violation of both monitoring and the underlying emission limit.

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

62. NSPS Subpart GG Sulfur Standard. The Permittee not allow the sulfur content of the fuel burned in EU IDs 1 - 14 to exceed 0.8 percent by weight.

[18 AAC 50.040(a)(2)(V)]
[40 C.F.R. 60.333-60.335, Subpart GG]
[40 C.F.R. 60.333(b), Subpart GG]

62.1. **Monitoring** - Monitor compliance with the standards listed in this condition as follows:

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

a. **For gaseous fuels**:

(i) demonstrate that the fuel(s) meet the definition of natural gas in 40 C.F.R. 60.331(u), as provided by 40 C.F.R. 60.334(h)(3); or

(ii) monitor the total sulfur content of the fuel(s) as required under 40 C.F.R. 60.334(h)(1), 40 C.F.R. 60.334(i)(2), and 40 C.F.R. 60.335(b)(10)(ii). If the total sulfur content of the fuel during the most recent performance test was less than 0.4 weight % (4000 ppmw), then the fuel gas sulfur content may be determined according to ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Producers Association Standard 2377-86; or

(iii) if the demonstration under Condition 62.1.a(i) is not made, the Permittee may follow the provisions of the EPA-approved Custom Fuel Monitoring Schedule and Alternate H2S Sampling Method, which allow the Permittee to determine the sulfur content of the fuel at least monthly using ASTM D 4810-88, D 4913-89, or Gas Producers Association 2377-86; or

(iv) use readings from the KUTP continuous emissions monitoring system (CEMS) which monitors CPF-1 plant fuel gas; or

(v) monitor in accordance with a new Custom Fuel Monitoring Schedule and/or plan approved by the Administrator.

[40 C.F.R. 60.334(h), (i)(3); 60.335(b)(10) (ii), Subpart GG]
[EPA letter dated 10/2/1997 Re: Alternate H2S Sampling Method]
[EPA letter, 4/5/00 Re: Custom fuel monitoring schedule (for fuel gas)]

b. **For liquid fuels**:

(i) monitor the total sulfur content of the fuel as required under 40 C.F.R. 60.334(h)(1), 40 C.F.R. 60.334(i)(1), and 40 C.F.R. 60.335(b)(10)(i); or

(ii) monitor in accordance with a Custom Fuel Monitoring Schedule and/or Plan approved by the Administrator for affected turbines at the stationary source, as follows:

(A) Record the amount of fuel oil combusted daily in each of EU IDs 4 - 9, 12, and 13;

(B) For each calendar month during which EU IDs 4 - 9, 12, or 13 was fired on fuel oil, obtain the results of the fuel oil sulfur analysis conducted in accordance with test methods referenced in 40 C.F.R. 60.335(b)(10)(i) from the fuel supplier[14].

[40 C.F.R. 60.334(i)(3), & 40 C.F.R. 60.335(b)(10)(i), Subpart GG]
[EPA letter, 12/7/07 Re: Custom fuel monitoring schedule (for liquid fuel)]

c. The fuel sulfur analyses required under this condition may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.

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

62.2. **Recordkeeping.** The Permittee shall keep records as follow:

a. Keep records of the analyses conducted under Condition 62.1.

b. Maintain records documenting a constant fuel supplier or source of fuel. Fuel for purposes of this condition is natural gas and liquid fuel. A substantial change in fuel quality shall be considered a change in fuel supply.

c. Maintain records of all affected turbine operation on fuels other than natural gas.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[EPA letter, 4/5/00 Re: Custom fuel monitoring schedule (for fuel gas)]
[EPA letter, 12/7/07 Re: Custom fuel monitoring schedule (for liquid fuel)]

[14] ASTM Method D4294-03 may be used if approved in writing from EPA's Emission Measurement Center in the Office of Air Quality Planning and Standards (OAQPS).

62.3. **Reporting**. For each affected unit that periodically determines the fuel sulfur content under Condition 62.1, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with 40 C.F.R. 60.7(c) as summarized in Condition 51 except where otherwise approved by a custom fuel monitoring schedule. Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction as described by 40 C.F.R. 60.334(j)(2).

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

62.4. Report to the Department and EPA the results of all sulfur monitoring required by Condition 62.1. Reporting under the Custom Fuel Monitoring Schedules (CFMS) may include the information required under 40 C.F.R. 60.7(c) in order to satisfy the 40 C.F.R. 60.7(c) and (d) reporting required under Conditions 51 and 52 for EU IDs 1 - 14.

a. The results of fuel gas sulfur monitoring under Condition 62.1 shall be reported annually.

[EPA letter, 4/5/00 Re: Custom fuel monitoring schedule]

b. The results of liquid fuel sulfur monitoring under Condition 62.1 shall be reported within 30 days following the end of each year in accordance with a Custom Fuel Monitoring Schedule for liquid fuel approved by the Administrator.

[EPA letter, 12/7/07 Re: Custom fuel monitoring schedule (for liquid fuel)]

62.5. Notify EPA Region 10 of the use of any fuel other than natural gas within 60 days of such use.

62.6. Notify EPA Region 10 of any changes in supplier or source of fuel within 60 days of such change.

[18 AAC 50.040(j), 12/3/05 and 18 AAC 50.326(j), 10/1 /04] [40 C.F.R. 71.6(a), 7/1/04]
[EPA letter, 4/5/00 Re: Custom fuel monitoring schedule]

62.7. Report under Condition 109 if

a. a test result exceeds the limit in Condition 62;

b. monitoring is required under Condition 62.1 but not performed; or

c. reporting required under Conditions 62.3, 62.4, or 62.5 is not completed.

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

Emission Units subject to NSPS Subpart GGG/VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Chemicals Manufacturing Industry

63. *Closed Vent Systems and Control Devices* - The closed vent systems installed at KUTP (EU ID 57) and control device (EU IDs 30) used to comply with 40 C.F.R. 60.482-10 shall be operated at all times when emissions may be vented to them. Flare (EU ID 30) used to comply with this condition shall comply with 40 C.F.R. 60.18, as stated in Condition 57.

[18 AAC 50.040(a)(2)(V) & (BB)]
[40 C.F.R. 60.592(a), and 40 C.F.R. 60.482-10a (d) &(e)]

63.1. *Sampling Connection Systems* - Sampling connection systems for the KUTP (EU ID 57) shall be designed and operated to meet the standards and requirements of 40 C.F.R. 60.482-5.

[40 C.F.R. 60.592(a) and 40 C.F.R. 60.482-5]

63.2. *Open-ended Valves or Lines* - Open-ended valves or lines for the KUTP (EU ID 57) shall be equipped with a cap, blind flange, plug or a second valve and shall be operated in accordance with provisions of 40 C.F.R. 60.482-6.

[40 C.F.R. 60.482-6]

63.3. **Monitoring and Repairs.**

a. Closed Vent Systems and Control Devices

(i) The Permittee shall monitor the control devices to ensure that they are operated and maintained in conformance with their designs.

[40 C.F.R. 60.18, 40 C.F.R. 60.592(a), 40 C.F.R. 60.482-10(e), and 40 C.F.R. 60.482-10(f)(1)(ii)]

b. For each closed vent system, conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

[40 C.F.R. 60.482-10(f)(1)(ii)]

(i) When a leak is detected[1], perform leak repair procedures as soon as practicable, but not later than 15 calendar days after it is detected. If the repair is technically infeasible without a process unit shutdown or if the Permittee determines that emissions from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, then repair of the equipment shall occur before the end of the next process unit shutdown.

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

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

[40 C.F.R. 60.482-10(g)(1)]

63.4. **Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors**

[1] A leak is defined as any Method 21 reading of 500 ppm or greater above background [ref. 40 C.F.R. 60.482-10(g)], or any evidence of a leak that the Permittee considers a leak.

a. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method, the Permittee shall monitor within 5 days the pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors using Method 21 (40 C.F.R. 60, Appendix A-7) to determine presence of leaking sources. Method 21 monitoring is not required if the Permittee assumes that a leak would be detected by such monitoring and proceeds with leak repairs per Conditions 63.3.b(i) and 63.3.b(ii).

[40 C.F.R. 60.592(a) & (d), 40 C.F.R. 60.482-8(a), and 40 C.F.R. 60.485(b)(1)]

(i) When a leak[2] is detected, leak repairs shall be completed as soon as practicable, but not later than 15 calendar days after it is detected. If the repair is technically infeasible without a process unit shutdown, repair of the equipment shall occur before the end of the next process unit shutdown.

[40 C.F.R. 60.482-8(b), 40 C.F.R. 60.482-8(c)(1) and 40 C.F.R. 60.482-9]

(ii) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. This shall include, but is not limited to, the best practices described under 40 C.F.R. 60.482-7(e).

[40 C.F.R. 60.482-8(c)(2) & (d), and 40 C.F.R. 60.482-7(e)]

63.5. **Recordkeeping.**

a. The Permittee shall comply with the following recordkeeping requirements:

[40 C.F.R. 60.592(e) and 40 C.F.R. 60.486]

(i) When a leak is detected as specified by Condition 63.4.a(i), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment until after it has been repaired.)

(ii) For each leak detected as specified by Condition 63.4.a(i), the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location:

[40 C.F.R. 60.40.486(b) & (c)]

(A) The instrument and operator identification numbers and the equipment identification numbers;

(B) The date the leak was detected and the dates of each attempt to repair the leak;

(C) Repair methods applied in each attempt to repair the leak;

[2] A leak is defined as any Method 21 reading of 500 ppm or greater above background [ref. 40 C.F.R. 60.482-10(g)], or any evidence of a leak that the Permittee considers a leak.

(D) "Above 10,000" if the maximum instrument reading measured by Method 21 after each repair attempt is equal to or greater than 10,000 ppm;

(E) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;

(F) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown;

(G) The expected date of successful repair of the leak if a leak is not repaired within 15 days;

(H) Dates of process unit shutdowns that occur while the equipment is unrepaired; and

(I) The date of successful repair of the leak.

63.6. The following information pertaining to the design requirements for closed vent systems and control devices described in Condition 63 shall be recorded and kept in a readily accessible location:

[40 C.F.R. 60.486(d)]

a. Detailed schematics, design specifications, and piping and instrumentation diagrams;

b. The dates and descriptions of any changes in the design specifications;

c. A description of the parameter(s) monitored, as required in Condition 63.3.a(i) to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter(s) was selected for the monitoring;

d. Periods when the closed vent systems and control devices required in Condition 63 are not operated as designed, including periods when a flare pilot light in EU ID 30 does not have a flame; and

e. Dates of startups and shutdowns of the closed vent systems and control devices required in Condition 63.

63.7. The following information shall be recorded in a log that is kept in a readily accessible location:

[40 C.F.R. 60.486(e)]

a. A list of identification numbers for KUTP equipment subject to the applicable requirements of NSPS Subpart GGG (40 C.F.R. 60.482-5, 60.482-6, 60.482-8, and 60.482-10); and

b. A list of identification numbers for equipment in vacuum service.

63.8. **Reporting.**

a. The Permittee shall submit to EPA and the Department semiannual reports that shall include the following:

[40 C.F.R. 60.487(c)]

(i) Process unit identification;

(ii) For each month during the semiannual reporting period, an explanation of each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible;

(iii) Dates of process unit shutdowns which occurred within the semiannual reporting period; and

(iv) Revisions to items reported in the initial semi-annual report if changes have occurred since the initial report or subsequent revisions to the initial report.

ORL for Incinerator for Exemption from the Requirements of 40 C.F.R. 60, Subpart O

64. The Permittee shall limit each of the incinerators, EU IDs 35 and 36, to burn less than 10 percent sewage sludge on a dry basis for each incinerator that charges less than 1000 kg (2205 lb) per day sewage sludge (dry basis)..

64.1. Maintain daily records of estimated dry percent sewage sludge charging rates incinerated in EU IDs 35 and 36. Take sludge samples on a regular basis and determine the dry weight as a percentage. Use this percentage in calculating the incinerator charging rate.

64.2. Upon request, submit the records required by Condition 64.1 to EPA or the Department.

64.3. Report under Condition 109 if the incinerator(s) exceed the limit of Condition 64.

[18 AAC 50.040(a)(2)(Q), 18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 60.150(a), Subpart O and 40 C.F.R. 71.6(a)(3) & (c)(6)]

ORL for Incinerators for Exemption from the Requirements of 40 C.F.R. 62, Subpart HHH

65. The Permittee shall limit each of the incinerators, EU IDs 35 and 36, to combust a fuel feed stream, ten percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis.

65.1. Weigh and record the weight of hospital/medical/infectious waste, and other fuels and wastes combusted in each incinerator.

65.2. Keep records of the information required in Condition 65.1 on a calendar quarter basis.

65.3. Upon request, submit the records to EPA or the Department.

65.4. Report under Condition 109 if the incinerator(s) exceed the limit of Condition 65.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3), (a)(9) & (c)(6)]
[18 AAC 50.040(g)(3)]

[40 C.F.R. 62.14400(b)(2) and 40 C.F.R. 62.14490,Subpart HHH]

ORL for Incinerators for Exemption from the Requirements of 40 C.F.R. 62, Subpart III

66. The Permittee shall burn greater than 30 percent municipal solid waste or refuse-derived fuel as a percentage of all fuels and wastes burned in each of EU IDs 35 and 36.

66.1. The Permittee shall keep records on a calendar quarter basis of the weight of municipal solid waste burned, and the weight of all other fuels and wastes burned in EU IDs 35 and 36. Use the daily totals from Conditions 46, 64, and 65 to calculate the total wastes burned.

66.2. Upon request, submit the records required by Condition 66.1 to EPA or the Department.

66.3. Report under Condition 109 if the incinerator(s) do not meet the limit of Condition 66.

[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(3), (a)(9) & (c)(6)]
[40 C.F.R. 62.14525(c)(2)(ii), Subpart III]

Emission Units Subject to Federal NESHAPS Subpart A

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

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

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

Emission Units subject to NESHAPs Subpart E National Emission Standard for Mercury: EU IDs 35 and 36,

68. The Permittee shall not cause or allow emissions to the atmosphere from sludge incineration plants (incinerators), EU IDs 35 and 36, to exceed 3.2 kg (7.1 lb) of mercury per 24-hour period.

68.1. Monitoring and reporting shall consist of an annual statement of compliance that no changes in the operation of a plant have been made after a sludge test was conducted which would potentially increase emissions above the level determined by the most recent sludge test. Submit the certification in accordance with Condition 111.

[18 AAC 50.040(a)(2)(A)]
[40 C.F.R. 61.52(b), and 40 C.F.R. 61.54(e) Subpart E]

Compression Ignition CI ICE Subject to NESHAP Subpart ZZZZ, EU IDs 19 - 28, 64, and 65

69. NESHAP Subpart A. The Permittee shall comply with the applicable requirements of 40 CFR Subpart A in accordance with the provisions for applicability of Subpart A in Subpart ZZZZ Table 8.

[18 AAC 50.040(c)(1)]
[40 C.F.R. 63.6665 and Table 8 to Subpart ZZZZ]

70. NESHAP Subpart ZZZZ General Compliance Requirements. For EU IDs 19 - 28, 64, and 65, the Permittee shall comply with the applicable emission limitations and operating limitations no later than May 3, 2013.

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

70.1. At all times operate and maintain EU ID(s) 19 – 28, 64, and 65, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU ID(s) 19 - 28.

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

71. NESHAP Subpart ZZZZ Operating Limitations and Associated Monitoring Requirements. For EU IDs 19 - 28, 64, and 65, comply with the following requirements at all times, except as noted:

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

71.1. Operate and maintain EU IDs 19 - 22, and 25 - 28, any associated control device, and/or associated monitoring equipment according to either:

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

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

[40 C.F.R. 63.6625(e), §63.6640(a), and Table 6 of Subpart ZZZZ]

71.2. For EU IDs 19 - 28, 64, and 65, minimize the time spent at idle during startup and minimize the startup time to a period needed for appropriate and safe loading, not to exceed 30 minutes.

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

71.3. Comply with the following operating time limits for EU IDs 19 and 20:

a. Any operation of EU IDs 19 and 20 for purposes other than emergency operation, maintenance and testing, and operation in non-emergency situations for up to 50 hours per calendar year, as permitted in Condition71.3.e, is prohibited.

b. There is no time limit on the use of EU IDs 19 and 20 in emergency situations.

c. EU IDs 19 and 20 may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of EU IDs 19 and 20 is limited to 100 hours per calendar year.

d. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

e. EU IDs 19 and 20 may be operated up to 50 hours per calendar year in non-emergency situations, but those hours shall be counted towards the 100 hours per calendar year provided for in Condition 71.3.c.

f. The 50 hours per calendar year of non-emergency usage of EU IDs 19 and 20 may not be used for peak shaving or to generate income for a stationary source to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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

71.4. Monitor EU IDs 19 and 20 using a non-resettable hour meter at all times that the emission unit is operating except for monitor malfunctions, associated repairs, and required quality assurance or control activities.

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

72. NESHAP Subpart ZZZZ Emissions Limitations and Associated Monitoring Requirements**.** Except during periods of startup, the emissions for EU IDs 23, 24, 64, and 65 shall be limited as follows:

72.1. Do not exceed 49 ppmvd carbon monoxide (corrected to 15% oxygen) in the exhaust; or

72.2. Reduce CO emissions by 70 percent or more.

[40 C.F.R. 63.6603(a) and Table 2d of Subpart ZZZZ]

72.3. For EU IDs 23, 24, 64, and 65, except as allowed by 40 C.F.R. 63.7(a)(2), conduct an initial performance test no later than 180 days after May 3, 2013 (i.e., October 30, 2013) as follows[3]:

a. Conduct performance tests in accordance with Subpart ZZZZ, Table 4, Item 1 or 3 and 40 C.F.R. 63.6620.

b. Initial performance testing is waived if a performance test has previously been conducted as follows:

(i) The test was conducted using the same methods specified in 40 C.F.R. 63.6620, and these methods have been followed correctly;

(ii) The test must not be older than 2 years;

(iii) The test must be reviewed and accepted by the Administrator; and

(iv) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

72.4. Submit the results of the initial performance test according to Condition 103.

[40 C.F.R. 63.6595(a), §63.6612, §63.6620, §63.6630(c), Subpart ZZZZ]

72.5. Initial compliance with Condition72 shall be determined according to 40 C.F.R. 63, Subpart ZZZZ, Table 5, Item 8 or 9.

[40 C.F.R. 63.6630(a), Subpart ZZZZ]

73. NESHAPS Subpart ZZZZ Maintenance Requirements.

73.1. For EU IDs 19 and 20, comply with the following:

a. Change the oil and filter every 500 hours of operation or annually, whichever comes first[4];

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

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

73.2. For EU IDs 21, 22 and 25 - 28, comply with the following:

a. Change the oil and filter every 1,000 hours of operation or annually, whichever comes first2;

[3] Per 40 C.F.R. 63.6620(b), the Permittee is not required to start up a non-operational stationary RICE subject to performance testing solely to conduct the performance test. The performance test can be conducted when the engine is next started up.

[4] The Permittee may use an oil analysis program as described in 40 C.F.R. 63.6625(i) to extend the specified oil change requirement in Conditions 73.1.a and 73.2.a.

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

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

[40 C.F.R. 63.6603(a) and Table 2d of Subpart ZZZZ]

73.3. For EU IDs 23, 24, 64, and 65, comply with the following:

a. The Permittee shall either:

(i) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(ii) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

b. Follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation system(s) and replacing the crankcase filters, or request approval to use different maintenance requirements that are as protective as manufacturer requirements.

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

74. Fuel Requirements.

74.1. All diesel fuel burned in EU IDs 23, 24, 64, and 65 must meet the requirements of 40 C.F.R 80.510(b) for nonroad diesel fuel[5] by May 3, 2013.

74.2. The Permittee shall not burn any diesel fuel with a fuel sulfur content greater than 15 ppmw.

74.3. Monitor, record, and report as required by Condition 19.

[18 AAC 50.040(c)(23) & 18 AAC 50.040(j) & 50.326(j)(4)]
[40 C.F.R. 80.510; 40 C.F.R. 63.6604, Subpart ZZZZ]

75. NESHAP Subpart ZZZZ Recordkeeping.

75.1. For EU IDs 23, 24, 64, and 65, keep records of:

a. the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment;

b. performance tests and performance evaluations as required in 40 C.F.R. 63.10(b)(2)(vii) – (ix);

c. all required maintenance performed on air pollution control and monitoring equipment;

d. actions taken during periods of malfunction to minimize emissions in accordance with Condition 87, including corrective actions to restore

[5] The compliance date under 40 C.F.R. 80.510(b) of June 1, 2010 applies to non-road engines. EU IDs 23, 24, 64, and 65 are not required to comply until the Subpart ZZZZ compliance date of May 3, 2013.

malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 C.F.R. 63.6655(a), Subpart ZZZZ]
[40 C.F.R. 63.10(b)(2)(vii) – (ix) & (xiv), Subpart A]

75.2. For EU IDs 19 - 22 and 25 - 28, keep records of maintenance conducted on the engine to demonstrate that the engine and after-treatment control device (if any) are operated and maintained according to Conditions 71.1, and 73 or 73.2. These records must include, at a minimum: oil and filter change dates and corresponding hour on the hour meter; inspection and replacement dates for air cleaners, hoses, and belts; and records of other emission-related repairs and maintenance performed.

