DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL MINOR PERMIT

Minor Permit AQ1201MSS03 Revision 3 **Preliminary – May 18, 2016**
Rescinds Permit AQ1201MSS03 Revision 2

The Alaska Department of Environmental Conservation (Department), under the authority of AS 46.14 and 18 AAC 50, issues Air Quality Control Minor Permit AQ1201MSS03 Revision 3 to the Permittee listed below.

Operator and Permittee:	ExxonMobil Alaska Production Inc. P.O. Box 196601 Anchorage, AK 99519
Owner:	ExxonMobil Alaska Production Inc.
Stationary Source:	Point Thomson Production Facility
Location:	Latitude: 70.2^{o} North; Longitude: 146.3^{o} West
Physical Address:	Point Thomson, North Slope, Alaska
Permit Contact:	Kaitlyn Payne; Phone: (907) 334-2974 Kaitlyn.m.payne@exxonmobil.com
Project:	Point Thomson Production Facility
Revision 3:	Increase Turbine Operation out of SoLoNOx Mode

The original Point Thomson Production Facility project is classified under 18 AAC 50.502(c)(1) because potential oxides of nitrogen (NOx) and particulate matter emissions from the new stationary source exceed the applicable thresholds under 18 AAC 50.502(c)(1). The original project is also classified under 18 AAC 50.508(5) to establish owner requested limits (ORLs) to avoid a permit classification under AS 46.14.130, to avoid Prevention of Significant Deterioration (PSD) for NOx and minor permit applicability for sulfur dioxide (SO_2). The project is also classified under 18 AAC 50.502(c)(2)(A) for a portable oil and gas operation. Revision 3 is classified under 18 AAC 50.508(6) for revising an existing permit condition. As required by AS 46.14.120(c) the Permittee shall comply with the terms and conditions of this permit.

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John F. Kuterbach, Manager
Air Permits Program

Table of Contents

Section 1 Emission Unit Inventory

1. **Emission Units (EU) Authorization.** The Permittee is authorized to install and operate the EUs listed in Table 1 through Table 5. Except as noted elsewhere in the permit the information in Table 1 through Table 5 is for information purposes only. The specific EU descriptions do not restrict the Permittee from replacing an EU identified in Table 1 through Table 5. The Permittee shall comply with all applicable provisions of AS 46.14 and 18 AAC 50 when installing a replacement EU, including any applicable minor or construction permit requirement.