[40 C.F.R. 63.6655(d) & (e), 75 FR 9654, Subpart ZZZZ]

a. For EU IDs 19 and 20, keep records of the hours of operation, including:

(i) the number of hours spent for emergency operation and what classified the operation as an emergency; and

(ii) the number of hours spent for non-emergency operation.

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

76. NESHAP Subpart ZZZZ Reporting. Report as follows for EU IDs 23, 24, 64, and 65:

76.1. Submit Compliance Reports to EPA Region 10 and the Department as follows:

a. If EU IDs 23, 24, 64, and 65 are limited use engines as defined in 40 C.F.R. 63.6675 and no deviations have occurred during the reporting period, the Permittee may elect to submit the reports annually per Condition 76.2; or

b. Semiannually per Condition 76.3 if the engines operate 100 hours or more per calendar year.

76.2. **Annual Compliance Reports**

a. The first annual Compliance Report must cover the period from May 3, 2013 - December 31, 2013, and shall be postmarked or delivered no later than January 31, 2014.

b. Subsequent Compliance Reports must cover the annual reporting period from January 1 - December 31 and shall be postmarked or delivered no later than January 31.

c. If a deviation from an emission or operating limitation has occurred during the reporting period, the Compliance Report shall be submitted semi-annually according to Condition 76.3 and shall also contain the information required by Condition 76.4.f.

76.3. **Semi-annual Compliance Reports**

a. The first semi-annual Compliance Report must cover the period May 3, 2013 - December 31, 2013, and shall be postmarked or delivered no later than January 31, 2014.

b. Subsequent Compliance Reports must cover the semiannual reporting period from January 1 - June 30 or the semiannual reporting period from July 1 - December 31 and shall be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

c. The Permittee may submit the first and subsequent semi-annual Compliance Reports according to the dates established in Condition 110 instead of the dates in Conditions 76.3.a and 76.3.b.

76.4. All Compliance Reports shall contain the following information:

a. Company name and address.

b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

c. Date of report and beginning and ending dates of the reporting period.

d. If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by the Permittee during a malfunction of an affected emission unit (EU IDs 23, 24, 64, and 65) to minimize emissions in accordance with Condition 83, including actions taken to correct a malfunction.

e. If no deviations from any applicable emission or operating limitations occurred during the reporting period, a statement that there were no deviations from the emission or operating limitations during the reporting period.

f. If a deviation occurred during the reporting period, the Compliance Report shall also contain the following information:

(i) the total operating time of EU IDs 23, 24, 64, and 65 during the reporting period; and

(ii) the number, duration, and cause of the deviation(s) (including unknown cause, if applicable), and the corrective action taken.

[40 C.F.R. 63.6650(a), (b), (c), (d), (f) & Table 7 of Subpart ZZZZ]
[40 C.F.R. 63.6645(a)(2), Subpart ZZZZ]
[40 C.F.R. 63.9(h)(3), Subpart A]

76.5. Report to the Department under Condition 109 any deviation from the limitations in Conditions 71.1 - 74.

[18 AAC 50.040(j)(4) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]
[40 C.F.R. 63.6650(f), Subpart ZZZZ]

Section 5. General Conditions

Standard Terms and Conditions

77. 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) and 18 AAC 50.345(a) & (e)]

78. 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) and 18 AAC 50.345(a) & (f)]

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

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

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

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

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

81.1. the portion of the stationary source's assessable potential to emit of 5,004 TPY; or

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

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

b. material balance calculations;

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

d. other methods and calculations approved by the Department**.**

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

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

82.1. no later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions to ADEC, Air Permits Program, ATTN:

Assessable Emissions Estimate, 410 Willoughby Ave., Juneau, AK 99801-1795; the submittal must include all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates; or

82.2. if no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 81.1.

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

83. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 15, 17, 18, 19 - 28 (if actual emissions from these emission units are not insignificant as defined by 18 AAC 50.326(e)), 29, 32, 33, 34, 37 - 41, 43 - 45, 48 - 50, 56, 58 - 60, 64, and 65:

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

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

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

83.4. EU ID(s) 19 - 28, 64, and 65 are subject to this condition only until the applicable compliance date as set forth in Conditions 70.

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

84. 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)]

85. 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); 18 AAC 50.040(e); 18 AAC 50. 326(j)(3) and 18 AAC 50.346(c)]

85.1. 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 85.1 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

85.2. The Permittee shall report according to Condition 87.

85.3. For emission units other than EU IDs 35 and 36, monitoring shall consist of an annual certification that reasonable precautions were taken.

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

[18 AAC 50.055(g)]

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

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

87.1. Monitoring, Record Keeping, and Reporting for Condition 87.

a. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 109.

b. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 87.

87.2. 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 87; or

b. the Department notifies the Permittee that it has found a violation of Condition 87.

87.3. The Permittee shall keep records of

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 87; and

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

87.4. With each operating report under Condition 110, the Permittee shall include a brief summary report for the period covered by the operating report which must include

a. the number of complaints received;

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

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

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

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

88. 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[6] listed in Condition(s) 59, 61, 62, 90 (refrigerants), the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 109 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 109.

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

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

[18 AAC 50.040(b)(1) & (2)(F) and 18 AAC 50.326(j)]
[40 C.F.R. 61, Subparts A & M, and Appendix A, 5/16/07]

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

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

NESHAPs Applicability Determinations

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

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

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

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

Halon Prohibitions, 40 C.F.R. 82

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

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

93. The Permittee shall comply with the applicable prohibitions set out in 40 C.F.R. 82. 270(b)-(f) (Protection of Stratospheric Ozone Subpart G – Halon Emission Reduction).

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

Open Burning Requirements

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

94.1. 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.

94.2. Compliance with this condition shall be an annual statement of compliance certification conducted under Condition 111 for the period covered by the certification.

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

Section 6. General Source Testing and Monitoring Requirements

95. 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) and 18 AAC 50.345(a) & (k)]

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

[18 AAC 50.220(b)]

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

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

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

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

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

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

[18 AAC 50.040(b) & 18 AAC 50.220(c)(1)(B)]
[40 C.F.R. 61, 5/16/07]

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

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

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

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

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

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

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

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

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

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

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

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

99. Test Exemption. The Permittee is not required to comply with Conditions 101, 102, and 103 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.1).

[18 AAC 50.345(a)]

100. 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)]

101. Test Plans. Except as provided in Condition 99, 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 source 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 95 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)]

102. Test Notification. Except as provided in Condition 99, 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)]

103. Test Reports. Except as provided in Condition 99, 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 106. 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)]

104. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 10, 14, and 48.2, 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

105. 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 50.326(j)]
[40 C.F.R 60.7(f), Subpart A and 71.6(a)(3)(ii)(B)]

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

105.2. 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

106. Certification. The Permittee shall certify all reports, compliance certifications, or other documents 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.

106.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if

a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and

b. the person providing the electronic signature has made an agreement, with the certifying authority described in 106.1.a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature,

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

107. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send two copies of reports, compliance certifications, and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK

99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, source test reports, or other records under a cover letter certified in accordance with Condition 106.

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

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

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

109. Excess Emissions and Permit Deviation Reports.

109.1. Except as provided in Condition 87, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

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

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

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

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

c. report all other excess emissions and permit deviations

(i) within 30 days of the end of the month in which the emissions or deviation occurs, except as provided in Conditions 109.1.c(ii) and 109.1.c(iii);

(ii) if a continuous or recurring excess emissions is not corrected within 48 hours of discovery, within 72 hours of discovery unless the Department provides written permission to report under Condition 109.1.c(i); and

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

109.2. When reporting excess emissions or permit deviations, the Permittee shall report using either the Department's on-line form, which can be found at http://dec.alaska.gov/air/index.htm

https://myalaska.state.ak.us/dec/air/airtoolsweb or if the Permittee prefers, the form contained in Section 14 of this permit. The Permittee must provide all information called for by the form that is used.

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

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

110. Operating Reports. During the life of this permit[7], the Permittee shall submit to the Department an original and one copy of an operating report by August 1 for the period January 1 to June 30 of the current year and by February 1 for the period July 1 to December 31 of the previous year.

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

110.2. If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 110, either

a. The Permittee shall identify

(i) the date of the deviation;

(ii) the equipment involved;

(iii) the permit condition affected;

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

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

b. When excess emissions or permit deviations have already been reported under Condition 109 the Permittee shall cite the date or dates of those reports.

110.3. The operating report must include a listing of emissions monitored under Conditions 2 and 3.1.e, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

110.4. **Transition from expired to renewed permit**. For the first period of this renewed operating permit, also provide the previous permit's operating report

[7] "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.

elements covering that partial period immediately preceding the effective date of this renewed permit.

111. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department one original[8] and one copy of an annual compliance certification report.

111.1. 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 - Section 10, 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;

111.2. **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

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

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

112. NSPS and NESHAP Reports. The Permittee shall:

112.1. **Reports**: Attach to the operating report required by Condition 110, for the period covered by the report a copy of any NSPS and NESHAPs reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10; and

112.2. **Waivers**: Upon request by the Department, notify and provide a written copy of any EPA-granted waiver of the Federal emission standards, record keeping, monitoring, performance testing, or reporting requirements, or approved custom monitoring schedules.

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

113. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions, by emission unit, of CO, NH_3, NO_X, PM_{10}, $PM_{2.5}$, SO_2, VOCs and Lead (Pb) (and lead compounds) using the form in Section 16 of this permit, as follows:

113.1. Each year by March 31.

113.2. Include in the report required by this condition, the required data elements contained within the form in Section 16 or those contained in Table 2A of

[8] See Condition 111.2 for clarification on the number of copies required.

Appendix A to Subpart A of 40 CFR 51 (final rule published in 73 FR 76556 (December 17, 2008)) for each stack associated with an emission unit.

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

Section 8. Permit Changes and Renewal

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

114.1. 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[9];

114.2. The information shall be submitted to the same address as in Condition 111.3.

114.3. 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

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

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

115. 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) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(8)]

116. Off Permit Changes. The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 C.F.R. Parts 72 - 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:

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

116.2. 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;

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

116.4. 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) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(12)]

[9] The documents required in Condition 114 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek, Suite 249, Anchorage, AK 99501.

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

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

117.2. For each such change, the written notification required by Condition 117.1 shall include a brief description of the change within the permitted stationary source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

117.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 117.

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

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

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

Section 9. Compliance Requirements

General Compliance Requirements

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

119.1. included and specifically identified in the permit; or

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

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

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

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

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

a. an enforcement action;

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

c. denial of an operating permit renewal application.

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

121. 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); and 18 AAC 50.345(a) & (d)]

122. 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

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

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

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

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

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

123. For applicable requirements with which the Kuparuk Central Production Facility #1 is in compliance, the Permittee will continue to comply with such requirements on a timely basis.

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

Section 10. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the permit application, this section of the permit contains the requirements determined by the Department not to be applicable to the Kuparuk Central Production Facility #1.

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

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

124.2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

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

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

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

Table F - Permit Shields Granted.

Non-Applicable Requirements	Reason for Non-Applicability
Flares: EU IDs 30 and 31 – KUTP	
40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.18(c)(4) and (f)(5) – General Control Device Requirements: Exit velocity requirements for Steam-Assisted and Non-Assisted Flares	These flares are not steam-assisted or non-assisted but are air-assisted.
Gas-Fired Heaters & Drill Site Heaters: EU IDs 15, 16, 17, 18, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, and 50	
40 C.F.R. 60, Subpart D – Standards of Performance for Fossil- Fuel-Fired Steam Generators	Heat input capacities below threshold (250 MMBtu/hr) and the units are not classified as *Fossil-Fuel-Fired Steam Generators*, as defined in the subpart.
40 C.F.R. 60, Subpart Da – Standards of Performance for Electric Utility Steam Generating Units	Heat input capacities below threshold (250 MMBtu/hr) and the units are not classified as *Electric Utility Steam Generating Units*, as defined in the subpart.
40 C.F.R. 60, Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Heat input capacities below threshold (100 MMBtu/hr).
40 C.F.R. 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.	H-3204 and H-102A: Heat input capacities are below threshold (10 MMBtu/hr) All others listed above: Commenced construction prior to rule applicability date of subpart (6/9/89).

Non-Applicable Requirements	Reason for Non-Applicability
Drill Site Heaters: EU IDs 42, 46, and 47	
40 C.F.R. 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units; 40 C.F.R. 60.42c - Standard for Sulfur Dioxide (SO2)	Standards for SO_2 and PM and related performance test, monitoring and reporting requirements are not applicable for affected units fired only on fuel gas.
40 C.F.R. 60.43c - Standard for Particulate Matter (PM)	
40 C.F.R. 60.44c - Compliance and Performance Test Methods and Procedures for SO2; 40 C.F.R. 60, Subpart A - General Provisions; 40 C.F.R. 60.8 - Performance Test	
40 C.F.R. 60.45c - Compliance and Performance Test Methods and Procedures for PM; 40 C.F.R. 60.8 - Performance Test	
40 C.F.R. 60.46c - Emission Monitoring for SO2	
40 C.F.R. 60.47c - Emission Monitoring for PM	
40 C.F.R. 60.48c(a)(4)-(f) & (h) - Reporting and Recordkeeping Requirements	
40 C.F.R. 60.48c(a)(2)-(3) - Reporting and Recordkeeping Requirements	Units fire only fuel gas. Therefore, they are not subject to any requirements that limit the annual capacity factor for any fuel or mixture of fuels.
40 C.F.R. 60, Subpart A - General Provisions; 40 C.F.R. 60.7(a)(1) & (3) - Notification and Recordkeeping (Initial Notification); 40 C.F.R. 60, Subpart Dc; 40 C.F.R. 60.48c(a)(1) – Notifications	Obsolete requirements - completed as required.
40 C.F.R. 60.7(a)(4) – Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
40 C.F.R. 60.7(c) & (d) – Excess Emissions Reporting; 40 C.F.R. 60, Subpart Dc	The provisions of 40 C.F.R. 60.7(c) & (d) apply only to New Source Performance Standards which require the installation of a continuous monitoring system (CMS) or monitoring device, as defined in 40 C.F.R. 60.2, or as required under specific NSPS subparts for periodic monitoring. The affected fuel gas-fired heater is not required by Subpart Dc to install a CMS or monitoring device nor are there any applicable emission limits for the fuel gas-fired heater to which "excess emissions" could apply.
Storage Tanks: T1-101, T1-P101A, T1-P101B, T-175, T-177, T-178, T-201, T-1002A, T-1002B, T-1009, T-2201, T-2202, T-CL03, G1-19501, G1-19502, G1-19503, G1-19504, T-1A01, T-1E01, T-1F1901, T-1G01, T-1L01, T-1Q01, T-1R01, T-1Y01, T-1005, and Temporary Crude Oil Storage Tank (EU ID 56)s	
40 C.F.R. 60, Subpart K- Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel commenced construction after the rule applicability date of subpart (5/19/78).
Storage Tanks: T-176 and T-CW01	
40 C.F.R. 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel capacity less than threshold (40,000 gallons).
Storage Tanks: T1-P101A, T1-P101B, and T-1009	
40 C.F.R. 60, Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessel commenced construction prior to or after the rule applicability dates of subpart (5/18/78-7/23/84).

Non-Applicable Requirements	Reason for Non-Applicability
Storage Tanks: T-175, T-176, T-CL03, T-177, T-178, T-1002A, T-1002B, T-CW01, and Temporary Crude Oil Storage Tanks (EU ID 56)	
40 C.F.R. 60, Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids	Vessels capacity less than threshold (40,000 gallons).
Storage Tank: T1-101, T-2201, T-2202, T-1005	
40 C.F.R. 60, Subpart Ka	Each petroleum liquid storage vessel with a capacity of less than 1,589,873 liters (420,000 gallons) used for petroleum or condensate stored, processed, or treated prior to custody transfer is not an affected facility and, therefore, is exempt from the requirements of this subpart. [40 C.F.R. 60.111a(b)]
Storage Tank: T-1Q01, T-1R01, T-1Y01, T-1005, T-1A01, T-1E01, T-1F1901, T-1G01, T-1L01, T1-101, T-175, T-177, T-201 (EU ID 51) , T-1002A, T-1002B, T-2201, T-2202, G1-19501 and EU IDs 52 - 55	
40 C.F.R. 60, Subpart Kb	Vessels commenced construction prior to the rule applicability date of subpart (July 23, 1984)
Storage Tank: T-178, T-CW01, and Temporary Crude Oil Storage Tanks (EU ID 56)	
40 C.F.R. 60, Subpart Kb	Vessels capacity less than threshold (20,000 gallons)
Storage Tanks: T1-P101A and T1-P101B	
40 C.F.R. 60, Subpart Kb	In a letter to CPAI dated August 18, 2006, EPA determined that these tanks fall within the definition of process tanks in 40 C.F.R. 60.1 11b (as amended 10/15/03), which are exempt from Subpart Kb.
Process Storage Tanks: V1-103, V1-EL05, V1-101, V-122, V1-117, V1-104, V-GC09	
40 C.F.R. 60 Subparts K, Ka, and Kb	These are process vessels that operate under pressure. Pressure vessels designed to operate in excess of 204.9 kPa (15 psig) without emissions to the atmosphere except under emergency conditions are exempt from Subparts K, Ka, and Kb (ref. 40 C.F.R. 60.111(a)(1), 60.111a(a)(1), and 60.110b(d)(2))
Storage Tank: TK-FA-0501-10 (Portable Gasoline Storage Tank)	
40 C.F.R. 63 Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities	Subpart CCCCCC does not apply to portable storage vessels. (Additional information on this shield decision is provided in the Statement of Basis
All Storage Tanks	
40 C.F.R. 63, Subpart OO – National Emission Standards for Tanks – Level 1	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63, Subpart OO.
40 C.F.R. 63, Subpart SS – National Emission Standards for Closed Vent Systems	Provisions only apply to tanks affected by 40 C.F.R. 60, 61, or 63 that specifically reference 40 C.F.R. 63, Subpart SS.
Gas Turbines: EU IDs 4 - 9	
40 C.F.R. 60, Subpart GG –Standards of Performance for Stationary Gas Turbines; 40 C.F.R. 60.332(a) - Standards for NO_X 40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.8 – Performance Test (NO_X)	Stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr) but less than or equal to 107.2 gigajoules per hour (100 MMBtu/hr) based on the lower heating value of the fuel fired and that have commenced construction prior to October 3, 1982 are exempt from 40 C.F.R. 60.332(a) [40 C.F.R. 60.332(e)].

Non-Applicable Requirements	Reason for Non-Applicability
Gas Turbine: (EU ID 14)	
40 C.F.R. 60, Subpart GG; 40 C.F.R. 60.332(a)(2) – Standards for NO_X; 40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.8 – Performance Test (NO_X)	Stationary gas turbines with a manufacturer's rated base load at ISO conditions of greater than 30 MW are exempt from 40 C.F.R. 60.332(a)(2). [40 C.F.R. 60.332(d)].
Gas Turbines: EU IDs 1 - 14	
40 C.F.R. 60, Subpart GG; 40 C.F.R. 60.332(a)(1) - Standards for NO_X	Standard applies to *Electric Utility Stationary Gas Turbines*, as defined in subpart. Emission unit is not an Electric Utility Stationary Gas Turbine as defined in Subpart GG.
40 C.F.R. 60.334(a), (b) & (d) – Monitoring of Operations; 40 C.F.R. 60.335(b)(4) – Test Methods and Procedures	Applies only to affected turbines equipped with water injection to control emissions of NO_X. Emission unit is not equipped with water injection to control emissions of NOx.
40 C.F.R. 60.334(e), (f) – Monitoring of Operations	Applies only to affected turbines that commence construction after July 8, 2004. These emission units commenced construction prior to this date.
40 C.F.R. 60.334(g) – Monitoring of Operations	Applies only to affected turbines subject to the continuous monitoring requirements of 40 C.F.R. 60.334(a), (d), or (f).
40 C.F.R. 60.334(h)(2) – Monitoring of Operations	CPAI has not claimed an allowance for fuel bound nitrogen to calculate the applicable NO_X emission limit under 40 C.F.R. 60.332.
40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.7(a)(1) & (3) –Notification and Recordkeeping (Initial Notification); 40 C.F.R. 60.8 – Performance Test (Initial Performance Test Only); 40 C.F.R. 60.335(b) – Test Methods and Procedures	Obsolete requirements - completed as required.
40 C.F.R. 60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
Gas Turbines: EU IDs 12 and 13 (when fired on emergency fuel)	
40 C.F.R. 60, Subpart GG; 40 C.F.R. 60.332(a)(2) - Standards for NO_X; 40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.8 – Performance Tests (NO_X)	NSPS Subpart, GG NO_X standard 40 C.F.R. 60.332(a)(2) does not apply to natural gas-fired stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 MMBtu/hr) when being fired with an emergency fuel. [40 C.F.R. 60.332(k)].
Incinerator: EU ID 36	
18 AAC 50.050(b) – Incinerator Emission Standards: Particulate Matter	There is no particulate grain loading standard for incinerators with a rated capacity less than 1,000 lbs/hr.
Incinerators: EU ID 35 and 36	
18 AAC 50.055(c) – Sulfur Compounds Emitted from an Industrial Process or Fuel-burning Equipment	The incinerators are not industrial processes or fuel-burning equipment as defined in 18 AAC 50.990.
40 C.F.R. 60, Subpart Cb – Emissions Guidelines and Compliance Times for Existing Large Municipal Waste Combustors	The capacity of each incinerator is below the subpart threshold of 250 tons per day.
40 C.F.R. 60, Subpart Ce – Emission Guidelines and Compliance Times for (Existing) Hospital/Medical/Infectious (H/M/I) Waste Incinerators.	This subpart does not directly apply to operators of incinerators. Potential applicable requirements pertaining to H/M/I waste incinerators are implemented under the Federal plan requirements of 40 C.F.R. 62, Subpart HHH.
40 C.F.R. 60, Subpart Ea – Standards of Performance for Existing Municipal Waste Combustors.	The capacity of each incinerator is below the subpart threshold of 250 tons per day and construction of each incinerator did not occur during the subpart applicability dates of December 20, 1989 - September 20, 1994.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 60, Subpart Eb – Standards of Performance for New Large Municipal Waste Combustors.	The capacity of each incinerator is below the subpart threshold of 250 tons per day and construction of each incinerator commenced prior to the subpart applicability date of September 20, 1994.
40 C.F.R. 60, Subpart Ec – Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which Construction is Commenced after June 20, 1996	Commenced construction prior to rule applicability date (6/20/96)
40 C.F.R. 60, Subpart O – Standards of Performance for Sewage Treatment Plants;	These incinerators combust waste containing less than 10% sewage sludge (dry basis) and charge less than 1000 kg/day sewage sludge (dry basis).
40 C.F.R. 60, Subpart AAAA – New Source Performance Standards for New Small Municipal Waste Combustors.	The capacity of each incinerator is less than the applicability threshold (35 tons per day) and construction of each unit commenced prior to the applicability date of August 30, 1999.
40 C.F.R. 60, Subpart CCCC – Standards of Performance for New Commercial and Industrial Solid Waste Incineration Units.	Construction of each incinerator commenced prior to the applicability date of November 30, 1999.
40 C.F.R 60, Subpart EEEE – Standards of Performance for New Other Solid Waste Incineration Units	Construction of each incinerator commenced prior to the applicability date of December 9, 2004 and neither unit has been modified or reconstructed on or after June 16, 2006.
40 C.F.R. 61, Subpart E – National Emission Standards for Mercury; 40 C.F.R. 61.52(a) – Standards; 40 C.F.R. 61.53(a) – Stack Sampling	Applies to mercury ore processing facilities and/or chlor-alkali plants.
40 C.F.R. 61.53(d) – Stack Sampling; 40 C.F.R. 61.54 – Sludge Sampling	EPA granted a waiver of mercury (sludge) emission testing. [EPA letter dated 10/16/97].
40 C.F.R. 61.55(a) – Monitoring of Emissions and Operations	Mercury emissions do not exceed 1,600 grams/24-hr period.
40 C.F.R. 61.55(b) – (d) – Monitoring of Emissions and Operations	Applies to mercury ore processing facilities and/or chlor-alkali plants.
40 C.F.R. 61, Subpart A – General Prohibitions; 40 C.F.R. 61.09 – Notification of Startup	Obsolete requirements - completed as required.
40 C.F.R. 61.05(c) – Prohibited Activities	Emission unit was not an existing facility prior to the rule applicability date of the subpart (10/14/75).
40 C.F.R. 61.13 – Emission Tests and Waiver of Emission Tests	EPA granted a waiver of mercury (sludge) emission testing. [EPA letter dated 10/16/97].
40 C.F.R. 61.14 – Monitoring Requirements	Mercury emissions do not exceed 1,600 grams/24-hr period.
40 C.F.R. 62, Subpart FFF – Federal Plan Requirements for Existing Large Municipal Waste Combustors.	The capacity of each incinerator is below the subpart threshold of 250 tons per day.
40 C.F.R. 62, Subpart HHH – Federal Plan Requirements for (H/M/I) Waste Incinerators Constructed on or before June 20, 1996	The incinerators meet the exemption criteria specified in 40 C.F.R. 62.14400(b)(2) because they are "co-fired combustors" as defined in 40 C.F.R. 62.14490. Monitoring and recordkeeping required to maintain this exemption are included as applicable requirements for these incinerators.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 62, Subpart III – Federal Plan Requirements for Existing Commercial and Industrial Solid Waste Incinerators, except 40 C.F.R. 62.14525(c)(2)(ii).	Each incinerator burns greater than 30 percent municipal solid waste or refuse-derived fuel, is subject to a Federally enforceable requirement, and has a capacity to burn less than 35 tons per day of municipal solid waste or refuse-derived fuel. In addition, the Administrator was notified on May 6, 2004 that each incinerator meets these criteria. Therefore, each incinerator is exempt from 40 C.F.R. 62, Subpart III, except for the recordkeeping requirements found in 40 C.F.R. 62.14525(c)(2)(ii) [ref. 40 C.F.R. 62.14525(c)(2)].
40 C.F.R. 62, Subpart JJJ - Federal Plan Requirements for Existing Small Municipal Waste Combustors.	The capacity of each incinerator is less than the applicability threshold (35 tons per day).
Born Crude Heater: EU ID 16 and 30	
40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.7(a)(1) – (3) - Notification and Recordkeeping (Initial Notification); 40 C.F.R. 60.8 – Performance Test (Initial Performance Test Only); 40 C.F.R. 60.13(c) – Monitoring Requirements (Initial Performance Test Only); 40 C.F.R. 60, Subpart J – Standards of Performance for Petroleum Refineries; 40 C.F.R. 60.105(a)(4)(iii) – Monitoring of Emissions and Operations (Initial Performance Test Only); 40 C.F.R. 60.106 – Test Methods and Procedures	Obsolete requirements - completed as required.
40 C.F.R. 60.105(a)(3), (e)(3)(i) - Monitoring of Emissions and Operations	In place of the SO_2 monitor in 40 C.F.R. 60.105(a)(3), fuel gas H_2S content is monitored continuously, as provided in 40 C.F.R. 60.105(a)(4).
Kuparuk Unit Topping Plant (KUTP)	
40 C.F.R. 60, Subpart A – General Provisions; 40 C.F.R. 60.7(a)(1) – (3) - Notification and Recordkeeping (Initial Notification); 40 C.F.R. 60.8 – Performance Test (Initial Performance Test Only); 40 C.F.R. 60, Subpart J – Standards of Performance for Petroleum Refineries; 40 C.F.R. 60.106 – Test Methods and Procedures	Obsolete requirements - completed as required.
40 C.F.R. 60.7(a)(4) - Notification and Recordkeeping	This requirement only applies to "existing facilities", as defined in 40 C.F.R. 60.2.
40 C.F.R. 60.7(b) – (d) - Notification and Recordkeeping	40 C.F.R. 60.7(b) – (d) do not apply to affected facilities subject to 40 C.F.R. 60, Subpart VV [40 C.F.R. 60.486(k), incorporated by reference in 40 C.F.R. 60, Subpart GGG].
40 C.F.R. 60.7(c) – (d) – Excess Emissions Reporting (40 C.F.R. 60, Subpart GGG)	40 C.F.R. 60.7(c) & (d) apply only to New Source Performance Standards which require the installation of a continuous monitoring system (CMS) or monitoring device per Subpart GGG. CPAI is not required to install a CMS or monitoring device per Subpart GGG.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 6, Subpart J – Standards of Performance for Petroleum Refineries; 40 C.F.R. 60.102 – Standard for Particulate Matter; 40 C.F.R. 60.103 – Standard for Carbon Monoxide; 40 C.F.R. 60.104(a)(2), (b)-(d) – Standards for Sulfur Oxides; 40 C.F.R. 60.105(a)(1)-(2), (a)(5)-(13), (b)-(d), (e)(1)-(2),(4) – Monitoring of Emissions and Operations; 40 C.F.R. 60.107 – Reporting and Recordkeeping Requirements; 40 C.F.R. 60.108 – Performance Tests and Compliance Provisions	Standards and requirements apply to fluid catalytic cracking (FCC) unit catalyst regenerators or Claus sulfur recovery plants. Topping unit does not operate FCC unit catalyst regenerators or Claus sulfur recovery plants.
40 C.F.R. 60, Subpart GGG – Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries [Subpart VV – Standards of Performance for Equipment Leaks of VOC in SOCMI Industry Incorporated by Reference]; 40 C.F.R. 60.482-2 – Standards: Pumps in Light Liquid Service; 40 C.F.R. 60.482-7 – Standards: Valves in Gas/Vapor Service and Light Liquid Service	Pumps in light liquid service and valves in gas/vapor and light liquid service within a process unit that is located on the Alaskan North Slope are exempt from the requirements of 40 C.F.R. 60.482-2 & -7. [40 C.F.R. 60.593(e)]
40 C.F.R. 60.482-3 – Standards: Compressors	Topping unit does not operate compressors.
40 C.F.R. 60.482-4(a)-(b) – Standards: Pressure Relief Devices in Gas/Vapor Service.	All pressure devices in gas/vapor service at this stationary source are connected to a closed vent system capable of capturing and transporting leakage from the pressure relief device either back to the process or to a control device (flare system). Pressure relief devices in gas/vapor service so equipped are exempt from 40 C.F.R. 60.482-4(a) & (b). [40 C.F.R. 60.482-4(c)]
40 C.F.R. 60.482-10(f)(1)(i) – Standards: Closed Vent Systems and Control Devices (Initial Inspection)	Obsolete requirements - completed as required.
40 C.F.R. 61, Subpart FF – National Emission Standard for Benzene Waste Operations (40 C.F.R. 61.342 - 61.355)	The total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) as stated in CPAI letter to EPA dated 6/20/01. Only the reporting and recordkeeping requirements of 40 C.F.R. 61.356 and 61.357 apply.
40 C.F.R. 61.357(a) – Initial Report	Obsolete requirement – completed as required. (6/20/01 letter to EPA)
40 C.F.R. 63, Subpart CC – National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries	Stationary source does not include any petroleum refinery process units because all process units at the stationary source have a SIC code of 1311.
40 C.F.R. 64 – Compliance Assurance Monitoring	This emission unit does not have potential pre-control device emissions of an applicable regulated air pollutant equal to or greater than 100 tpy of criteria pollutants, 10 tpy of any hazardous air pollutant (HAP), or 25 tpy of all HAPs combined.
NGL Plant (Miscible Injection)	
40 C.F.R. 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants	Commenced construction prior to rule applicability date of subpart (1/20/84).

Non-Applicable Requirements	Reason for Non-Applicability
Sweetening Plant	
40 C.F.R. 60, Subpart LLL - Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions	Sweetening Plant is out of service. If brought back into service, provisions of this subpart will not apply to the plant because produced gas is not released to the atmosphere. [40 C.F.R. 60.640(e)]
Drain Systems	
40 C.F.R. 63, Subpart RR – National Emission Standards for Individual Drain Systems	Provisions only apply to drain systems affected by 40 C.F.R. 60, 61, or 63 that specifically reference to 40 C.F.R. 63, Subpart RR.
Oil-Water Separators	
40 C.F.R. 63, Subpart VV – National Emission Standards for Oil-Water Separators and Organic-Water Separators	Provisions only apply to oil-water separators and organic-water separators affected by 40 C.F.R. 60, 61, or 63 that specifically reference to 40 C.F.R. 63, Subpart VV.
Stationary Source-Wide (Except KUTP)	
40 C.F.R. 61, Subpart FF – National Emission Standard for Benzene Waste Operations	Stationary source does not contain a chemical manufacturing plant, coke by-product recovery plant, or petroleum refinery.
40 C.F.R. 60, Subpart J – Standards of Performance for Petroleum Refineries; 40 C.F.R. 60, Subpart GGG – Standards of Performance for Equipment leaks of VOC in Petroleum Refineries	Stationary source does not meet the definition of a petroleum refinery because other than KUTP the stationary source does not engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products - distillation of petroleum or - redistillation, cracking or reforming of unfinished petroleum derivatives.
Stationary Source-Wide (Except KUTP)	
40 C.F.R. 64 – Compliance Assurance Monitoring	These units do not use a control device to achieve compliance with any emission limitation or standard except to comply with 40 C.F.R. 63 subpart ZZZZ standards which were promogated after the requirements of 40 C.F.R. 64.
Stationary Source-Wide	
40 C.F.R. 60, Subpart QQQ – Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Commenced construction prior to rule applicability date of Subpart QQQ (5/4/87).
40 C.F.R. 61, Subpart A – General Provisions (except for incinerators tag nos. H-250 and H-347)	Requirements only apply to emission units subject to any provision of 40 C.F.R. 61.
40 C.F.R. 61, Subpart J – National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene	No process components in benzene service, as defined by subpart (10 % benzene by weight).
40 C.F.R. 61, Subpart V – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	Stationary source does not operate equipment in volatile hazardous air pollutant (VHAP) service (~10 percent VHAP by weight).
40 C.F.R. 61, Subpart V – National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	Stationary source does not operate storage vessels in benzene service.
40 C.F.R. 61, Subpart M – National Emission Standard for Asbestos; 40 C.F.R. 61.142 - Standard for Asbestos Mills	Stationary source is not an Asbestos Mill.
40 C.F.R. 61.143 - Standards for Roadways	Stationary source roadways not exposed to asbestos tailings or asbestos containing waste.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 61.144 - Standard for Manufacturing	Stationary source does not engage in any manufacturing operations using commercial asbestos.
40 C.F.R. 61.146 - Standard for Spraying	Stationary source does not spray apply asbestos containing materials
40 C.F.R. 61.147 - Standard for Fabricating	Stationary source does not engage in any fabricating operations using commercial asbestos.
40 C.F.R. 61.148 - Standard for Insulating Materials	Stationary source does not install or reinstall, on any stationary source component, insulation material containing commercial asbestos.
40 C.F.R. 61.149 - Standard for Waste Disposal for Asbestos Mills	Applies only to those stationary sources subject to 40 C.F.R. 61.142 (Asbestos Mills).
40 C.F.R. 61.151 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Applies only to those stationary sources subject to 40 C.F.R. 61.142, 40 C.F.R. 61.144, or 40 C.F.R. 61.147 (Asbestos Mills, manufacturing or fabricating).
40 C.F.R. 61.152 - Standard for Air-Cleaning	Stationary source does not use air cleaning equipment.
40 C.F.R. 61.153 - Standard for Reporting	No reporting requirements apply for emission units subject to 40 C.F.R. 61.145 (demolition and renovation) [ref. 40 C.F.R. 61.153(a)].
40 C.F.R. 61.154 - Standards for Active Waste Disposal Sites	Stationary source not an active waste disposal site and does not receive asbestos containing waste material.
40 C.F.R. 61.155 - Standard for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations	Stationary source does not process regulated asbestos containing material (RACM).
40 C.F.R. 61, Subpart BB –National Emission Standard For Benzene Emissions from Benzene Transfer Operations	Stationary source does not conduct benzene transfer operations.
40 C.F.R. 63, Subpart A – General Provisions, except 40 C.F.R. 63.1(b) and 40 C.F.R. 63.10(b)(3).	Requirements only apply to stationary sources subject to any provision of 40 C.F.R. 63. This stationary source is not subject to 40 C.F.R. 63, Subpart A, except for the requirement to determine rule applicability (40 C.F.R. 63.1(b)) and to keep records of rule applicability determination (40 C.F.R. 63.10(b)(3)).
40 C.F.R. 63, Subpart B – Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections 112(g) and 112(j).	Stationary source is not subject to any control technology standards under 40 C.F.R. 63 because it is not a major source of HAPs.
40 C.F.R. 63, Subpart EEEE – National Emission Standards for Organic Liquid Distribution	CPF-1 is not a major source of HAPs. In addition, CPF-1 is an oil and natural gas production field facility as the term "facility" is defined in 40 C.F.R. 63.761 of 40 C.F.R. 63, Subpart HH. Organic liquid distribution (OLD) operations do not include the activities and equipment used to process, store, or transfer organic liquids at oil and natural gas production field facilities. [40 C.F.R. 63.2334(c)(1)]
40 C.F.R. 63, Subpart HH – National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities	This stationary source is not a major source of HAPs and exclusively processes, stores, or transfers "black oil" (defined in the final promulgated rule as a petroleum liquid with an initial producing gas-to-oil ratio (GOR) less than 1,750 scf/bbl and an API gravity less than 40 degrees). Therefore, the black oil exemption applies.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63, Subpart HHH – National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities	Stationary source is considered part of the oil and natural gas production source category (Subpart HH) and not part of the natural gas transmission and storage category (Subpart HHH) because it transports natural gas prior to the point of custody transfer where operations may be affected by Subpart HHH.
40 C.F.R. 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning	Stationary source does not operate halogenated solvent cleaning machines.
40 C.F.R. 68 - Accidental Release Prevention Requirements: Risk Management Programs [40 C.F.R. 68.112(r)]	"Naturally occurring hydrocarbon mixtures" (crude oil, condensate, natural gas and produced water), prior to entry into a petroleum refining process unit (NAICS code 32411) or a natural gas processing plant (NAICS code 211112) are exempt from the threshold determination. (See Final Rule exempting from threshold determination regulated flammable substances in naturally occurring hydrocarbon mixtures prior to initial processing, 63 FR 640 [January 6, 1998]). Less than 10,000 lbs of other mixtures containing regulated flammable substances that meet the criteria for an NFPA rating of 4 for flammability are stored at the stationary source. Therefore, CPF-1, a crude petroleum and natural gas production facility, (NAICS code 211111) does not process or store regulated flammable or toxic substances in excess of threshold quantities.
40 C.F.R. 82.1, Subpart A – Production and Consumption Controls	Stationary source does not produce, transform, destroy, import or export Class l or Group I or II substances or products.
40 C.F.R. 82.30, Subpart B – Servicing of Motor Vehicle Air Conditioners	Stationary source is not subject to any control technology standards under 40 C.F.R. 63 because it is not a major source of HAPs.
40 C.F.R. 82.60, Subpart C -Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.80, Subpart D – Federal Procurement	Subpart applies only to Federal Departments, agencies, and instrumentalities.
40 C.F.R. 82.100, Subpart E - The Labeling of Products Using Ozone-Depleting Substances.	Stationary source is not a manufacturer or distributor of Class I and II products or substances.
40 C.F.R. 82.158, Subpart F – Recycling and Emissions Reduction.	Stationary source does not manufacture or import recovery and recycling equipment
40 C.F.R. 82.160 - Approved Equipment Testing Organizations	Stationary source does not contract equipment testing organizations to certify recovery and recycling equipment.
40 C.F.R. 82.164 –Reclaimer Certification	Stationary source does not sell reclaimed refrigerant.
40 C.F.R. 82, Subpart F, Appendix C - Method for Testing Recovery Devices for Use With Small Appliances	Stationary source is not a third party entity that certifies recovery equipment.
40 C.F.R. 82, Subpart F, Appendix D - Standards for Becoming a Certifying Program for Technicians	Stationary source does not have a technician certification program.
40 C.F.R. 82.174(a), Subpart G - Significant New Alternatives Policy Program: Prohibitions	Stationary source does not manufacture substitute chemicals or products for ozone- depleting compounds.
40 C.F.R. 82.270(a), Subpart H - Halon Emissions Reduction	Stationary source does not manufacture halon.