Table 1 – Stationary Drilling, Workover, and Miscellaneous Support

ID	Emission Unit	Make / Model	Fuel Type	Max Capacity
1	Drill Rig Boiler No. 1	Superior 100	ULSD	4.2 MMBtu/hr
2	Drill Rig Boiler No. 2	Superior 150	ULSD	6.3 MMBtu/hr
3	Drill Rig Pipeshed Tioga Air Heater No. 1	Tioga Iron Fireman; C-240-F-4.2	ULSD	4.2 MMBtu/hr
4	Drill Rig Pipeshed Tioga Air Heater No. 2	Tioga Iron Fireman; C-240-F-4.2	ULSD	4.2 MMBtu/hr
5	Drill Rig Support Boiler No. 1	Superior 150	ULSD	6.3 MMBtu/hr
6	Drill Rig Support Boiler No. 2	Superior 150	ULSD	6.3 MMBtu/hr
7	Truck Shop No. 1 Heater No. 1	Reznor OH190	ULSD	0.229 MMBtu/hr
7A	Truck Shop No. 1 Heater No. 2	Reznor OH190	ULSD	0.229 MMBtu/hr
8	Truck Shop No. 2 Heater No. 1	Reznor OH190	ULSD	0.229 MMBtu/hr
8A	Truck Shop No. 2 Heater No. 2	Reznor OH190	ULSD	0.229 MMBtu/hr
14	Warehouse Heater No.1	TBD	ULSD	1.5 MMBtu/hr
15	Warehouse Heater No. 2	TBD	ULSD	1.5 MMBtu/hr
16	Bulk Tank Storage Area Boiler No. 1	Weil-McLain 1688	ULSD	5.16 MMBtu/hr
17	Bulk Tank Storage Area Boiler No. 2	Weil-McLain 1688	ULSD	5.16 MMBtu/hr
25	Portable Heater No. 1	ES 700	ULSD	0.7 MMBtu/hr
26	Portable Heater No. 2	ES 700	ULSD	0.7 MMBtu/hr
27	Portable Heater No. 3	ES 700	ULSD	0.7 MMBtu/hr
30	Portable Heater No. 4	TBD	ULSD	2.75 MMBtu/hr
31	Portable Heater No. 5		ULSD	2.75 MMBtu/hr
32	Portable Heater No. 6		ULSD	2.75 MMBtu/hr
33	Portable Heater No. 7		ULSD	2.75 MMBtu/hr
34	Portable Heater No. 8		ULSD	2.75 MMBtu/hr
35	Portable Heater No. 9		ULSD	2.75 MMBtu/hr
66	Portable Drill Rig Heater Unit No. 1	TBD	ULSD	0.5 MMBtu/hr
67	Portable Drill Rig Heater Unit No. 2	TBD	ULSD	0.5 MMBtu/hr
71	Disposal Well Liquid Injection Skid Engine No. 1	Cummins QSX15	ULSD	600 hp
71A	Disposal Well Liquid Injection Skid Engine No. 2	Cummins QSX15	ULSD	600 hp
72	Injection Support Generator Engine No. 1	Cummins QSB5-G9	ULSD	156 hp
72A	Injection Support Generator Engine No. 2	Cummins QSB5-G9	ULSD	156 hp
78	Tioga Heater No. 1	Tioga IDF-3-SCOK	ULSD	0.9 MMBtu/hr
79	Tioga Heater No. 2	Tioga IDF-3-SCOK	ULSD	0.9 MMBtu/hr
80	Tioga Heater No. 3	Tioga IDF-3-SCOK	ULSD	0.9 MMBtu/hr
81	Glycol Boiler No. 1	Weil-McLain 1288	ULSD	3.8 MMBtu/hr
81A	Glycol Boiler No. 2	Weil-McLain 1288	ULSD	3.8 MMBtu/hr
82	Injection Skid Engine No. 1	Caterpillar C4.4	ULSD	156 hp

82A	Injection Skid Engine No. 2	Caterpillar C4.4	ULSD	156 hp
89	Drilling Support Heater No. 1	Miscellaneous Heater	ULSD	1 MMBtu/hr
90	Drilling Support Heater No. 2	Miscellaneous Heater	ULSD	1 MMBtu/hr
91	Drilling Support Heater No. 3	Miscellaneous Heater	ULSD	1 MMBtu/hr
92	Drilling Support Heater No. 4	Miscellaneous Heater	ULSD	1 MMBtu/hr
93	Drilling Support Heater No. 5	Miscellaneous Heater	ULSD	1 MMBtu/hr
96	Hot Oil Unit Heater	SPD-6 SuperTherm	ULSD	8.0 MMBtu/hr