Non-Applicable Requirements	Reason for Non-Applicability
Activities subject to 40 C.F.R. 61, Subpart M – Standard for Demolition and Renovation (40 C.F.R. 61.145)	
40 C.F.R. 61, Subpart A – General Provisions; 40 C.F.R. 61.05(a) - Prohibited Activities; 40 C.F.R. 61.07 - Application for Approval of Construction or Modification; 40 C.F.R. 61.09 -Notification of Startup	Owners or operators of demolition and renovation operations are exempt from the requirements of 40 C.F.R. 61.05(a), 61.07, and 61.09. [ref. 40 C.F.R. 61.145(a)(5)]
40 C.F.R. 61.10 - Source Reporting and Waiver Request	Demolition and renovation operations exempt from 40 C.F.R. 61.10(a). [ref. 40 C.F.R. 61.153(b)]
40 C.F.R. 61.13 -Emission Tests; 40 C.F.R. 61.14 - Monitoring Requirements	Emission tests or monitoring is not required under the standards for demolition and renovation. [40 C.F.R. 61.145]
All Combustion Turbines	
40 C.F.R. 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines	Construction, modification, or reconstruction of each turbine commenced prior to the applicability date of February 18, 2005. Permit shield for Subpart KKKK only applies to currently installed units until modified, reconstructed or replaced.
40 C.F.R. 63, Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	CPF-1 is not a major source of HAPs. In addition, turbines located on the North Slope of Alaska are categorically exempt from 40 C.F.R. 63, Subpart YYYY.
All Reciprocating IC Engines	
40 C.F.R. 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Construction, modification, or reconstruction of each IC engine commenced prior to the applicability date of July 11, 2005. Permit shield for Subpart IIII only applies to currently installed units until modified, reconstructed or replaced.
Stationary Engines Subject to NESHAP Subpart ZZZZ All Existing Engines - EU IDs 19 – 28, 64, and 65 (G-701-A, G-701-B, P-CL04-ECC, P-1A02, P-1F02, P-1G02, P-1L02, P-1Q02, P-1R02, P-1Y02, KS5010A, KS5010B)	
40 C.F.R. 63.6600, 40 C.F.R. 63.6601, and 40 C.F.R. 63.6602, Subpart ZZZZ - Emission Limitations	The stationary source is not a major source of HAP emissions.
40 C.F.R. 63, Subpart ZZZZ, Table 2b - Operating Limitations	There are no requirements in Table 2b of Subpart ZZZZ that apply to these engines because they are emergency engines and/or rated at ≤500 bhp.
40 C.F.R. 63.6610 and 40 C.F.R. 63.6611, Subpart ZZZZ – Testing and Initial Compliance Requirements	The stationary source is not a major source of HAP emissions
40 C.F.R. 63.5, Subpart A – Construction and Reconstruction	The preconstruction review requirements in this section apply to new affected sources and reconstructed affected sources that are major-emitting. Stationary source is an area source of HAP emissions and these engines are existing engines.
Stationary Engines Subject to NESHAP Subpart ZZZZ All Existing Non-Emergency Engines - EU IDs 21 – 28, 64, and 65 (P-CL04-ECC, P-1A02, P-1F02, P-1G02, P-1L02, P-1Q02, P-1R02, P-1Y02, KS5010A, KS5010B)	
40 C.F.R. 63.6625(f), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	These are not emergency engines.
40 C.F.R. 63.6640(f), Subpart ZZZZ – Continuous Compliance Demonstration	These are not emergency engines.
40 C.F.R. 63.6655(f), Subpart ZZZZ - Recordkeeping Requirements	These engines are not emergency engines and are not required to limit hours of operation per 40 C.F.R. 63.6640(f).

Non-Applicable Requirements	Reason for Non-Applicability
Stationary Engines Subject to NESHAP Subpart ZZZZ Existing Non-Emergency Engines (hp≤300) - EU IDs 21, 22, 25 – 28 (P-CL04-ECC, P-1A02, P-1L02, P-1Q02, P-1R02, P-1Y02)	
40 C.F.R. 63.6635, Subpart ZZZZ – Continuous Compliance Demonstration	No emission or operating limitations apply to these engines.
Stationary Engines Subject to NESHAP Subpart ZZZZ Existing Emergency Engines - (G-701-A, G-701-B) Existing Non-Emergency Engines (hp≤300) - EU IDs 21, 22, 25 – 28 (P-CL04-ECC, P-1A02, P-1L02, P-1Q02, P-1R02, P-1Y02)	
40 C.F.R. 63.6604, Subpart ZZZZ - Fuel Requirements	The requirement to comply with 40 C.F.R. 80.510(b) does not apply to existing emergency engines or non-emergency engines with a site rating of ≤300 bhp.
40 C.F.R. 63.6612, Subpart ZZZZ – Testing and Initial Compliance Requirements	There are no requirements in either Table 4 or Table 5 of Subpart ZZZZ that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ.
40 C.F.R. 63.6615, Subpart ZZZZ – Subsequent Testing 40 C.F.R. 63.6620, Subpart ZZZZ – Performance Tests and Procedures	There are no performance testing requirements that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ.
40 C.F.R. 63.6625(g), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	This requirement does not apply to emergency engines or non-emergency engines rated at ≤300 bhp.
40 C.F.R. 63.6630(b), (c), Subpart ZZZZ – Initial Compliance Demonstration	There are no performance testing requirements that apply to these engines because there are no applicable emission limitations per 40 C.F.R. 63.6610, §63.6611 and Table 2d of Subpart ZZZZ.
40 C.F.R. 63.6645, Subpart ZZZZ - Notification Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Per 40 C.F.R. 63.6645(a)(5), initial notification is not required for existing stationary emergency CI RICE or an existing stationary CI RICE that is not subject to any numerical emission standards.
40 C.F.R. 63.6650, Subpart ZZZZ – Reporting Requirements 40 C.F.R. 63.9, Subpart A – Notification Requirements	Compliance status reporting requirements only apply to CI RICE subject to a numerical emission standard.
40 C.F.R. 63.6655(a) – (d), Subpart ZZZZ - Recordkeeping Requirements	There are no emission or operational limits which apply to the engines.
40 C.F.R. 63.7, Subpart A – Performance Testing Requirements	There are no performance testing requirements that apply to these engines.
40 C.F.R. 63.8, Subpart A – Monitoring	Per 40 C.F.R. 63.6645(a)(5), these engines are not subject to the requirements of §63.8(e), (f)(4) and (f)(6).
Stationary Engines Subject to NESHAP Subpart ZZZZ Non-Emergency Engines (300<hp≤500) – EU IDs 23, 24, 64, and 65 (P-1F02, P-1G02, KS5010A, KS5010B)	
40 C.F.R. 63.6615, Subpart ZZZZ – Subsequent Testing	There are no subsequent performance testing requirements that apply to these engines because the engines are rated ≤500 bhp and are not located at a major stationary source of HAP emissions.
40 C.F.R. 63.6625(e), Subpart ZZZZ – Monitoring, Installation, Collection, Operation and Maintenance Requirements	These are not emergency engines and these engines are subject to a numerical emission limit.
40 C.F.R. 63.6630(b), Subpart ZZZZ – Initial Compliance Demonstration	There are no operating limitations which apply to this engine per Table 2b of 40 C.F.R. 63, Subpart ZZZZ.

Non-Applicable Requirements	Reason for Non-Applicability
40 C.F.R. 63.6635 and 63.6640(a), Subpart ZZZZ – Continuous Compliance Demonstration 40 C.F.R. 63, Subpart ZZZZ, Table 6	These engines are rated ≤500 bhp and are subject to a numerical emission limit. There are no methods specified in Table 6 of Subpart ZZZZ for this type of engine.
40 C.F.R. 63.6655(d) & (e), Subpart ZZZZ - Recordkeeping Requirements	There are no applicable requirements in Table 6 of Subpart ZZZZ for this type of engine. These are not emergency engines and they are not subject to any management practices (i.e., oil change, filter change, etc.) in Table 2d of Subpart ZZZZ.
All Nonroad Engines	
18 AAC 50.055(a)(1) – Fuel-Burning Equipment Emission Standards: Visible Emissions; 18 AAC 50.055(b)(1) – Fuel-Burning Equipment Emission Standards: Particulate Matter; 18 AAC 50.055(c) – Fuel-Burning Equipment Emission Standards: Sulfur Compound Emissions	Nonroad (mobile) internal combustion engines are not included in the definition of fuel-burning equipment (18 AAC 50.990).

Section 11. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Emission Unit ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clineometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Present, is Plume…: check "attached" if water droplet plume forms prior to exiting stack, and "detached" if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.
- Wet Bulb Temperature: can be measured using a sling psychrometer
- RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
- Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
- Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
- Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
- Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.
- Observer's Signature, Date: sign and date after performing VE observation.
- Organization: observer's employer.
- Certified By, Date: name of "smoke school" certifying observer and date of most recent certification.

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY DIVISION - VISIBLE EMISSIONS OBSERVATION FORM

Page No._____

Source Name	Type of Source			Observation Date		Start Time		End Time
				Sec / Min	0	15	30	45	Comments
Address				1					
City	State	Zip		2					
Phone # (Key Contact)	Source ID Number			3					
Process Equipment	Operating Mode			4					
Control Equipment	Operating Mode			5					
Describe Emission Point				6					
Height above ground level	Height relative to observer	Inclinometer Reading		7					
Distance From Observer	Direction From Observer Start / End			8					
Describe Emissions & Color Start / End				9					
Visible Water Vapor Present? No / Yes	If yes, determine approximate distance from the stack exit to where the plume was read			10					
Point in Plume at Which Opacity Was Determined				11					
Describe Plume Background	Background Color Start / End			12					
Sky Conditions: Start / End				13					
Wind Speed	Wind Direction From Start / End			14					
Ambient Temperature	Wet Bulb Temp	RH percent		15					
NOTES: 1 Stack or Point Being Read	2 Wind Direction From			16					
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks				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 Observer's Name					
Print Name:				Observer's Signature			Date		
Signature:									
Title	Date			Organization					
				Certified By:				Date	

Section 12. Material Balance Calculation

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

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

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

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

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

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

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

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

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

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

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

The **wt%S_{fuel}**, **wt%C_{fuel}**, and **wt%H_{fuel}** are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Conditions 20.4and 20.10. The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

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

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations not 0.01 and if **vol%$_{dry}$O$_{2, exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 13. Emission Factors

Table G – Emission Factors

Type of Equipment	NO_X	SO_2	CO	PM	VOC
Gas Turbines EU IDs 1 - 3 and 8 - 13	Allowable concentration or representative source test data if less than allowable concentration	Actual monthly H_2S concentration	Most recent representative source test data	14.0 lb/MMscf	0.0021 lb/MMBtu (Table 3.1-2a, AP-42)
Gas Heaters EU IDs 16, 37 - 41, 43 - 45, and 48 - 50	Most recent representative source test data	Actual monthly H_2S concentration	Most recent representative source test data	2.5 lb/MMscf	None Applicable
Incinerator EU ID 36	100 lb/MMscf and 3 lb/ton refuse (Tables 1.4-1 and 2.1-12, AP-42)	Actual monthly H_2S concentration and 2. 5 lb/ton refuse (Table 2.1-12, AP-42)	17 lb/MMscf and 10 lb/ton refuse (Tables 1.4-1 [previous edition] and 2.1- 12, AP-42)	7.6 lb/MMscf and 7 lb/ton refuse (Tables 1.4-2, and 2.1-12, AP-42)	3 lb/MMscf and 3 lb/ton refuse (Tables 1.4-2 [previous edition] and 2.1-12, AP- 42)

Section 14. ADEC Notification Form[10]

Kuparuk Central Production Facility #1 — **Stationary Source (Facility) Name**

AQ0267TVP02 — **Air Quality Permit Number**

ConocoPhillips Alaska, Inc. — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?
Date: _____ / _____ / _____ Time: _____ :/ _____

When did the event/deviation occur?
Begin Date: _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)
End Date _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

What was the duration of the event/deviation? ____ : ____ (hrs:min) or _____ days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

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

☐ Excess Emissions – Complete Section 1 and Certify

☐ Deviation from Permit Condition – Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

Section 1. Excess Emissions

(a) Was the exceedance: ☐ Intermittent or ☐ Continuous

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

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

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

(d) Emissions Units Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

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

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

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

[10] Revised as of August 20, 2008.

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

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

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

Certify Report (Go to end of form.)

Section 2. Permit Deviations

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

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recording/Reporting/Compliance Certification

☐ Standard Conditions Not Included in the Permit

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

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Recordkeeping Failure

☐ Insignificant Emission Unit

☐ Stationary Source Wide

(b) Emission Unit Involved:

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

EU ID	EU Name	Permit Condition/ Potential Deviation

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

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

Certification:
Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.
Printed
Name: _____ Title: _____ Date: _____
Signature: _____ Phone Number: _____

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

To Submit this Report:

Fax to: 907-451-2187
Or
Email to: DEC.AQ.Airreports@alaska.gov
If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 110.
Or
Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643
Or
Phone Notification: 907-451-5173
Phone notifications require a written follow-up report.
Or
Submission of information contained in this report can be made electronically at the following website:
https://myalaska.state.ak.us/dec/air/airtoolsweb
If submitted online, report must be submitted by an authorized E-Signer for the stationary source.

[18 AAC 50.346(b)(3)]

Section 15. Air Exclusion Zone Surveillance Monitoring Form

Air Exclusion Zone
Surveillance Monitoring Form
(please complete one form for each calendar day of operations)

Date: _____

Pad Surveillance

Trip# & Time	**Done by**	**Comments**

Note: Pad surveillance must be performed at least once per day during operations.

Section 16. Emission Inventory Form

State of Alaska Department of Environmental Conservation ***Division of Air Quality*** ADEC Reporting Form Emission Inventory Reporting	Emission Inventory Year- [ ]
Mandatory information is highlighted. Make additional copies as needed.	
Inventory start date:	
Inventory end date:	
Inventory Type:	
Facility Information:	
ADEC Stationary Source ID:	
(Stationary Source) Facility Name:	
AFS ID:	
Census Area/ Community:	
Line of Business (NAICS):	
Contact/Owner Name:	
Contact Owner Address:	
Contact/Owner Phone Number:	
Facility Physical Address:	
Lat: Long:	
Mailing Address :	
Emission Unit:	
ID:	
Description:	
Manufacturer:	
Model Number:	
Serial Number:	
Year of Manufacture:	
Maximum Nameplate Capacity:	
Design Capacity (BTU/hr):	
Control Equipment (List All)	
Control Equipment Type(Primary or Secondary):	
ID:	
Type:	
Manufacturer:	
Model:	
Control Efficiency (%):	

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

EMISSIONS

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

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

Certification:

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

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

To Submit this report:

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

Or

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

https://myalaska.state.ak.us/dec/air/airtoolsweb/EmissionInventory.aspx

[18 AAC 50.346(b)(9)]

Alaska Department of Environmental Conservation
Air Permits Program

Public Comment Draft - August 30, 2011

ConocoPhillips Alaska, Inc.
Kuparuk Central Production Facility #1

STATEMENT OF BASIS
of the terms and conditions for
Permit No. AQ0267TVP02

Reviewed by Chris Kent
ADEC AQ/APP Anchorage

Prepared by Julia Handley/Enviroplan Consulting

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit No. AQ0267TVP02.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit No. AQ0267TVP02 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by ConocoPhillips Alaska, Inc., and ConocoPhillips Alaska, Inc. is the Permittee for the stationary source's operating permit. The SIC code for this stationary source is 1311 - Petroleum and Natural Gas Production .

CPF-1 processes crude oil fluids produced from the Kuparuk River Unit located on the North Slope of Alaska. CPF-1 can process 150,000 barrels of crude oil per day and 250 million standard cubic feet of gas. Three-phase crude is transferred from the surrounding drill sites to CPF-1 where it is separated into crude oil for sale, produced water for reinjection, and natural gas for further processing as fuel and for reinjection. Energy needed to support operations comes primarily from combustion of produced hydrocarbon gas.

CPF-1 also contains a crude oil topping unit, KUTP, for production of Arctic grade diesel. Diesel is used in vehicles, support equipment, and in various well work activities. CPF-1 is also the location of two crude oil divert tanks which are used during upset or emergency situations which may affect transportation of oil.

The Kuparuk Operations Center (KOC), which is the main office and camp service for the Kuparuk River Unit, is located adjacent to CPF-1 on the same gravel pad. A potable water and wastewater treatment plant services KOC. Two incinerators are located at the wastewater treatment plant which are used to incinerate trash generated at KOC and sewage sludge generated at the treatment plant.

EMISSION UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 C.F.R. 71.5(c)(3).

The emission units at the Kuparuk Central Production Facility #1 that are classified and have specific monitoring, recordkeeping, and reporting requirements are listed in Table A of Operating Permit No. AQ0267TVP02.

Table A of Operating Permit No. AQ0267TVP02 contains information on the emission units regulated by this permit as provided in the application. The table is provided for informational and identification purposes only. Specifically, the emission unit rating/size provided in the table is not intended to create an enforceable limit.

EU IDs 1, 2, and 3 were upgraded from GE Frame 3J AT models to GE Frame 3K HE models in May 2004, October 2003, and November 2004, respectively. These units were originally constructed in the early 1980s after issuance of EPA permit PSD-X82-01, dated December 29, 1981, which authorized construction of these units and other equipment at CPF-1. The units were later modified in May 1993 to upgrade to Advanced Technology parts (ATP upgrade). The J-to-K upgrades completed in 2003 and 2004 were authorized by the Department without the

need to first obtain a construction permit as documented in correspondence to CPAI dated November 13, 2003. Letters notifying the Department and EPA of the "off-permit" facility changes were provided by the Permittee on October 9, 2003, May 6, 2004, and October 14, 2004.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE as indicated in the permit application from the Kuparuk Central Production Facility #1 is shown in the table below.

Table H - Emissions Summary, in Tons Per Year (TPY)

Pollutant	NO_X	CO	PM-10	SO_2	VOC	HAPs	CO_2e[2]	Total
PTE	3,341	1,080	130	324	129	36.1[1]	TBD	5040
Assessable PTE	3,341	1,080	130	324	129	0	0	5,004

Table Note: 1) HAP total is 22 tpy for CPF-1 production pad emission units only.

The assessable PTE listed under Condition 81.1 is the sum of the emissions of each individual regulated air pollutant for which the stationary source has the potential to emit quantities greater than 10 TPY or greater than GHG permitting thresholds[3]. For the combustion emission units, essentially all the Hazardous Air Pollutant (HAP) emissions are a subset of the VOC emissions, so HAP emissions are not included in the total column for the row labeled "PTE". Doing so would double count emissions. (Note: The HAP emissions shown in Table H are the total HAP PTE for all regulated emission units at all CPF-1 locations. However, per 40 C.F.R. 71.2 and CAA 112(b)1, emissions from oil or gas exploration or production wells with their associated equipment are not aggregated when determining the total potential to emit hazardous air pollutants. Therefore, emissions from units located at any drill site, including DS1E, DS1J, and DS1R are not aggregated with emission units located at CPF-1 when determining the HAPs major status of the stationary source.) The emissions listed in Table A are estimates that are for informational use only. The listing of the emissions does not create an enforceable limit to the stationary source.

Potential criteria pollutants and HAPs emissions were estimated in the November 2009 amended permit renewal application. The PTE for criteria pollutants was estimated based on AP-42 emission factors and any allowable emission rates and/or operational limits applicable to emission units at the stationary source. Potential emissions of SO_2 are estimated based on mass balance and an assumed fuel gas H_2S content of 200 ppmv and liquid fuel sulfur content of 0.25 percent by weight, except for emission units with a fuel sulfur limit of 0.15 percent by weight. [*A description of GHG emitting activities will be provided by CPAI prior to or as part of the PN process.*]

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1 Potential to Emit or PTE means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is Federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(23), effective 12/3/05.

2 CO_2e *emissions* are defined as the sum of the mass emissions of each individual GHG adjusted for its global warming potential (GWP).

3 See EPA's November 2010 PSD and Title V Permitting Guidance, Table V-A.

HAP emissions were calculated using GRI-HAPCalc Version 3.01 software, AP-42 emission factors, and, for turbine formaldehyde emissions, the results of an August 2005 CPF-3 Frame 5 HAP stack test conducted by the Permittee. Each individual HAP has a PTE less than 10 TPY; the estimated aggregated HAP total emission rate is 22 TPY from emission units at the CPF-1 production pad. The highest individual HAP is HCl (due entirely to potential emissions from the CPF-1 incinerators) with an estimated emission rate of 6 TPY.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[4] must obtain a Title V permit consistent with 40 C.F.R. Part 71, as adopted by reference in 18 AAC 50.040.

Except for sources exempted or deferred by AS 46.14.120(e) or (f), AS 46.14.130(b) lists three categories of sources that require an operating permit:

(1) A major source;

(2) A stationary source subject to Federal new source performance standards or national emission standards;

(3) Another stationary source designated by the Federal Administrator by regulation.

This stationary source requires an operating permit because it is further classified under 18 AAC 50.326(a) and 40 C.F.R. 71.3(a) as:

a) A major stationary source as defined in Section 302 of the Clean Air Act that directly emits, or has the potential to emit, 100 tpy or more of any air pollutant,

AIR QUALITY PERMITS

Previous Air Quality Permit to Operate

Title I (Construction and Minor) Permits

Construction Permit No. 267CPT was issued to this facility on February 13, 1998 and was administratively revised on June 27, 2001. Construction Permit No. 267CPT01 was issued to this stationary source on April 28, 2003 and amended Operating Permit No. 9373-AA004 and PSD Construction Permit No. 9773-AC016 Revision 1. The BACT emission limits for the stationary source contained in EPA PSD permit number PSD X82-01, as amended - October 7, 1997, have been adopted as the current limit in Construction Permit No. 267CPT01. The stationary source-specific requirements established in this construction permit were included AQ0267TVP01.

By letter dated May 28, 2003, the Permittee requested an administrative amendment to Operating Permit No. 267TVP01. The administrative amendment, Revision 1 of the permit, was issued on June 20, 2003. The revision consisted of changing the expiration date of the permit from April 28, 2008 to May 27, 2008.

Construction Permit No. 267CP02 was issued March 26, 2004 and was later rescinded by Minor Stationary Source Permit No. AQ0267MSS01 which was issued August 5, 2005 and administratively revised in AQ0267MSS01, Rev. 1, on March 24, 2006. This same permit was later rescinded and replaced by Minor Permit No. AQ0267MSS02, which was issued on

[4] "Title V source" means a stationary source classified as needing a permit under AS 14.130(b) *[ref. 18 AAC 50.990(111)]*.

November 13, 2006. These permits authorize use of generic drill rig and associated equipment, well serving equipment, one portable flare, and construction of production heaters at Kuparuk Drill Sites 1E and 1J. Permit No. AQ0267TVP01, Revision 2 was issued on August 8, 2007 to incorporate Minor Permit No. AQ0267MSS02.

The following changes were made as part of AQ0267TVP01, Revision 2:

General revisions that apply to incorporation of minor permit no. AQ0267MSS02

- Updated the emission unit inventory to reflect new equipment permitted under AQ0267MSS02, shut down of a freeze protection pump at DS1E, and upgrades to the Frame 3 turbines from J model to K model;
- Updated the assessable PTE to account for the emission unit inventory changes stated above; and
- Updated the Statement of Basis based on permit revisions.

Incorporation of Terms and Conditions of Minor Permit No. AQ0267MSS02

- Updated the visible emissions and PM monitoring, recordkeeping and reporting conditions of the permit to incorporate new permitted equipment and the requirements stated in permit no. AQ0267MSS02.
- Added fuel consumption and hours of operation monitoring for new equipment.
- Revised the liquid fuel sulfur content limits to incorporate the limits in permit no. AQ0267MSS02.
- Carried forward from permit no. AQ0267MSS02 the limits established to protect ambient air quality to avoid classification as PSD major.
- Carried forward the requirement to establish and monitor exclusion zones around DS1E and DS1J; and
- included the off-permit change provisions stated in permit no. AQ0267MSS02.

Add two new Owner Requested Limits

- Add the incinerator recordkeeping requirements of 40 C.F.R. 60, Subpart O and 40 C.F.R. 62, Subpart III to demonstrate exemptions and to remain exempt from the limits of these rules.

Add Operational Flexibility Provisions

- Add the provisions of 40 C.F.R. 71.6(a)(13).

Revised the Permit to indicate that NSPS Subpart J applies to the flare tag no. H-KF01

- Add flare tag no. H-KF01 to conditions that address NSPS Subpart J and applicable portions of NSPS Subpart A

General Permit Revisions and Corrections

- Re-numbered the emission unit ID(s) -out the permit to account for equipment that has been added and subtracted. Insert the new EU ID(s) into the appropriate EU group types in Table A.
- Updated the citations to NSPS and NESHAP standards to reflect the currently adopted versions of these rules (as of the December 14, 2006 amendment to the Alaska air

quality regulations).

- Removed all tanks from the permit that were formerly subject to NSPS Subpart Kb and conditions in the permit that address Subpart Kb.
- Corrected the VOC BACT emission limit for incinerator H-347 to match the administrative revision made to EPA permit no. PSD-X82-01, dated October 27, 2003.
- Added applicable recordkeeping provisions of NSPS Subpart Dc to the permit for the DS1E and DS1J production heaters.
- Revised conditions that outline the NSPS Subpart GG monitoring requirements to incorporate the revisions to Subpart GG dated July 8, 2004.
- Added a new condition to include the applicable recordkeeping and reporting requirements of 40 C.F.R. 61, Subpart FF.
- Revised the permit shield to address new equipment, changes to NSPS Subpart Kb, and new rules that have been promulgated since permit no. AQ0267TVP01 was first issued.
- Updated the HAP emissions totals stated in Table A of the Statement of Basis to incorporated the updated calculations provided by the Permittee in October 2006 application to amend the Permit; and
- made other general corrections to the permit and Statement of Basis.

Minor Stationary Source Permit No. AQ0267MSS03 was issued December 14, 2007 and authorized the use of two well injection pump engines at DS1R. Also found at DS1R is a drill site production heater and a freeze protection pump which were authorized to operate at DS1R prior to the issuance of permit AQ0267MSS03.

All stationary source-specific requirements established in permit nos. 267CPT01, 9773-AC016 (Rev. A),AQ0267MSS02, AQ0267MSS03, AQ0267MSS04, and AQ0267TVP01, Revision 2 are included in Operating Permit No. AQ0267TVP02.

Title V Operating Permit Application, Revisions and Renewal History

The most recent permit issued for this stationary source is operating permit number AQ0267TVP01. This operating permit includes all construction authorizations issued - April 28, 2003. All stationary source-specific requirements established in this previous permit are included in the new operating permit as described in Table M.

The owner or operator submitted an application on November 19, 2007. Additional information (emission calculations) was received on June 2, 2008. The application was amended on November 19, 2009

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1979. Review of the permit files for this stationary source, which includes the past inspection reports and compliance evaluations indicate a stationary source generally operating in compliance with its operating permit. Minor reporting violations noted in the latest Full Compliance Evaluation of June 8, 2010 are believed to have been corrected.

APPLICABLE REQUIREMENTS FROM PRE-CONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 C.F.R. Part 71.6 defines "applicable requirement" to include the terms and conditions of any pre-construction permit issued under rules approved in Alaska's State Implementation plan.

Alaska's State Implementation Plan included the following types of pre-construction permits:

- Permit-to-operate issued before January 18, 1997 (these permits cover both construction and operations);
- Construction Permits issued after January 17, 1997; and
- Minor permits issued after October 1, 2004.

Pre-construction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as Standard Conditions, generally applicable conditions and conditions that quote or paraphrase requirements in regulation.

These requirements include, but are not limited to, each source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of this operating permit issuance.

Table I, Table J, Table K, Table L, Table M and Table N below lists the requirements carried over from Construction Permit No. 267CPT01 and 9773-AC016, Minor Source Specific Permit Nos. AQ0267MSS02, AQ0267MSS03, and AQ0267MSS04, and Operating Permit No. AQ0267TVP01into Operating Permit No. AQ0267TVP02 to ensure compliance with the applicable requirements.

Table I - Comparison of Construction Permit No. 267CPT01 Conditions to Operating Permit No. AQ0267TVP02 Conditions[5]

Permit No. 267CPT01 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
3 and Exhibit A	Source inventory list	Section 1	Same requirements.
4 and Exhibit B	BACT Emission Limits	21 - 25	Same requirements.
5 and Exhibit C	Monitoring – Fuel gas meters for Turbines and Heaters. H_2S content of natural gas fuel used.	27, 30, and 20	Same requirements.

[5] This table does not include all standard and general conditions.

Table J - Comparison of Construction Permit No. 9773-AC016 Conditions to Operating Permit No. AQ0267TVP02 Conditions[6]

Permit No. 267CPT01 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
III.E, IX.B.1.e, IX.C.1.b, IX.C.1.c	The Permittee shall install, calibrate, and conduct applicable continuous monitoring system performance test listed in 40 CFR 60, Appendix B…	None.	Deleted. These conditions are not triggered and are no longer applicable. The two initial NOx emissions source tests results for EU ID 14 were both below 90%.
IV.A	Rated capacities of G-3203, H-3204, and H-102A.	Section 2	Changed rated capacities of G-3203, H-3204, and H-102A based on updated information received from CPAI.
IV.E	Monitor, record and report the hours of operation of sources in Condition IV.A	29	Same requirements. Different format.
V.A.3	Limits on fuel type and quality	30 and 20	No change.
V.B, VII.C.3, VI.B.3	Monitoring and recordkeeping – the Permittee shall conduct periodic fuel tests or obtain vendor certification of fuel sulfur content.	30 and 62.1	Deleted "or obtain vendor certification of the fuel sulfur content". Fuel vendors do not certify the sulfur content of their fuel.
V.C	Reporting – the Permittee shall report fuel sulfur test results or copies of vendor certification.	30.5 and 62.4	Deleted "or copies of vendor certification of the fuel sulfur content". Fuel vendors do not certify the sulfur content of their fuel.
VI.A	40 CFR 60, Subpart A – General Requirements	49 - 57	Included all applicable requirements of 40 CFR 60, Subpart A.
IX.B.2 and VI.B	40 CFR 60, Subpart GG	61 and 62	MR&R requirements are based on EPA granted custom fuel monitoring and applicable Subpart GG requirements.

[6] This table does not include all standard and general conditions.

Permit No. 267CPT01 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
VII.C.1 & C.2	Conduct a visible emission surveillance no less than once each calendar year and upon Department request conduct a particulate matter emission test or visible emission surveillance.	1	Replaced condition. The monitoring for gas-fired emission units for visible emissions is waived. The Department has found that natural gas-fired equipment inherently has negligible PM emissions. Monitoring shall consist of an annual compliance certification.
VII.C.4	Fuel consumption	27	Removed the obsolete requirement to submit a copy of the manufacturer's certification for each fuel meter within 90 days after installation.
IX.C.2 and VII.D	Reporting – Facility Operating Reporting Requirements	110	Replaced with Title V standard condition.
IX.A.1.a(1) & (2)	Install and operate EU IDs 14 and 17 with operational controls (CZ liner lean-head for EU ID 14, and low NOx burners for EU ID 17) as BACT.	31	Installation of CZ liners and low NOx Burners had been fulfilled; however, it is an ongoing requirement to operate with the CZ lean head liners for EU ID 14 and low NOx burners for EU ID 17.
IX.A.1.b(1) & (2) and IX.A.2	BACT Emission Limits	25	No change.
IX.B.1.d and III.D.1.a	NOx Monitoring	26.2	Added Method 7E for the process heater as method 20 is for Trubines.
IX.B.1. and IX.C.1	NOx Recordkeeping and Reporting for EU ID 14	26.2	Replaced with current recordkeeping and reporting requirements for NOx. The requirements in conditions IX.B.1.a & b and IX.C.1.a had already been fulfilled and are no longer applicable. The requirements in conditions IX.B.1.c & e and IX.C.1.b & c were not triggered and are therefore no longer applicable.

Table K - Comparison of Previous Minor Source Specific Permit No. AQ0267MSS02 Conditions to Operating Permit No. AQ0267TVP02 Conditions[7]

Permit No. AQ0267MSS02 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
3	Establish an ambient air boundary exclusion zone	37,	Same requirements.
4	Prohibit public access within the established ambient air boundary	38	Same requirements.
5	Limit NOx emissions from units C-2101A, C-2101B and C-2101C to no greater than 824 tons per 12 consecutive month period	42	Same requirements.
6	Off-permit changes	116	Revised condition slightly in order to match the off-permit reporting requirements of 40 C.F.R. 71.6(a)(12), which is the intent of the condition in permit AQ0267MSS02.
7	Document when construction and post-construction drilling commence and are completed	31	Same requirements.
8, 9, 10,	Limits on fuel combustion by drill rig operations	32 and 33	Same requirement, different format.
11, 12.3, 13.3	Monitor, record, and report daily and monthly fuel consumption	27	Same requirements, different format.
12	Limits on fuel consumption by well service heaters and engines and well frac unit engines	34	Same requirements, different format.
13	Limits on gas burned in portable flare	35	Same requirements
14	Limit heat input rating of production heaters to 184 MMBtu/hr	43	Same limit. Reporting requirement has not been carried forward as the one-time requirement has been met.
15	Limit fuel oil sulfur content to 0.150% by weight and field gas H_2S content to 275 ppmvd	30., 20	Same requirements, different format.
16	Limit combined SO_2 emission from drill rig heaters and boilers, production heaters, and portable flare to no greater than 35 tons per 12 consecutive month period.	44	Same requirement
17	Limit VOC emissions from the temporary crude oil storage tank to no greater than 34 tons per 12 consecutive month period. Record, estimate, and report emissions.	45	Same requirement
18, 18.1, 18.2, 18.3, 18.4	Visible emission limits and associated monitoring and reporting	7	Same requirements, different format.

[7] This table does not include all standard and general conditions.

Permit No. AQ0267MSS02 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
19, 19.1, 19.2, 19.3	Particulate matter emission limit and associated monitoring and reporting	10	Same requirements, different format. In Condition 4.9, added the exemption for nonroad engines and the 13,500 gallon trigger found in Condition 3.8 for visible emissions monitoring and reporting
20	Sulfur compound emission limit	19	Same requirements, different format
21, 22	Emission fees	81 and 82	Same requirement, different format
Section 4	Public access control plan for ambient air boundaries	(d)	Same requirements, different format
Section 5	Emission unit inventory	Table A	Generic emission units have been grouped into single emission unit identifiers

Table L - Comparison of Previous Minor Source Specific Permit No. AQ0267MSS03 Conditions to Operating Permit No. AQ0267TVP02 Conditions[8]

Permit No. AQ0267MSS03 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
1.2 and 1.3	Document installation of a replacement unit for EU IDs 64 and 65	36	Same requirement
3	Limit combined total fuel consumption for EU IDs 64 and 65 to no more than 148,000 gallons per 12 consecutive month period	28	Same requirement
4	Visible emission limits and associated monitoring and reporting	8	Same requirement
5	Particulate matter emissions limit	10	Same requirement
6	Sulfur compound emission limit	19	Same requirement
7	Maintain equipment according to manufacturer's or operator's maintenance procedures	83	Same requirement
8	Assessable potential to emit	81	Same requirement, revised to reflect current emissions

Table M – Comparison of Previous Minor Source Specific Permit No. AQ0267MSS04 Conditions to Operating Permit No. AQ0267TVP02 Conditions[9]

Permit No. AQ0267MSS04 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised

[8] This table does not include all standard and general conditions.
[9] This table does not include all standard and general conditions.

Permit No. AQ0267MSS04 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
2 & 3	rescinded and replaced Condition 3.3 of AQ0267MSS03	28.3	Same requirement

Table N - Comparison of Previous Operating Permit No. AQ0267TVP01 Conditions to Operating Permit No. AQ0267TVP02 Conditions[10]

Permit No. AQ0267TVP01 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
Table 1	Emission Unit Inventory	Table A	Update turbine P-EF52-B (EU ID 5). This turbine was up-rated from a TB5000 to a TB5400 unit as of September 2003. Notification of this up-rate was made - an off permit change sent to the Department September 5, 2003.
1.1	Assessable Emissions	81	Updated the CPF-1 assessable PTE.
5.1 b	Sulfur Compound Emissions, Arctic Diesel Fuel	19	Add conditions to detail actions required if certain sulfur content thresholds are exceeded. The proposed revisions allow CPAI to calculate the emissions based on the measured fuel sulfur content, and then take appropriate actions based on the results of the calculations.
NA	NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report and Summary Report Form	51	The July 8, 2004 amendment to NSPS Subpart GG clarifies that all turbines subject to the Subpart GG SO_2 standard are required to be included in periodic reports required under 40 C.F.R. 60.7(c) and (d). These new conditions outline the applicable requirements.
NA	NSPS Subpart A Performance (Source) Tests	53	40 C.F.R. 60.8 requirements were added to the permit to include the applicable provision to conduct source tests for NSPS-affected emission units, if requested by the Administrator.
26	NSPS Subpart GG NOx Standard Initial Periodic Testing and Substituting Test Data	61	Subpart GG periodic testing requirements have been revised to more accurately reflect the requirements as applicable to an existing facility.
27	NSPS Subpart GG Fuel Sulfur Monitoring and Reporting	62	Revise this condition to include the EPA-approved NSPS Subpart GG Fuel Sulfur Monitoring Requirements (as of July 8, 2004 revision) with revisions as allowed under EPA- approved October 2, 1997 alternate H_2S sampling method and the July 3, 1996 and April 6, 2004 custom fuel monitoring schedules.
28	NSPS Subpart J SO_2 Emission Standard	59	Revised condition so that it is consistent with the actual limitation expressed in the NSPS
NA	Emission Inventory Reporting		Emission inventory reporting condition added.

[10] This table does not include all standard and general conditions.

Permit No. AQ0267TVP01 Condition number	Description of Requirement	Permit No. AQ0267TVP02 Condition Number	How condition was revised
Table 4	Permit Shield Granted	Table F	Added permit shield for NSPS Subpart EEEE, YYYY, and ZZZZ with applicable explanations.

Table O lists emission units that have been removed from the regulated emission unit inventory.

Table O – Deleted Emission Unit Inventory

Tag No.	Emission Unit Description	Rating/ Size	Note	Permit Application
Engines				
P-1E02	GM Detroit Allison Freeze Protection Pump (1E)	240 hp	Removed from service and no longer located at Drill Site 1E	AQ0267TVP01, Rev 2
Storage Tanks				
T-175	Emulsion Breaker	595 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T-176	Triethylene Glycol (TEG)	595 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T-177	Ideal Plus (Lube Oil)	476 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T-178	Methanol	357 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T-1009	Waste Hydrocarbons (Recycle)	870 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T-1H01	Corrosion Inhibitor (Drill Site 1H)	870 bbls	Not subject to any enforceable requirements (as of 10/15/03, NSPS Subpart Kb no longer applies)	AQ0267TVP01, Rev 2
T1-P101A	Divert Tank (Crude Oil)	55,000 bbls	In a letter to CPAI dated August 18, 2006, EPA determined that these tanks fall within the definition of process tanks in 40 C.F.R. 60.1 11b (as amended 10/15/03), which are exempt from Subpart Kb.	AQ0267TVP01, Rev 2
T1-P101B	Divert Tank (Crude Oil)	55,000 bbls		AQ0267TVP01, Rev 2

NON-APPLICABLE REQUIREMENTS

Each permit is required to contain a discussion of all applicable requirements as set forth in 40 C.F.R. 71.6(a) adopted in 18 AAC 50.040(j). This section discusses Standard Conditions that have been removed from the permit or are not included for specific reasons.

NESHAP Subpart HH: Although the Permittee operates several triethylene glycol (TEG) dehydration units at the stationary source, the glycol reboilers use electric elements to heat the

glycol. There are no atmospheric vents in the glycol dehydration system, although the units do have pressure safety protection vents that are routed into the flare system.

Once the TEG is heated in the reboilers, the TEG off the bottom is pumped back around in the captive TEG system. The overhead from the reboilers is routed to an overhead condenser system, where the condensed water is pumped back into the CPF1 Produced Water system and the uncondensed material (the gas) is compressed into the plant fuel gas system. Further, the black oil exemption §63.760(e)(1) applies for the Subpart HH rule for area sources of HAP as well.

NESHAP Subpart DDDDD: Although the Permittee has several Industrial/Commercial/ Institutional Boilers and Process Heaters (EU IDs 15-28 and 37-50), 40 C.F.R. 63, Subpart DDDDD has been vacated and therefore is not currently applicable to any boilers or heaters at this stationary source. The requirements of this rule may become applicable at such point in time that the requirements of the rule are reinstated. A permit shield has not been granted for this regulation.

NSPS Subpart KKKK: Although the Permittee has several CI ICE (EU IDs 1 - 14), they are not currently applicable to the provisions of this Subpart as they have not been modified or reconstructed since the Subpart applicability date. A permit shield has not been granted for this regulation.

40 C.F.R. 64 CAM Rule: The requirements of 40 C.F.R. 64 applies to a pollutant-specific emissions unit at a major source if the unit satisfies **all** of the following criteria: (1) the emission unit is subject to an applicable emission limitation or standard; (2) the unit uses a control device to comply with any such applicability emission limitation or standard; and (3) the unit has potential pre-control device emissions of the applicable regulated air pollutant equal to or greater than the major source thresholds for the applicable regulated air pollutant.

> **Kuparuk Unit Topping Plant (KUTP):** The closed vent systems installed at KUTP (EU ID 57) uses a control device (EU IDs 30) to comply with 40 C.F.R. Subpart GGG/VV. The Department determined that the stationary source is exempt from CAM based on the exemption allowed under §64.2(b)(1)(vi) because EU ID 30 must comply with a permit condition that specifies a continuous compliance determination method, as defined in §64.1 and Condition 63.
>
> **Group III Emergency Liquid-Fired Equipment**: RICE engines subject to Subpart ZZZZ may require the use of a catalyst to reduce emissions of formaldehyde or Carbon monoxide. The Department determined that the stationary source would be exempt from the CAM rule since they are subject to a subpart promulgated after 1990.