Table 2: Nonroad (NRE) Mobile Engines, Drilling, Workover, & Misc Support

ID	Emission Unit	Make / Model	Fuel Type	Max Capacity
18	Bulk Tank Storage Area Generator Engine No. 1	Caterpillar C15	ULSD	779 hp
19	Bulk Tank Storage Area Generator Engine No. 2	Caterpillar C15	ULSD	779 hp
20	Bulk Tank Storage Area Generator Engine No. 3	MMD Power Pro 150	ULSD	190 hp
21	Bulk Tank Storage Area Generator Engine No. 4	MMD Power Pro 150	ULSD	190 hp
22	Bulk Tank Storage Area Heater Engine No. 1	Caterpillar C6.6	ULSD	174 hp
23	Bulk Tank Storage Area Heater Engine No. 2	Caterpillar C6.6	ULSD	174 hp
47	Drill Rig Generator Engine No. 1	Caterpillar 399	ULSD	1,195 hp
48	Drill Rig Generator Engine No. 2		ULSD	1,195 hp
49	Drill Rig Generator Engine No. 3		ULSD	1,195 hp
50	Drill Rig Generator Engine No. 4		ULSD	1,195 hp
51	Sub-base Cold Start Engine	Cummins QSB7-G5 NR3	ULSD	324 hp
52	Mud Module Cold Start Generator Engine	Cummins QSB7-G3 NR3	ULSD	250 hp
53	Pump Module Cold Start Generator Engine	Cummins QSB7-G3 NR3	ULSD	250 hp
56	Reserve Mud Pit Aux Engine No. 1	Cummins QSL9-G3 NR3	ULSD	399 hp
57	Reserve Mud Pit Aux Engine No. 2	Cummins QSL9-G3 NR3	ULSD	399 hp
58	Drill Rig Generator Engine No. 5	Caterpillar 399	ULSD	1,105 hp
59	Drill Rig Generator Engine No. 6		ULSD	1,104 hp
60	Drill Rig Generator Engine No. 7		ULSD	1,108 hp
61	Drill Rig Generator Engine No. 8		ULSD	1,102 hp
62	Auxiliary Motor Complex Cold Start Generator Engine	Cummins QSB7-G5 NR3	ULSD	324 hp
63	Portable Moving Generator Engine No. 1	TBD	ULSD	113 hp
64	Portable Moving Generator Engine No. 2	TBD	ULSD	113 hp
65	Main Motor Complex Cold Start Generator Engine	Cummins QSB7-G5 NR3	ULSD	324 hp
68	Cement Unit Engine No. 1	Caterpillar C9	ULSD	340 hp
69	Cement Unit Engine No. 2	Caterpillar C9	ULSD	340 hp
73	Brine Filtration Generator Engine No. 1	Cummins QSM11-G4 NR3	ULSD	470 hp
74	Bulk Tank Storage Area Heater Engine No. 3	Caterpillar C6.6	ULSD	174 hp
75	Bulk Tank Storage Area Heater Engine No. 4	Caterpillar C6.6	ULSD	174 hp
76	Bulk Tank Storage Area Heater Engine No. 5	Caterpillar C6.6	ULSD	174 hp
77	Bulk Tank Storage Area Heater Engine No. 6	Caterpillar C6.6	ULSD	174 hp
83	Drilling Support Engine No. 1	Kubota V3600-T-E3BG	ULSD	43 hp
84	Drilling Support Engine No. 2	John Deere 4045HFG92	ULSD	120 hp
85	Drilling Support Engine No. 3	John Deere 4045HFG92	ULSD	120 hp
86	Drilling Support Engine No. 4	John Deere 4045HFG92	ULSD	120 hp
87	Drilling Support Engine No. 5	John Deere 4045HF275	ULSD	115 hp
88	Drilling Support Engine No. 6	John Deere 4045HF275	ULSD	115 hp
94	Brine Filtration Generator Engine No. 2	QSM11-G4 NR3	ULSD	470 hp
97	Bulk Mud Engine No. 1	Caterpillar C4.4	ULSD	54 hp

98	Bulk Mud Engine No. 2	Caterpillar C4.4	ULSD	54	hp
99	Coil Tubing Unit Engine	John Deere 4039D	ULSD	66	hp
301	Well Stimulation Pump Engine No. 1	Caterpillar 3512	ULSD	2,250	hp
302	Well Stimulation Pump Engine No. 2	Caterpillar 3512	ULSD	2,250	hp
303	Well Stimulation Pump Engine No. 3	Caterpillar 3512	ULSD	2,250	hp
304	Well Stimulation Pump Engine No. 4	Caterpillar 3412	ULSD	800	hp
305	Well Stimulation Pump Engine No. 5	Caterpillar 3412	ULSD	800	hp
306	Well Stimulation Pump Engine No. 6	Caterpillar 3412	ULSD	800	hp
307	Well Stimulation Pump Engine No. 7	Caterpillar 3412	ULSD	800	hp
308	Well Stimulation Pump Engine No. 8	Caterpillar C32	ULSD	800	hp
309	Well Stimulation Pump Engine No. 9	Caterpillar C32	ULSD	800	hp
310	Well Stimulation Blender Deck Engine	Caterpillar C32	ULSD	1,000	hp
311	Well Stimulation Gel Blender Deck Engine	Caterpillar C13	ULSD	520	hp
312	Well Stimulation Van Engine	TCC Van	ULSD	250	hp
313	Well Stimulation Loads Prop Silo Engine	Transloader	ULSD	50	hp
314	Cement Unit Engine No. 3	John Deere	ULSD	91	hp
315	Brine Filtration Support Engine	Caterpillar C2.2	ULSD	61	hp
316	Bulk Barite Engine	John Deere	ULSD	75	hp
317	Cement Unit Support Engine	Deutz F6L914	ULSD	83	hp