Risk Management Plan (RMP): The Kuparuk Central Production Facility #1 is not subject to the general duty clause under the Clean Air Act Section 112(r)(1) (40 C.F.R. 68.10) because it does not have a threshold quantity of a regulated substance in a process as determined in §68.115.

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The state and Federal regulations for each condition are cited in Operating Permit No. AQ0267TVP02. The Statement of Basis provides the legal and factual basis for each term and condition as set forth in 40 C.F.R. 71.6(a)(1)(i).

Conditions 1 - 9, & 17 Visible Emissions Standard and MR&R

Legal Basis: These conditions ensure compliance with the applicable requirements in 18 AAC 50.050(a) and 18 AAC 50.055(a).

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs 1 - 50, 59, 60, 64, and 65 are fuel-burning equipment or industrial processes.
- 18 AAC 50.050(a) applies to the operation of incinerators. EU IDs 35 and 36 are incinerators.

U.S. EPA incorporated these standards as revised in 2002 into the State Implementation Plan effective September 13, 2007.

Factual basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 3 - 5, 9, and 17 of the permit.

These conditions have been adopted into regulation as Standard Conditions.

The Permittee must establish by actual visual observations that can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program that the stationary source is in continuous compliance with the State's emission standards for visible emissions and particulate matter.

These conditions detail a stepwise process for monitoring compliance with the State's visible emissions and particulate matter standards for liquid and gas fired emission units. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emission units either - maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Insignificant Emission Units:

For EU IDs 19 - 28, no visible emissions monitoring is required because these units are insignificant emission units based on actual emissions and permit Condition 17 limits either their hours of operation or fuel consumption. As long as the units do not exceed these limits, they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, 10/8/04. The Permittee must annually certify compliance under Condition 111 with the opacity standard.

Gas-Fired Fuel Burning Equipment:

Monitoring – The monitoring of gas-fired emission units for particulate matter is waived, i.e. no source testing will be required. The Department has found that natural gas-fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fuel-Fired Burning Equipment:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the operating report.

Dual Fuel-Fired Units:

- For EU ID(s) 4-9, 12, 13, and 15 as long as they operate only on gas, monitoring consists of an annual certification that only gaseous fuels were used in the equipment. When any of these emission units operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 17 is required for that emission unit in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 2, 10/8/04. When any of these units operates on a backup liquid fuel for less than 400 hours in a calendar year, monitoring for that unit consists of an annual certification of compliance with the opacity standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Flares:

Monitoring for flares (EU ID(s) 29 - 34) requires Method 9 observations of scheduled flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

Condition 9 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions, but actual field data demonstrating this assumption is not available. However, gas-fired flares have been shown to smoke when a control device, i.e. a knockout drum, flare scrubber, gas or steam assist, or vapor recovery system malfunctions. Thus, the Condition sets out a protocol to collect actual field data to determine compliance with the 20 percent opacity standard for flares.

Incinerator Visible Emissions MR&R

This visible emission standard applies to the operation of any incinerator in Alaska, including an air curtain incinerator.

The condition requires the Permittee to comply with the visible emission standard applicable to incinerators. The Permittee shall not cause or allow the affected incinerator to violate this standard.

The Permittee is required to monitor, record and report according to Condition 2. The monitoring requirements for incinerators are more stringent than for other fuel burning equipment since the fuels burnt are variable consisting of everything from domestic waste to medical waste. The Permittee is required to observe incinerators for smoke on days that they operate. If smoke is observed, the operator must perform a Method 9 reading to determine if the Particle Matter standard is being violated with 6 months of the initial occurrence.

Liquid Fuel Fired Drill Rig Heaters and Boilers:

Monitoring – Monitoring of liquid fuel fired drill rig heaters and boilers (EU ID 59) for visible emissions is not required because they are gas fired. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify compliance with the visible emissions standard.

Liquid Fuel Fired Well Injection Pump IC Engines at DS1R

Monitoring – During permit renewal review EU IDs 64 and 65 had not yet been installed and, therefore, Condition 8 of this permit carries forward the requirement of the Minor Permit No. AQ0267MSS03, Condition 4. The Permittee is required to either submit to the Department a copy of a guarantee provided by the manufacturer of EU IDs 64 and 65 that each unit will comply with the visible emission standard, or conduct a one-time visible emission source test within 30 days of startup.

Reporting – The Permittee must include a copy of the manufacturer guarantee or the visible emission observation to the Department in the next operating report.

Conditions 10 - 17, Particulate Matter (PM) Standard

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.055(b). This requirement applies to operation of all industrial processes and fuel-burning equipment in Alaska.

- EU IDs 1 - 50, 59, 60, 64, and 65 are fuel-burning equipment.

These PM standards also apply because they are contained in the Federally approved SIP effective September 13, 2007.

Factual basis: Condition 10 prohibits emissions in excess of the state PM (also called grain loading) standard applicable to fuel-burning equipment and industrial processes. The Permittee shall not cause or allow fuel-burning equipment nor industrial processes to violate this standard.

MR&R requirements are listed in Conditions 11 - 12, 15 - 17 of the permit.

The Permittee must establish by actual visual observations which can be supplemented by other means, such as a defined Operation and Maintenance Program, which the emission unit is in continuous compliance with the State's emission standards for particulate matter.

Gas-Fired:

Monitoring - The monitoring of gas-fired emission units is waived,i.e. no source testing will be required. The Department has found that natural gas-fired equipment inherently has negligible PM emissions. However, the Department can request a source test for PM emissions from any smoking.

Reporting – The Permittee must state in each operating report whether only gaseous fuels were used in the equipment during the period covered by the report.

Liquid Fired:

Monitoring – The Permittee is required to conduct PM source testing if threshold values for opacity are exceeded.

Recordkeeping - The Permittee is required to record the results of PM source tests.

Reporting - The Permittee is required to report: 1) incidents when emissions in excess of the opacity threshold values have been observed, 2) and results of PM source tests. The Permittee is required to include copies of the results of all visible emission observations with the operating report

Dual Fuel-Fired Units:

For EU IDs 4 - 9, 12, 13, and 15, as long as they operate only on gas, monitoring consists of certification statement in the operating report to indicate whether only gaseous fuels were used in the equipment during the period covered by the report. When any of these emission units operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition 17is required for that emission unit in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 2, 10/8/04. When any of these emission units operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that emission unit consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

Insignificant Emission Units:

For EU IDs 19 - 28, no monitoring is required because are insignificant emission units based on actual emissions and have permit Condition 17 that limits either their hours of operation or fuel consumption. As long as the units do not exceed these limits they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, 10/8/04. The Permittee must annually certify compliance under Condition 111 with the particulate matter standard.

Flares:

Monitoring of gas-fired flares for particulate matter is waived, i.e. no source testing will be required, because of the difficulty and questionable results these tests produce when applied to flares. The Department has recognized this fact by incorporating the waiver in the State Implementation Plan adopted in November 1984, which has not been Federally approved. No recordkeeping or reporting is required.

Incinerator Particulate Matter Emissions and MR&R

Legal Basis: Condition 14 ensures compliance with the incinerator particulate matter standards. The particulate matter emission standard for EU ID 35 as listed in Condition 14

for this permit applies to the operation of the incinerator based on its rated capacity. U.S. EPA incorporated these standards as revised in 2002 into the State Implementation Plan effective September 13, 2007.

Factual Basis: The condition requires the Permittee to comply with the particulate matter emission standards applicable to incinerators based upon rated capacity. The Permittee shall not cause or allow the affected incinerator to violate this standard.

Under 18 AAC 50.050(b), EU ID 36 is not subject to particulate matter standard because the incinerator has a rated capacity of less than 1000 pounds per hour. However, under EPA PSD-X82-01 (revised October 7, 1997), a BACT limit of 12 tpy and 0.1 gr/dscf at 12% CO was established for particulate matter emissions from EU ID 36. (See the SOB factual basis for Condition 2).

The Permittee is required to monitor, record and report according to Condition 21. Particulate matter emission for incinerators are more stringent than the state standard. Therefore, the trigger requiring additional testing to determine emissions is more restrictive than state standard visual emission monitoring.

Liquid Fuel Fired Drill Rig Heaters and Boilers:

Monitoring – Monitoring of liquid fuel fired drill rig heaters and boilers (EU ID 59) for particulate matter is not required unless an exceedance of the visual emission standard occurs. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify compliance with the particulate matter standard.

Liquid Fuel Fired Well Injection Pump IC Engines at DS1R

Monitoring – Monitoring of liquid fuel fired well injection pump engines at DS1R (EU IDs 64 and 65) for particulate matter is not required because they are gas fired. However, the Department can request a source test for PM emissions from any smoking equipment.

Reporting – The Permittee must annually certify compliance with the particulate matter standard.

Condition 19, Sulfur Compound Emissions

Legal Basis: This condition requires the Permittee to comply with the sulfur compound emission standard for all fuel-burning equipment and industrial processes in the State of Alaska.

- EU IDs 1 - 34, 37 - 50, 59, 60, 64, and 65 are fuel-burning equipment and industrial processes.

These sulfur compound standards also apply because they are contained in the Federally approved SIP effective September 13, 2007.

Factual basis: The condition requires the Permittee to comply with the sulfur compound emission standard applicable to fuel-burning equipment. The Permittee may not cause or allow the affected equipment to violate this standard.

Sulfur dioxide comes from the sulfur in the fuel (e.g. coal, natural gas, fuel oils).

Liquid Fuels: For oil fired fuel burning equipment, the MR&R conditions are Standard Permit Conditions XI and XII adopted into regulation pursuant to AS 46.14.010(e).

Beyond as noted above, the Department has previously determined that the standard conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source-specific conditions would better meet the requirements. Therefore, the Department concludes that the standard conditions as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Gaseous Fuels: Fuel sulfur testing will verify compliance with SO_2 emission standard. Mercaptans are a concentrated thiol molecule (e.g. ethanethiol) composed of hydrogen and sulfur used to detect the presence of natural gas by its strong odor as in t-butyl-mercaptan. Basically, it is the mercaptan that allows the presence of gas to be detected by its odor, so it is naturally used as a leak detectant. However, by that same token it significantly raises the sulfur content of the natural gas and should be accounted for in determining compliance with the State sulfur compound emissions standard. The Department has therefore revised the basic MR&R requirements to monitor the total sulfur quantity, instead of H_2S concentration, in the natural gas fuel due to the presence of mercaptans in the gas supply which raise the sulfur concentration.

Condition 20.7.b requires the Permittee to conduct a semiannual analysis for the fuel gas sulfur content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377, or a listed method approved in 18 AAC 50.035(b)-(c) and 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

The Permittee is required to report as State excess emissions whenever the fuel combusted causes sulfur compound emissions to exceed the standards in this condition. The Permittee is required to include copies of the records of semiannual statement from the fuel supplier or the sulfur content analysis with the stationary source operating report.

Conditions 21 - 26, Pre-Construction Permit Requirements (BACT Emission Limits)

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007.

Factual Basis: On December 29, 1981, EPA Region 10 issued PSD permit number PSDX82-01 to ARCO Alaska, Inc. for construction of new equipment at four Kuparuk facilities. EPA twice administratively approved equipment lists under this PSD permit, once on March 23, 1983, and a second time on June 13, 1984. EPA on October 7, 1997 and October 27, 2003 issued revisions to the EPA PSD permit. The primary revisions include apportionment of field-wide ton per year limits to stationary source-specific equipment group

limits, and updating emission limits based solely on AP-42 factors to the values in the edition of AP-42 that were current in 1997.

As part of the EPA process, ARCO Alaska demonstrated to Region 10 that on a ton per year basis an overall decrease in allowable emissions would occur under the permit revision. The only exception was an increase in allowable SO_2 emissions due to subsequent permitting by the Department that raised the SO_2 BACT limit originally established by EPA.

The majority of these changes reflect the revised emission limits granted by EPA on October 7, 1997 and October 27, 2003. The EPA revisions established ton per year emission limitations on a group basis for turbines and heaters, and one incinerator. For turbines and one incinerator, ton per year emission limits apply for NOx, CO, SO_2, PM, and VOC. Ton per year emissions limits for heaters apply to the same pollutants except there is no limit for VOCs. For NOx and CO in turbines and heaters, EPA established BACT emission limits in terms of tons per year as well as other terms (e.g. ppmv and lb/MMBtu). Emission limits for SO_2, PM, and VOC were established by EPA only in terms of tons per year. An opacity limit of 10% was also established for certain turbines and one incinerator.

Compliance with the short-term BACT NOx emission limits for turbines EU IDs 1 - 3 and 8 - 13; and EU IDs 16, 37 - 41, 43 - 45, and 48 - 50, reflect the MR&R NO_x requirements for NSPS Subpart GG in Conditions 61.2 - 61.4. While only EU IDs 1-3 and 10-13 are subject to the NSPS Subpart GG - NOx emission limit, the same MR&R conditions (Conditions 61.2 - 61.4) are applied to the remaining turbines based on the periodic MR&R requirements of 40 C.F.R. Part 71. Periodic CO testing and related record keeping and reporting require routinely testing on no less than a 5-year cycle. If the most recent performance test on a turbine showed CO emissions at less than or equal to 90 percent of the limit shown in Condition 21, then periodic monitoring is required at the first applicable of three criteria: either within 5 years of the last performance test, or within a year of the issue date of the permit. If the most recent performance test showed operations at greater than 90 percent of the emissions listed in Condition 21, then periodic monitoring source testing is required every year until two consecutive tests show emissions at less than or equal to 90 percent of the limit.

EU IDs 14 and 17 were permitted under construction permit No. 9773-AC016 on February 13, 1998 and were installed in 1999. The NOx and SO_2 BACT limits for these emission units were derived from the PSD review conducted in 1998 as part of the construction permit requirement. The verification period for BACT is based on the source test results and the percent within the limit. AQ0267TVP01 shortened this requirement to every two years. The renewal permit again allows the Permittee the original option. Requiring the Permittee to test either once every 5 years or every two years. The construction permit also included a requirement to install a CEMs on the exhaust stack for EU ID14. This requirement was not carried forward in AQ0267TVP01 and now appears in the renewal permit. The intent of the CEMs is to assure compliance with the short term NO_x standard found in Table E

The EPA revisions for Permit No. PSD-X82-01 and the BACT emissions limits from Construction Permit No. 9773-AC016 have been incorporated into Construction Permit No. 267CPT01 and this Title V Operating Permit. For affected turbines and incinerators, the Permittee is required to calculate and report emission levels for NOx, SO_2, CO, PM, and VOC. For affected heaters, the Permittee is required to calculate and report emission levels for NOx, SO_2, CO and PM.

Conditions 27 - 47, Operating and Construction Permit Conditions Carried Forward

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007.

Factual Basis: The old Operating Permit No. 9373-AA004, Construction Permit No. 9773-AC016, and Minor Stationary Source Permit No. AQ0267MSS02 contain conditions that must be carried forward to this Title V permit. These conditions contain requirements to monitor fuel consumption and operating hours for fuel-fired equipment so that emission levels may be calculated, and to monitor the H_2S concentration for the gas-fired equipment and sulfur content in the liquid fuel for certain emission units, to demonstrate compliance with the limits in Conditions 30 and 20 In addition, these conditions include limits on fuel consumption for drill rig and associated equipment, and the portable flare at DS1E and DS1J.

Some of these conditions were applied to the stationary source to verify compliance with BACT limits; other conditions were applied to verify compliance with ambient air quality increments or to avoid classification as a PSD-major modification at DS1E and DS1J in the case of certain limits established under permit no. AQ0267MSS02. Conditions, 32, 33.1.d, 33.1.e, 34.1.a, and 34.1.b are included to protect Ambient Air Quality. Conditions 33.1.a, 33.1.b, 33.1.c, 35.1.a, and 35.1.b are included to avoid classification as a PSD major source.

Condition 36, Installation of Replacement Units at DS1R

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007.

Factual Basis: This condition applies to the well injection pump engines (EU IDs 64 and 65) in operation at DS1R. This condition requires the Permittee to notify the Department whenever a replacement unit is to be installed in place of EU IDs 64 and 65, and to include documentation of the replacement unit with the notification.

Condition 37 - 39, DS1E/DS1J Exclusion Zones

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007

Factual Basis: These conditions have been carried forward from Minor Stationary Source Permit AQ0267MSS02. These conditions describe the ambient air quality boundaries that must be established around DS1E and DS1J and the steps taken to enforce the boundaries.

Condition 40, ORL Emergency Equipment Operating Hours

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee has requested this condition as an owner requested limit.

Factual Basis: This condition requires MR&R to verify compliance with the 200-hour limit for non-emergency operation. The Permittee requested this limit so that the emergency equipment will be considered insignificant emission units and thus avoid monitoring for compliance with opacity and particulate matter standards. To remain in the designation of emergency under the NESHAP Subpart ZZZZ, the engines must not exceed non-emergency operations over 100 hours. There is no limit on emergency operation. However, if the 100 hour limit is exceeded the Permittee must comply with the work practices and emission limitations under Subpart ZZZZ. The Permittee is required to monitor the rolling 12-month operational hours.

Condition 41, ORL to Limit Firing Rate of EU ID 16

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally

approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee has requested this condition as an owner requested limit.

Factual Basis: The previous operating permit No. 9373-AA004 established a requirement for Process Heaters rated at greater than 43 MMBtu/hr. The requirement is for the Permittee to install, maintain, and operate in good working order a Continuous Emission Monitoring System (CEMS) for recording and monitoring flue gas content of CO or O_2 and shall be calibrated and operated according to 40 C.F.R. Part 60, Appendix B. As an alternative to CEMS, the Permittee may conduct monitoring of the process heater not less than once per month. In CPF-1, one process heater (EU ID 16) has a heat input rating of 44.4 MMBtu/hr.

In order to avoid such requirement, the Permittee proposed an owner-requested limit for the emission unit to decrease the heat input firing rate to 42.9 MMBtu/hr by maintaining a daily average of 0.039 MMscf/hr based on a fuel LHV of 1,100 MMBtu/MMscf. If CPAI elects to remove this owner-requested limit, the requirement for process heaters greater than 43 MMBtu/hr would still apply. The Permittee is required to monitor the daily operating time and fuel consumption using the emission unit's fuel monitoring device. The maximum daily average fuel consumption rate (MMscf/hr) for each month is report in each operating report.

Conditions 42 - 45, ORLs to Avoid Project Classification as a PSD Major Modification

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee has requested these conditions as owner requested limits.

Factual Basis: Conditions 42 - 45 require MR&R to verify compliance with the NOx, SO_2, and VOC emission limits established to avoid a PSD modification for the West Sak Development Project drilling, construction, and production activities at DS1E and DS1J. Condition 43 does not include MR&R because the total duty rating is less than the imposed limit. Condition 28 includes MR&R to verify compliance with the fuel consumption limit established for the well injection pump engines at DS1R to avoid a PSD modification for NOx. The Permittee must monitor the total fuel usage of EU IDs 64 and 65 to determine the emissions of NOx, SO_2, and VOC.

Conditions 46 and 47, ORL for Incinerators to avoid classification as "HAPs major"

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance

with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. Implementation of these operating limits will ensure that the stationary source's potential to emit any single Hazardous Air Pollutant will remain below 10 tpy or 25 tpy in the aggregate of two or more HAPs.

Factual Basis: The Permittee has requested that the Department limit the combined solid -put of EU IDs 35 and 36 to avoid classification as "HAPs major" under 18 AAC 50.990(45). The stationary source has potential emissions greater than 25 tpy of HAPs without this limit. The Permittee is required to keep daily records of the solid waste -put and is restrict to a rolling total of under 5,500 tons on an annual basis.

Conditions 48, Insignificant Emission Units

Legal Basis: The Permittee is required to meet state emission standards set out in 18 AAC 50.055 for all industrial processes fuel-burning equipment, and incinerators regardless of size.

Factual basis: The conditions re-iterate the emission standards and require compliance for insignificant emission units. The Permittee may not cause or allow their equipment to violate these standards. Insignificant emission units are not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance.

The Department finds that the insignificant units at this stationary source do not require specific monitoring, recordkeeping and reporting to ensure compliance under these conditions.

Condition 48.4 requires certification that the units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. EU IDs 19 - 28, are insignificant EUs based on actual emissions and have permit conditions that limit their hours of operation. For EU IDs 19 - 28, as long as they do not exceed the limits of their hours of operation as stated in Conditions 17 and 40, they are considered insignificant units and no monitoring is required in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, 10/8/04.

Conditions 49–57, NSPS Subpart A Requirements

Legal Basis The Permittee must comply with those New Source Performance Standard (NSPS) provisions incorporated by reference the NSPS effective July 1, 2007, for specific industrial activities, as listed in 18 AAC 50.040[11].

Most (with the exception of some storage tanks) affected facilities subject to an NSPS are subject to Subpart A. At this stationary source, NSPS Subpart A applies to all emission units subject to NSPS Subparts Dc, Ka, GG, J, and GGG/VV. EU IDs 1 - 14 are subject to NSPS Subpart GG. EU IDs 42, 46, and 47 are subject to NSPS Subpart Dc. EU IDs 51 - 55 are subject to NSPS Subpart Ka. EU IDs 16 and 30 are subject to Subpart J. EU ID 57 is subject to Subparts GGG/VV.

[11] EPA has not delegated to the Department the authority to administer the NSPS program as of the issue date of this permit.

Condition 49.1 - 49.3 - The Permittee has already complied with the notification requirements in 40 C.F.R. 60.7 (a)(1) - (4) for EU IDs 1 - 14, 16, 30, 42, 46, 47, 51 - 55, and 57. However, the Permittee is still subject to these requirements in the event of a new NSPS affected facility or in the event of a modification or reconstruction of an existing facility into an affected facility.

Condition 49.4 - The requirements to notify the EPA and the Department of any proposed replacement of an affected facility (40 C.F.R. 60.15) applies to EU IDs 1 - 14, 16, 30, 42, 46, 47, 51 - 55, and 57 in the event of a proposed replacement of these affected facilities.

Condition 49 - Start-up, shutdown, or malfunction record maintenance requirements in 40 C.F.R. 60.7(b) are applicable to all NSPS affected facilities subject to Subpart A.

Conditions 51 and 52- NSPS excess emission reporting requirements and summary report form in 40 C.F.R. 60.7(c) & (d) are applicable to EU IDs 1 - 14, 16, and 30 because EU IDs 1 - 14 are required to conduct period fuel sulfur monitoring, and EU IDs 16 and 30 are equipped with an NSPS required continuous monitoring system. The Department has included in Attachment A of the statement of basis a copy of the federal EEMSP summary report form for use by the Permittee. The Permittee obtained EPA approval for annual instead of semi-annual fuel sulfur reporting in Custom Fuel Monitoring Schedules dated April 5, 2000 (for fuel gas). Therefore, the EEMSP reports that address fuel sulfur monitoring for Subpart GG-affected turbines are required to be submitted annually for these units instead of semi-annually.

Recordkeeping requirements in 40 C.F.R. 60.7(f) are applicable to all NSPS affected facilities. (Satisfied by Condition 105)

Condition 53 - The Permittee has already complied with the initial performance test requirements in 40 C.F.R. 60.8 for EU IDs 1 - 14. However, additional performance test requirements may be applicable to the affected facilities if the Permittee is required to conduct performance tests under the periodic monitoring requirements in Condition 61.2.

Condition 54 - Good air pollution control practices in 40 C.F.R. 60.11 are applicable to all NSPS affected facilities subject to Subpart A (EU IDs 1 - 14, 16, 30, 31, 35, 36, 42, 46, 47, 51 - 55, and 57).

Condition 55 - states that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs 1 - 14, 16, 30, 31, 42, 46, 47, and 57.

Condition 56 - Concealment of emissions prohibitions in 40 C.F. R. 60.12 are applicable to EU IDs 1 - 14, 42, 46, and 47.

Condition 57 - General Control Device Requirements in 40 C.F.R. 60.18 are applicable to EU IDs 30 and 31 since they are used as control devices for EU ID 57 and to meet the NSPS Subpart VV requirements. As control devices they are required to meet the operational and performance standards of 40 C.F.R. 60.18. Monitoring requirements were added to this condition to verify compliance. These monitoring requirements were taken from the standard permit conditions develop by the State of Texas for flares based on long term studies of flare performance and air quality (http://www.tceq.state.tx.us/permitting/air/guidance/newsourcereview/flares/nsr_fac_flares.html).

Factual Basis: Subpart A contains the general requirements applicable to all affected facilities (sources) subject to NSPS. In general, the intent of NSPS is to provide technology-based emission control standards for new, modified and reconstructed affected facilities.

Condition 58 - 58, NSPS Subpart Dc Requirements

Legal Basis: Since the Permittee identified affected facilities at this stationary source, these conditions require the Permittee to comply with NSPS Subpart Dc. The NSPS applies steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989 and have maximum design heat input capacities of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). EU IDs 42, 46 and 47 were constructed on 8/15/05, and 12/1/04, respectively, and have maximum design heat input capacities of 30, 36.8, and 36.8 MMBtu/hr, respectively; and are therefore subject to Subpart Dc.

Factual Basis: EU IDs 42, 46 and 47 are only subject to the recordkeeping and reporting provisions of 40 C.F.R. 60.48c(g) and (i). The Permittee must keep records of the amount of fuel used by these units. The record retention schedule in 40 C.F.R. 60.48c(a) is satisfied by Condition 105.

Condition 59, NSPS Subpart J Requirements

Legal Basis: NSPS Subpart J applies to fluid catalytic cracking units catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plans of 20 long tons per day or less, at a petroleum refinery. The Kuparuk Unit Topping Plant (KUTP, EU ID 57) of Central Production Facility #1 is a petroleum refinery and EU IDs 16 and 30 are "fuel gas combustion devices" as defined by 40 C.F.R. 60, Subpart J, and were constructed after June 11, 1973. Therefore, these emission units are subject to certain provisions of Subpart J (40 C.F.R. 60.104(a)(1), 40 C.F.R. 60.105(e)(3)(ii), 40 C.F.R. 60.105(a)(4), and 40 C.F.R. 60.13).

Factual Basis: This condition incorporates the Subpart J sulfur oxides (as H_2S) emission standard. The Permittee may not cause or allow EU IDs 16 or 30 to violate this standard. It is noted that the emission standard was expressed as an equivalent converted value of 162 ppmv, based on a temperature of 59°F, in Condition 34 of AQ0267TVP01; however, the emission standard is specified in this permit AQ0267TVP02 in units of milligram per dry standard cubic meter (i.e., 230 mg/dscf), which is consistent with the NSPS. Compliance monitoring for this requirement includes maintenance and operation of two continuous emissions monitoring systems (CEMS) in good working order.

Condition 60, NSPS Subpart Ka Requirements

Legal Basis: NSPS Subpart Ka applies to storage vessels for petroleum liquids with storage capacity > 40,000 gallons that were built or modified after May 18, 1978 and prior to July 23, 1984. EU IDs 51 - 55 were constructed during this time frame. These affected facilities have storage capacities > 40,000 gallons and store petroleum liquids.

Factual Basis: If the true vapor pressure of the liquid stored within a tank is maintained below 1.0 psia, then there are no operational monitoring requirements. If the true vapor pressure is maintained below 1.5 psia, then there are no applicable equipment standards. If these conditions are met, then there are no applicable requirements other than those found in

40 C.F.R. 60, Subpart A. Otherwise, MR&R for Subpart Ka tanks are as provided in this condition.

Conditions 61 - 62, NSPS Subpart GG Requirements

Legal Basis: This condition prohibits the Permittee from exceeding emission standards set out in Subpart GG. NSPS Subpart GG applies to stationary gas turbines with a heat input at peak load (maximum load at 60 percent relative humidity, 59 degrees F, and 14.7 psi) equal to or greater than 10.7 gigajoules per hour (10 MMBtu/hr), based on the lower heating value of the fuel fired and constructed, modified, or reconstructed after October 3, 1977.

Factual Basis: These conditions incorporate NSPS Subpart GG NO_X emission and sulfur compound limits. The Permittee may not allow equipment to violate these standards.

NO_X Standard: For a turbine subject to 40 C.F.R. 60.332, the NO_X standard is determined by the following equation:

$$STD_{NOX} = 0.015(14.4/Y) + F$$

where,

STD_{NOX} = allowable NO_X emissions (percent by volume at 15 percent oxygen and on a dry basis)

Y = manufacturer's maximum rated heat input (kJ/W-hr), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the affected stationary source. The value of Y shall not exceed 14.4 kJ/W-hr

F = NO_X emissions allowance for fuel bound nitrogen, percent by volume, assumed to be zero for distillate fuel oil and gaseous fuels.

Based on the manufacturer's heat rating at manufacturer's rated peak load, and assuming fuel bound nitrogen of zero, the NO_X standard is 161 ppmvd for EU IDs 1 - 3 and 162 ppmvd for EU IDs 10 - 13.

SO_2 Standard: The Permittee is required to comply with one of the following sulfur requirements for EU IDs 1 - 14 (turbines):

(1) do not cause or allow SO_2 emission in excess of 0.015 percent by volume, at 15 percent O_2 and on a dry basis (150 ppmv), or

(2) do not cause or allow the sulfur content for the fuel burned to exceed 0.8 percent by weight.

Exemptions: Gas turbines exempted from NSPS Subpart GG emission standards are as provided in 40 C.F.R. 60.332(e) – (l). EU IDs 12 and 13 are dual-fired emission units and are exempt from this standard when fired on emergency liquid fuel. EU IDs 4 - 9 are exempt from the NSPS Subpart GG NOx standard of 40 C.F.R. 60.332(a) because they meet the exemption criteria of 40 C.F.R. 60.332(e). EU ID 14 is exempt from the NSPS Subpart GG NOx standard of 40 C.F.R. 60.332(a) because its rated base load at ISO conditions exceeds 30 MW (ref. 40 C.F.R. 60.332(d)).

Condition 61, NO_X Monitoring, Recordkeeping, and Reporting

Legal Basis: Periodic monitoring is included in Condition 61.2 for all turbines that normally operate for greater than 400 hours in a 12 month period. This additional monitoring is necessary to ensure that turbine emissions comply with the NSPS NO_X standard and is required under 40 C.F.R. 71.6(a)(3) as the subpart does not contain MR&R sufficient for an operating permit.

Factual basis: The Department does not have enough information to make categorical determinations that certain types of turbines, or turbines with emission test results below a certain percentage of the Subpart GG NOx emission limit will inherently comply with the Subpart GG limit at all times and will never need additional testing. After a sufficient body of NOx data is gathered under monitoring conditions for compliance with 40 C.F.R. 60, Subpart GG, the Department may find that it has enough information to make such categorical determinations. In that event, the Department would revise the NOx monitoring conditions. The Department may determine that to assure compliance it is necessary to retain or increase the current monitoring frequency.

These conditions do not include the initial NSPS performance test requirements as the Subpart A conditions cover these requirements. If an existing or new turbine under this permit is still subject to the performance test requirement of 40 C.F.R. 60.8 is covered under the Subpart A related conditions.

The intent of these conditions is that turbines or groups of turbines be routinely tested on no less than a 5-year cycle. If the most recent performance test on a turbine showed NOx emissions at less than or equal to 90% of the limit shown in Condition 61, then periodic monitoring is required at the first applicable of three criteria: either within 5 years of the last performance test, or within a year of the issue date of the permit, or within a year of exceeding 400 hours of operation within a 12-month period. If the most recent performance test showed operations at greater than 90% of the emissions listed in Condition 61, then periodic monitoring source testing is required every year until two consecutive tests show emissions at less than or equal to 90% of the limit.

The condition does not state how load must be measured. For some turbines it may be possible to directly measure load as either mechanical or electrical output. For others, it may be necessary to calculate load indirectly based on measurements of other parameters. The Department is not attempting to dictate what method is most appropriate - the permit condition, but should evaluate the adequacy of methods of calculating load based on the load monitoring proposed by the Permittee.

Subpart GG defines "emergency gas turbine[12]" and exempts turbines meeting that definition from the GG emission standards. Some turbines may be operated as standby equipment but not meet the definition of emergency turbine, so the Department has added a Method 20 monitoring threshold of 400 hours per 12-month period. For turbines expected to operate less than 400 hours the Department has also added recordkeeping for hours of operation. The Department does not intend to require the Permittee to operate a turbine solely for the purpose of testing.

[12] *Emergency Gas Turbine* means any stationary gas turbine that operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency situation, as defined in 40 C.F.R. 60.331(e), effective 7/1/03.

The condition requires testing at a range of loads, consistent with the performance test requirements in Subpart GG, that is, test at 30, 50, 75, and 100 percent load. If testing at these four loads is not reasonable, the condition allows the Permittee to propose to the Department what test loads will be reasonable and adequate, and the Department will have the responsibility to make a finding on that proposal. If EPA has already approved alternative test loads for the initial performance test the Department would allow those test loads if the information that went into that decision were still representative of the turbine operation.

In Condition 61.2.b(iii)(A)(3), the Department considers "fuel type" to mean, for liquid fuels a type of fuel as described in an ASTM or similar fuel specification.

Load measurements or load calculations from load surrogate measurements are for one-hour periods. The intent is to match the averaging period for the test method. Method 20 identifies a number of traverse points that vary with the size of the stack. From these points the tester is to choose at least 8 points for NOx measurements. The time at each point is to be at least one minute plus the average response time of the instrument. The recorded value is the average steady state response. Presumably, the steady state response would exclude some or all of the response time of the instrument. Three runs are to be done at each test load.

The three runs would represent 24 minutes of measurement time or more. A one-hour average load is therefore a reasonable approximation of a load period corresponding to the test method.

Condition 62, SO_2 Monitoring, Recordkeeping, and Reporting

Legal Basis: This condition requires the Permittee to comply with NSPS Subpart GG SO_2 or fuel quality monitoring, record keeping and reporting.

Factual Basis*:* Monitoring, recordkeeping, and reporting requirements for this condition are described in NSPS Subpart GG and have been referenced here. No additional monitoring outside of the Subpart GG requirements is necessary to ensure compliance with the NSPS SO_2 standard.

Monitoring: Condition 62.1 incorporates NSPS Subpart GG fuel sulfur monitoring requirements.

Recordkeeping: The Permittee is required to maintain records of all sulfur monitoring data required by NSPS Subpart GG for five years as set out in 40 C.F.R 60.7(f). This requirement is stated in Condition 105.

Reporting: NSPS Subpart GG SO_2 standard reporting requirements are incorporated in the permit in Condition 62.3. For the purpose of the EEMSP reports and summary report required under 40 C.F.R. 60.7(c), report daily periods during which the sulfur content of the fuel being fired in the turbine exceeds 0.8 percent. In Condition 62.3 the Department requests that a summary report of the results from the monitoring requirements in Condition 62.1 be included in the Operating Report required under Condition 110.

Condition - 63, NSPS Subpart GGG/VV Requirements

Legal Basis: This condition applies to the group of all the equipment, as defined in 40 C.F.R. 60.591 Subpart GGG, within a process unit (in this case, EU ID 57 [KUTP]) and that commenced construction or modification after January 4, 1983. The equipment in KUTP

subject to this condition include each valve, pump, pressure relief device, sampling connection system, open-ended valve or line, and flange or other connector in VOC service.

Factual Basis: These conditions require the Permittee to comply with the applicable requirements of Subparts GGG and VV - Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries and in the Synthetic Chemicals Manufacturing Industry. The MR&R are as provided in Subparts GGG/VV. EU ID 30 is used as control device in meeting these requirements.

Condition 64, ORL for Incinerators for Exemption from 40 C.F.R. 60, Subpart O

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT) limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee requested this condition as an owner requested limit.

Implementation of this operating limit will ensure that the incinerators at CPF-1, EU IDs 35 and 36, each combust less than 10 percent sewage sludge.

Factual Basis: The Permittee requested that the Department limit the sewage sludge burned in each of EU IDs 35 and 36 to less than 10 percent sewage sludge on a dry basis to avoid classification as a Sewage Treatment Plant under 40 C.F.R. 60, Subpart O and 18 AAC 50.040(2)(Q). The Permittee is required to sample on a regular basis the dry percentage of

Condition 65 ORL for Incinerators for exemption from 40 C.F.R. 62, Subpart HHH

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee has requested this condition as an owner requested limit.

Factual Basis: The Permittee has requested that the Department limit each incinerator (EU IDs 35 and 36) to combust a fuel feed stream, the weight of which is comprised of ten percent or less hospital waste and medical/infectious waste, aggregated. Compliance with this requirement allows each incinerator to meet the definition of a co-fired combustor in 40 C.F.R. 60.14490, which is exempt from the requirements of 40 C.F.R. 62, Subpart HHH.

Condition 66 ORL for Incinerators for Exemption from 40 C.F.R. 62, Subpart III

Legal Basis: The Permittee is required to comply with all effective stationary source-specific requirements that were carried forward from previous EPA PSD permits, SIP approved permits to operate issued before January 18, 1997, SIP approved construction permit(s), SIP approved minor permits, operating permits issued between January 18, 1997 and September 30, 2004, or owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. State pre-construction requirements apply because they were originally developed - case-by-case action under a Federally approved SIP or approved Operating Permit program. EPA approved the latest SIP effective September 13, 2007. The Permittee requested this condition as an owner requested limit for the incinerators, which commenced construction on or before November 30, 1999 and meet the definition of existing Commercial/Industrial Solid Waste Incinerators.

Factual Basis: The purpose of the owner-requested limit and the record keeping required under 40 C.F.R. 62.14525(c)(2)(ii) is to confirm that the incinerators burn greater than 30 percent municipal solid waste or refuse-derived fuel and thereby satisfy the exemption criterion of 40 C.F.R. 62, Subpart III as stated in 40 C.F.R. 62.14525(c)(2).

Municipal Solid Waste (MSW) includes household, commercial/retail, and/or institutional waste.

Household waste includes material discarded by residential dwellings, hotels, motels, and other similar permanent or temporary housing.

Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities.

Institutional waste includes materials discarded by schools, by hospitals (nonmedical), by nonmanufacturing activities at prisons and governmental facilities, and other similar establishments or facilities.

Condition 67, NESHAPS Rule Applicability

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAPS, and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to notify the Department and Administrator if the stationary source becomes an affected facility and to keep and make available to the Department copies of the major stationary source determination.

Condition 68, NESHAP Subpart E National Emission Standard for Mercury

Legal Basis: NESHAP Subpart E applies to stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge. EU IDs 35 and 36 incinerate the stationary source's wastewater treatment plant sludge.

Factual Basis: The condition requires the Permittee to comply with the mercury emission standard provided in 40 C.F.R. 61.52(b) for sludge incinerators. The Permittee obtained an EPA approved waiver for stack and sludge mercury sampling and monitoring on October 16, 1997 from Bonnie The with Region X. Monitoring for this requirement consists of an annual compliance certification.

Conditions 69 - 76, NESHAP Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAPs requirements effective July 16, 2007, for specific industrial activities, as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions.

Factual Basis: NESHAP Subpart ZZZZ applies to any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE units being tested at a stationary RICE test cell/stand. Kuparuk Central Production Facility #1 is a HAPs area source that operates Liquid Fuel-Fired Equipment EU IDs 19 - 28. Kuparuk Central Production Facility #1 is located in an area of Alaska accessible by the Federal Aid Highway System (FAHS). These emission units are existing units subject to Subpart ZZZZ based on its construction, manufacture, or reconstruction date. Subpart ZZZZ emissions and operating limitations and corresponding MR&R requirements are provided in Conditions 69-76.5.

Existing, non-emergency engines rated between 301 and 500 hp at area sources (EU IDs 23 and 24) are subject only to the general compliance requirements of 40 C.F.R. 63.6605 (good air pollution control practice) after the initial performance testing , compliance reports, and recordkeeping. No subsequent performance testing is required. Further, the requirements of §63.6625(e), §63.6640(a), §63.6655(d) & (e), and Tables 2b, 3, and 6 of Subpart ZZZZ do not apply to these engines .

Conditions 77 - 79, Standard Terms and Conditions

Legal Basis: These are Standard Conditions required under 18 AAC 50.345(a) and (e)-(g) for all operating permits. This provision is incorporated in the Federally approved Alaska operating permit program of November 30, 2001.

Factual Basis: These are Standard Conditions that apply to all permits.

Condition 80, Administration Fees

Legal basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.400-405 as derived from AS 46.14.130.This condition requires the Permittee, owner, or operator to pay administration fees as set out in regulation. Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action.

Factual Basis: The owner or operator of a stationary source who is required to apply for a permit under AS 46.14.130 shall pay to the Department all assessed permit administration fees. The regulations in 18 AAC 50.400-405 specify the amount, payment period, and the frequency of fees applicable to a permit action.

Conditions 81 - 82, Emission Fees

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.410-420. The regulations require all permits to include due dates for the payment of fees and any method the Permittee may use to re-compute assessable emissions.

Factual Basis: These emission fee conditions are Standard Condition I under 18 AAC 50.346(b) adopted pursuant to AS 46.14.010(d). The Department determined that these Standard Conditions adequately meet the requirements of AS 46.14.250. No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the Standard Conditions meet the requirements of AS 46.14.250.

These Standard Conditions require the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date. The Department modified the Standard Condition to correct Condition 82.2 such that it referenced "submitted" (i.e., postmarked) rather than "received" in accordance with the timeframe of Condition 82.1.

The default assessable emissions are generally potential emissions of each air pollutant in excess of 10 tons per year authorized by the permit (AS 46.14.250(h)(1)(A)).

The conditions allow the Permittee to calculate **actual** annual assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1)(B), assessable emissions are based on each air pollutant. Therefore, fees based on actual emissions shall also be paid on any pollutant emitted whether or not the permit contains any limitation of that pollutant.