Table 3: Production Emission Units

ID	Emission Unit	Make / Model	Fuel Type	Max Capacity	
101	Fuel Gas Fired Turbine	Solar 70 Taurus	Fuel Gas	7,520	kW
102	Fuel Gas Fired Turbine		Fuel Gas	7,520	kW
103	Dual Fuel Fired Turbine	Solar 70 Taurus	Fuel Gas / ULSD	7,520	kW
104	Dual Fuel Fired Turbine			7,520	kW
105	Waste Incinerator	220 pounds per hour	Gas, ULSD or Trash	4.9	MMBtu/hr
107	Standby Camp Generator Engine No. 1	TBD	ULSD	2,695	hp
108	Standby Camp Generator Engine No. 2	TBD	ULSD	2,695	hp
109	Standby Camp Generator Engine No. 3	TBD	ULSD	2,695	hp
110	Fine Water Mist Pump Engine No. 1	TBD	ULSD	610	hp
111	Fine Water Mist Pump Engine No. 2	TBD	ULSD	610	hp
112	HP Flare	TBD	Gas	35	MMscf/yr
113	LP Flare-Pilot/Purge	TBD	Gas	20	MMscf/yr
114	Airstrip Generator Engine	TBD	ULSD	563	hp

Table 4: Stationary Construction Emission Units

ID	Emission Unit	Make / Model	Fuel Type	Max Capacity	
203	340 Man Camp Generator Engine No. 1	TBD	ULSD	972	hp
204	340 Man Camp Generator Engine No. 2	TBD	ULSD	972	hp
205	340 Man Camp Generator Engine No. 3	TBD	ULSD	972	hp
203A	340 Man Camp Generator Engine No. 4	TBD	ULSD	972	hp
204A	340 Man Camp Generator Engine No. 5	TBD	ULSD	972	hp
206	Permanent Camp Generator Engine No. 1	TBD	ULSD	972	hp
207	Permanent Camp Generator Engine No. 2	TBD	ULSD	972	hp
208	Permanent Camp Generator Engine No. 3	TBD	ULSD	972	hp

206A	Permanent Camp Generator Engine No. 4	TBD	ULSD	972	hp
207A	Permanent Camp Generator Engine No. 5	TBD	ULSD	972	hp
209	Raw Water Skid Pump Engine No. 1	TBD	ULSD	75	hp
210	Raw Water Skid Pump Engine No. 2	TBD	ULSD	75	hp
213	Fuel Tank Farm Generator Engine No. 1	TBD	ULSD	275	hp
214	Fuel Tank Farm Generator Engine No. 2	TBD	ULSD	275	hp
217	Airstrip Generator Engine No. 1	TBD	ULSD	374	hp
218	Airstrip Generator Engine No. 2	TBD	ULSD	374	hp
223	Module 110 Generator Engine No. 1	TBD	ULSD	490	hp
223A	Module 110 Generator Engine No. 2	TBD	ULSD	374	hp
228	Raw Water Tank Heater	TBD	ULSD	4.97	MMBtu/hr
240	Incinerator Generator Engine No. 1	TBD	ULSD	102	hp
246	Temporary Incinerator No. 1	200 lb/hr	ULSD/Trash	25	gal/hr
260	Alaska State C-1 Pad Camp Generator Engine No. 1	TBD	ULSD	385	hp
261	Alaska State C-1 Pad Camp Generator Engine No. 2	TBD	ULSD	385	hp
262	Alaska State C-1 Pad Camp Generator Engine No. 3	TBD	ULSD	385	hp
263	Alaska State C-1 Pad Camp Generator Engine No. 4	TBD	ULSD	385	hp
264	Subcontractor Management Office Generator Engine No. 1	TBD	ULSD	292	hp
265	Subcontractor Management Office Generator Engine No. 2	TBD	ULSD	292	hp
284	Field Wide Support Engine No. 2	TBD	ULSD	35	hp
285	Construction Portable Heater No. 1	TBD	ULSD	1	MMBtu/hr
286	Construction Portable Heater No. 2	TBD	ULSD	1	MMBtu/hr
287	Construction Portable Heater No. 3	TBD	ULSD	1	MMBtu/hr
288	Construction Portable Heater No. 4	TBD	ULSD	1	MMBtu/hr
289	Construction Portable Heater No. 5	TBD	ULSD	1	MMBtu/hr
290	Construction Portable Heater No. 6	TBD	ULSD	1	MMBtu/hr
291	Field Wide Portable Heater No. 1	TBD	ULSD	1	MMBtu/hr
292	Field Wide Portable Heater No. 2	TBD	ULSD	1	MMBtu/hr
293	Field Wide Portable Heater No. 3	TBD	ULSD	1	MMBtu/hr
294	Field Wide Portable Heater No. 4	TBD	ULSD	1	MMBtu/hr
295	Field Wide Portable Heater No. 5	TBD	ULSD	1	MMBtu/hr
296	Field Wide Portable Heater No. 6	TBD	ULSD	1	MMBtu/hr

Table 5: Nonroad Engines (NRE): Construction Emission Units

ID	Emission Unit	Make / Model	Fuel Type	Max Capacity	
224	System Completion Generator Engine No. 1	TBD	ULSD	923	hp
225	System Completion Generator Engine No. 2	TBD	ULSD	923	hp
226	System Completion Generator Engine No. 3	TBD	ULSD	923	hp
227	System Completion Generator Engine No. 4	TBD	ULSD	923	hp
248	Ice Road Inspection Office Generator Engine No. 1	TBD	ULSD	80	hp
249	32 Man Camp Generator Engine No. 1	TBD	ULSD	248	hp
250	32 Man Camp Generator Engine No. 2	TBD	ULSD	248	hp
251	Temporary Fuel Tank Farm Generator Engine No. 1	TBD	ULSD	80	hp
252	Temporary Fuel Tank Farm Generator Engine No. 2	TBD	ULSD	80	hp
255	NOSI Office Generator Engine	TBD	ULSD	80	hp
256	Bell Surveyor Office Trailer Generator Engine	TBD	ULSD	60	hp
257	Office Spare Generator Engine	TBD	ULSD	60	hp
258	50 Man Camp Generator Engine No. 1	TBD	ULSD	235	hp
259	50 Man Camp Generator Engine No. 2	TBD	ULSD	235	hp
269	Construction Generation, Engine No. 4	TBD	ULSD	43	hp

270	Construction Generation, Engine No. 5	TBD	ULSD	120	hp
271	Construction Generation, Engine No. 6	TBD	ULSD	120	hp
272	Construction Generation, Engine No. 7	TBD	ULSD	120	hp
274	Construction Generation, Engine No. 9	TBD	ULSD	151	hp
275	Construction Generation, Engine No. 10	TBD	ULSD	151	hp
278	Construction Generation, Engine No. 13	TBD	ULSD	43	hp
279	Construction Generation, Engine No. 14	TBD	ULSD	43	hp
280	Construction Generation, Engine No. 15	TBD	ULSD	43	hp

Notes for

Table 1 through Table 5

ULSD: Ultra Low Sulfur Diesel
NRE: Nonroad Engine
TBD: To be Determined
kW: Kilowatts
hp: Horsepower
MMBtu/hr: Million British thermal units per hour
lb/hr: Pounds per hour
MMscf/yr: Million standard cubic feet per year

2. **Verification of Equipment Specifications and Maintenance of Equipment.** The Permittee shall install and maintain the equipment in Table 1, Table 3, and Table 4 according to the manufacturer's or operator's maintenance procedures.

2.1 **Verification**: Keep the manufacturer's literature that shows the specifications of the installed equipment onsite and make available to Department personnel on request. The records may be kept in electronic format.

2.2 **Maintenance**: Keep a copy of the manufacturer's or operator's maintenance procedure onsite and make records available to Department personnel on request. The records may be kept in electronic format.

Section 2 Emission Fees

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

    3.1 the stationary source's assessable potential to emit of 466 tpy; or

    3.2 the stationary source's projected