This Standard Condition specifies that, unless otherwise approved by the Department, calculations of assessable emission based on actual emissions use the most recent previous calendar year's emissions. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match.

Condition 83, Good Air Pollution Control Practice

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(5) and applies to all emission units, **except** those subject to Federal emission standards, those subject to continuous emission or parametric monitoring, and for insignificant emission units, i.e., except EU IDs 29, 32, 33, 34, 37 - 41, 43 - 45, 48 - 50, 56, 58 - 60, 64, and 65. EU ID(s) 19 - 28, 64, and 65 are subject to the Good Air Pollution Control Practice condition only until the applicable compliance date for NESHAP Subpart ZZZZ as set forth in Conditions 69.

Factual basis: The condition requires the Permittee to comply with good air pollution control practices for all units.

The Department adopted this condition under 18 AAC 50.346(b) as Standard operating Permit Condition VI pursuant to AS 46.14.010(e). This condition has been modified in the permit as follows. The Department added the text "EU ID(s) 19 - 28, 64, and 65 are subject to this condition only until the applicable compliance date as set forth in Conditions 69" because on the compliance date in Condition 69, EU IDs 19 - 28, 64, and 65 subject to NESHAP Subpart ZZZZ will no longer be subject to this condition (as units subject to Federal emission standards) and will instead be required to comply with Conditions 69 -

76.5. Records kept in accordance with Condition 83 for units previously subject to GAPCP need to be maintained for 5 years in accordance with Condition 83.2 even if a unit is no longer subject to this condition.

Beyond as noted above, the Department determined that this standard condition adequately meets the requirements of 40 C.F.R. 71.6(a)(3). No additional emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard condition as modified meets the requirements of 40 C.F.R. 71.6(a)(3).

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard Conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed, and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that maintenance has been deferred.

Condition 84, Dilution

Legal Basis: This condition prohibits the Permittee from using dilution as an emission control strategy as set out in 18 AAC 50.045(a). This state regulation applies to the Permittee because the Permittee is subject to emission standards in 18 AAC 50.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 85, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition requires the Permittee to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity in accordance with the applicable requirement in 18 AAC 50.045(d). Bulk material handling requirements apply to the Permittee because the Permittee will engage in bulk material handling, transporting, or storing; or will engage in industrial activity at the stationary source.

Factual Basis: The condition requires the Permittee to comply with 18 AAC 50.045(d), and take reasonable action to prevent particulate matter (PM) from being emitted into the ambient air.

Condition 86, Stack Injection

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.045(e)-(f). It prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). Stack injection

requirements apply to the stationary source because the stationary source contains a stack or source constructed or modified after November 1, 1982.

Factual Basis: No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the source or stack would need to be modified to accommodate stack injection.

Condition 87, Air Pollution Prohibited

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.110. The condition prohibits the Permittee from causing 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. Air Pollution Prohibited requirements apply to the stationary source because the stationary source will have emissions.

Factual Basis: While the other permit conditions and emissions limitation should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

ADEC adopted this Standard Condition into 18 AAC 50.346(a) pursuant to AS 46.14.010(d). The Department determined that this condition adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the Standard Condition meets the requirements of 40 C.F.R. 71.6(a)(3).

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time, and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints and to submit copies of these records upon request of the Department.

Condition 88, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if certain activity causes an exceedance of any technology-based emission standard in this permit. This condition ensures compliance with the applicable requirement in 18 AAC 50.235. Technology Based Emission Standard requirements apply to the stationary source because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or other "technologically feasible" determinations.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 109. Excess emission reporting under Condition 109 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 109.

Condition 89, Asbestos NESHAP

Legal Basis: The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 C.F.R. 61, Subpart M. This condition ensures compliance

with the applicable requirement in 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these Federal regulations.

Condition 90, Refrigerant Recycling and Disposal

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.040(d) and applies if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F, that will apply if the Permittee uses certain refrigerants.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with this federal regulation.

Condition 91, NESHAPS Applicability Determinations

Legal Basis: This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination and applicability of specific Federal regulations that may apply to its stationary sources.

Factual basis: The Permittee has conducted an analysis of the stationary source and determined that it is not a major HAPs stationary source based on emissions. This condition requires the Permittee to keep and make available to the Department copies of the major stationary source determination.

Conditions 92 - 93, Halon Prohibitions

Legal Basis: These prohibitions apply to all stationary sources that use halon for fire extinguishing and explosion inerting. The condition prohibits the Permittee from causing or allowing violations of these prohibitions. The Kuparuk Central Production Facility #1 uses halon and is therefore subject to the federal regulations contained in 40 C.F.R. 82.

Factual basis: These conditions incorporate applicable 40 C.F.R. 82 requirements.

Condition 94, Open Burning

Legal Basis: The open burning state regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee has certified that they do not conduct open burning at the stationary source. However, the Permittee may conduct open burning by first requesting and obtaining a separate open burn permit in accordance with the Department guidelines posted at the website http://www.dec.state.ak.us/air/ap/applic.htm. No specific monitoring is required for this condition. More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning.

Condition 95, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. The Department adopted this condition under 18 AAC 50.345(k) as part of its operating permit program approved by EPA November 30, 2001.

Factual Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.220(a) and applies because this is a Standard Condition to be included in all operating permits. Monitoring consists of conducting the requested source test.

Conditions 96 - 98, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.220(b) and applies because the Permittee is required to conduct source tests by this permit. The Permittee is required to conduct source test as set out in Conditions 96 - 98.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit. Compliance monitoring with Conditions 96 - 98 consist of the test reports required by Condition103.

Condition 99, Test Exemption

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(a) and applies when the emission unit exhaust is observed for visible emissions.

Factual Basis: As provided in 18 AAC 50.345(a), amended November 9, 2008, the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 100 - 103, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.345(l)-(o) and applies because the Permittee is required to conduct source test by this permit.

Factual Basis: Standard Conditions 18 AAC 50.345(l) - (o) are incorporated - these conditions. These Standard Conditions supplement specific monitoring requirements stated elsewhere in this permit. The source test itself monitors compliance with this condition.

Condition 104, Particulate Matter (PM) Calculations

Legal Basis: This condition requires the Permittee to reduce particulate matter data in accordance with 18 AAC 50.220(f). It applies when the Permittee tests for compliance with the PM standards in 18 AAC 50.050 or 50.055.

Factual Basis: The condition incorporates a regulatory requirement for PM source tests. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 105, Recordkeeping Requirements

Legal Basis: Applies because the Permittee is required by the permit to keep records.

Factual Basis: The condition restates the regulatory requirements for recordkeeping, and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide an evidence of compliance with this requirement.

Condition 106, Certification

Legal Basis: This condition requires the Permittee to comply with the certification requirement in 18 AAC 50.205 and applies to all Permittees under EPA's approved operating permit program of November 30, 2001.

Factual Basis: This Standard Condition is required in all operating permits under 18 AAC 50.345(j).

This condition requires the Permittee to certify any permit application, report, affirmation, or compliance certification submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be **certified** with the stationary source report, even though it must still be **submitted** more frequently than the operating report. This condition supplements the reporting requirements of this permit.

Condition 107, Submittals

Legal Basis: This condition requires the Permittee to comply with standardized reporting requirement in 18 AAC 50.326(j) and applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition lists the Department's appropriate address for reports and written notices. Receipt of the submittal at the correct Department office is sufficient monitoring for this condition. This condition supplements the standard reporting and notification requirements of this permit.

Condition 108, Information Requests

Legal Basis: This condition requires the Permittee to submit requested information to the Department. This is a Standard Condition from 18 AAC 50.345(i) of the state approved operating permit program effective November 30, 2001.

Factual Basis: This condition requires the Permittee to submit information requested by the Department. Monitoring consists of receipt of the requested information

Condition 109, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the applicable requirement in 18 AAC 50.235(a)(2) and 18 AAC 50.240. Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation. Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The Department adopted this condition as Standard Operating Permit Condition III under 18 AAC 50.346(c) pursuant to AS 46.14.010(d). The Department determined that this Standard Condition adequately meet the requirements of 40 C.F.R. 71.6(a)(3). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the Standard Conditions meet the requirements of 40 C.F.R. 71.6(a)(3). The Department made a correction to the Standard Operating Permit Condition III to allow identical reporting methodology for both Excess Emissions and Permit Deviations reports which use identical forms and should have identical submissions methods.

Section 14, Notification Form

The Department modified the notification form contained in Standard Permit Condition IV in a revised rulemaking dated September 27, 2010 to more adequately meet the requirements of Chapter 50, Air Quality Control. The modification consisted of correcting typos and moving failure to monitor/report and recordkeeping to the permit deviations Section 2.

Condition 110, Operating Reports

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.346(b)(6) and applies to all permits.

Factual Basis: The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit. The reports themselves provide monitoring for compliance with this condition.

The Department used the Standard Permit Condition VII as adopted into regulation on September 27, 2010. For reporting, MR&R conditions are Standard Permit Condition VII adopted into regulation pursuant to AS 46.14.010(d). The Department determined that these Standard Conditions adequately meet the requirements of 40 C.F.R. 71.6(a)(3)(iii)(A). No emission unit or stationary source operational or compliance factors indicate that unit-specific or stationary-source specific conditions would better meet these requirements. Therefore, the Department concluded that the Standard Conditions meet the requirements of 40 C.F.R. 71.6(a)(3).

For renewal permits, the condition specifies that for the transition periods between an expiring permit and a renewal permit the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may chose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period.

Condition 111, Annual Compliance Certification

Legal Basis: This condition ensures compliance with the applicable requirement in 18 AAC 50.040(j)(4) and applies to all Permittees.

Factual Basis: This condition specifies the periodic compliance certification requirements, and specifies a due date for the annual compliance certification. Each annual certification provides monitoring records for compliance with this condition.

Condition 111.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified. The Permittee may provide one report certifying compliance with each permit term or condition and the effective permit at that time, or may chose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit, and a second report certifying

compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

The Permittee may submit one of the required copies electronically at their discretion. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the Department can more efficiently distribute the electronic copy to staff in other locations.

Condition 112, NSPS and NESHAP Reports

Legal Basis: The Permittee is required to provide the Federal Administrator and Department a copy of each emission unit report for units subject to NSPS or NESHAP Federal regulations under 18 AAC 50.326(j)(4). 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: The condition supplements the specific reporting requirements in 40 C.F.R. 60, 40 C.F.R. 61, and 40 C.F.R. 63. The reports themselves provide monitoring for compliance with this condition.

Condition 113, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the State to satisfy the Federal requirement to submit emission inventory data from point sources as required under 40 CFR 51.321 (6/10/02). It applies to emission units defined as point sources in 40 CFR 51.20. The State must report all data elements in Table 2A of Appendix A to Subpart A of 40 CFR 51 to EPA (73 FR 76556).

Factual Basis: The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1), 12/17/08). A due date of March 31 corresponds with sources reporting actual emissions for assessable emissions purposes and provides the Department sufficient time to enter the data into EPA's electronic reporting system.

The air emissions reporting requirements under 40 CFR Part 51 Subpart A apply to States; however, States rely on information provided by point sources to meet the reporting requirements of Part 51 Subpart A. In the past, the Department has made information requests to point sources, to which the point source is obligated to reply under 18 AAC 50.200. The information requests occur on a routine basis as established by Part 51 Subpart A and consume significant staff resources. To increase governmental efficiency and reduce costs associated with information requests that occur on a routine basis, it has been determined that a standard permit condition best fulfills the need to gather the information needed to satisfy the requirements of Subpart A of 40 CFR 51.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources classified as Type A in Table 1 of Appendix A to Subpart A of 40 CFR 51 are required to submit with each annual report all the data elements required for the Type B source triennial reports (see also Table 2A of Appendix A to Subpart A of 40 CFR Part 51). All Type A sources are also classified as Type B sources. However the Department has streamlined the reporting requirements so Type A sources only need to submit a single type of report every year instead of both an annual report and a separate triennial report every third year.

Condition 114, Permit Applications and Submittals

Legal Basis: The Permittee may need to submit permit applications and related correspondence.

Factual Basis: Standard Condition XIV directs the applicant to send copies of all application materials required to be submitted to the Department directly to the EPA, in electronic format if practicable. This condition shifts the burden of compliance from the Department to ensure that copies of application materials are submitted to EPA by transferring that responsibility to the Permittee.

Conditions 114 - 117, Permit changes and revisions requirements

Legal Basis: The Permittee is obligated to notify the Department of certain off-permit source changes and operational changes under18 AAC 50.326(j)(4). 40 C.F.R. 71.6(a)(10), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require these provisions within this permit. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: These are conditions required in 40 C.F.R. 71.6 for all operating permits to allow changes within a permitted stationary source without requiring a permit revision.

The Permittee did not request trading of emission increases and decreases as described in 71.6(a)(13)(iii).

Condition 118, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accordance with the operating permit program under18 AAC 50.326(j)(3). The obligations for a timely and complete operating permit application are set out in 40 C.F.R. 71.5 incorporated by reference in 18 AAC 50.040(j)(3). 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to Kuparuk Central Production Facility #1 as listed in this condition. As stated in 40 C.F.R. 71.5(a)(1)(iii), submission for a permit renewal application is considered <u>timely</u> if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 C.F.R. 71.5(a)(2), a <u>complete</u> renewal application is one that provides all information required pursuant to 40 C.F.R. 71.5(c) and must remit payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 C.F.R. 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

Therefore, for as long as an application has been submitted within the timeframe allowed under 40 C.F.R. 71.5(a)(1)(iii), and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the

applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application. Monitoring, recordkeeping, and reporting for this condition consist of the application submittal.

Conditions 119 - 122, General Compliance Requirements and Schedule

Legal Basis: These conditions ensure compliance with the applicable requirement in 18 AAC 50.326(j)(3). The Permittee is required to comply with these Standard Conditions set out in 18 AAC 50.345 included in all operating permits. 40 C.F.R. 70 Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: These are Standard Conditions for compliance required for all operating permits.

Conditions 124 - 125, Permit Shield

Legal Basis This condition ensures compliance with the applicable requirement in 18 AAC 50.326(j) and applies because the Permittee has requested that the Department shield the source from the potentially applicable requirements listed under this condition under the Federally approved State operating program effective November 30, 2001.

Factual Basis: Table F of Operating Permit No. AQ0267TVP02 shows the permit shield that the Department granted to the Permittee. The following table shows the requests that were denied and the reasons that they were denied. The Department based the determinations on the permit application, past operating permit, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.

The basis for the permit shield from 40 C.F.R. 63, Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities is that Subpart CCCCCC does not apply to portable storage vessels. While storage vessels (tanks) are not specifically defined in Subpart CCCCCC, this subpart indicates that "all terms not defined herein shall have the meaning given them in the Clean Air Act (CAA), or in subparts A and BBBBBB of this part." 40 C.F.R. 63, Subpart BBBBBB also does not define the term "storage vessel" and for any definitions not found in Subpart BBBBBB, it refers the reader to "subparts A, K, Ka, Kb, and XX of part 60 of this chapter, or in subparts A, R, and WW of this part. All terms defined in both subpart A of part 60 of this chapter and subparts A, R, and WW of this part shall have the meaning given in subparts A, R, and WW of this part." Neither 40 C.F.R. 63, Subpart R nor 40 C.F.R. 60, Subpart XX defines "storage vessel" or "tank". 40 C.F.R. 63, Subpart WW (Storage Tank MACT) applies to "stationary units" according to the definition of a tank. In addition, 40 C.F.R. 60, Subpart Kb states that it does not apply to "vessels permanently attached to motor vehicles, such as trucks, railcars, barges, or ships". Tank TK-FA-0501-10 is permanently mounted on a wheeled trailer, which, similar to a barge or a railcar, is not stationary and, therefore, not a regulated storage vessel or tank. A permit shield has not been granted for this regulation for Portable Gasoline Storage Tank TK-FA-0501-10

Table P - Permit Shields Denied

Shield requested for:	Reason for shield request:	Reason for request denial:
All Flares		
18 AAC 50.055(b)(1) and (c) - Particulate matter and Sulfur compounds emitted from an industrial process or fuel-burning equipment	Alaska SIP – "Due to the extreme difficulty and questionable validity of performing source tests on the exhaust plume of fuel-burning flares for particulate and sulfur dioxide emissions, the emissions limitations identified in 18 AAC 50.050(b) and 50.050(c) [now 50.055(b) and 50.055(c) in the current regulations] do not apply to fuel-burning flares" (Page IV, G, 2-4)	The exemption (rev. 11/84) cited is not part of the Federally approved state air quality control plan. The last time the cited section was approved by the EPA was in 1983. Therefore, the emission standards apply Federally but are exempted by state regulation.
Gas-fired Heaters (E-CL06-A & B, H-P101-A & B); Drill Site Heaters (H-1L01 & 1M01); Diesel-Fired Equipment (P-205); and Storage Tank (T-179)		
All Requirements	They have been taken out of service.	The emission units are not in the emission unit inventory list and are not the subject of this permit.
All Combustion Turbines		
40 C.F.R. Part 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines	Construction, modification, or reconstruction of each Turbine commenced prior to the applicability date of February 18, 2005.	Turbines may become subject to this requirement during the permit term if construction, modification or reconstruction occurs.
Storage Tanks: T-176, T-1009, and T-CL03		
40 C.F.R. 60, Subpart Kb	Subpart Kb does not apply to vessels with a capacity ≥ 75 $_{m}3$ but <151 m^3 storing a liquid with a maximum true vapor pressure <15 kPA (2.18 psia).	Tanks may become subject to this requirement during permit if used to store liquid with a maximum true vapor pressure <15 kPA (2.18 psia).
Storage Tanks: T-1A01, T-1E01, T-1L01, T-1F1901, T-1G01, T-1Q01, T-1R01, and T-1Y01		
40 C.F.R. 60, Subpart Ka	Vessels do not store a *petroleum liquid*, as defined in subpart.	Tanks may become subject to this requirement during permit if used to store alternate material.
Engines EU IDs 19 and 20		
40 C.F.R. 63, Subpart ZZZZ	Engines are emergency use only	Subpart ZZZZ hours flexibility between emergency and stationary RICE applicability based on hours of operation. Since these engines may be used more than 100 hours, the requested shield was denied.
Storage Tanks: T-201, G1-19501, G1-19502, G1-19503, and G1-19504		
40 C.F.R. 60, Subpart Ka	Maximum TVP of petroleum liquid stored below 40 C.F.R. 60.112a thresholds for equipment standards (1.5 psia) and 40 C.F.R. 60.115a thresholds for monitoring of operations (1.0 psia).	Tanks may become subject to this requirement during permit if used to store liquid with a maximum true vapor pressure greater than the 1.5 psia thresholds for equipment standards or the 1.0 psia thresholds for monitoring of operations.
All Heaters and Boilers		

Shield requested for:	Reason for shield request:	Reason for request denial:
40 C.F.R. 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Industrial/ Commercial/Institutional Boilers and Process Heaters	CPF 1 and associated drill sites are not a major source of HAPs.	40 C.F.R. 63, Subpart DDDDD has been vacated and therefore is not applicable to any boilers or heaters at this stationary source.
Stationary Source-Wide		
18 AAC 50.045(b) – Prohibitions	The permit implements all applicable air quality requirements for the stationary source. Since compliance with the permit will constitute compliance with applicable local, state, or Federal air quality laws, this requirement is not applicable to the stationary source.	The conditions in the permit are derived from the state regulations. If the regulation is negated then the condition that derives from the regulation is likewise negated. The applicant attempts a circular argument.
18 AAC 50.045(c) – Prohibitions	These requirements will be implemented - 18 AAC 50.201, which is otherwise addressed in the permit. This requirement is not applicable because the Department will impose any special requirements to protect ambient air quality - permit conditions adopted under 50.201.	The conditions in the permit are derived from the state regulations. If the regulation is negated then the condition that derives from the regulation is likewise negated.

Attachment A

Pollutant (Circle One) SO_2 NO_X TRS H_2S CO Opacity

Reporting period dates: _____ to _____

Company: _____

Emission Limitation _____

Address: _____

Monitor Manufacturer and Model No _____

Date of Latest CMS (CEMS and PEMS) Certification or Audit _____

Process Unit(s) Description: _____

Total Emission Unit operating time in reporting period[1] _____

Figure 1 -- Summary Report -- Excess Emission and Monitoring System Performance

Emission data summary[1]	**CMS (CEMS and PEMS) performance summary[1]**
1. Duration of excess emissions in reporting period due to:	1. CMS (CEMS and PEMS) 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 emission _____	2. Total CMS (CEMS and PEMS) Downtime _____
3. Total duration of excess emissions X (100)/[Total emission unit operating time] _____ %[2]	3. [Total CMS (CEMS and PEMS) Downtime] X (100)/[Total emission unit 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 (CEMS or PEMS) downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in this condition shall be submitted.

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: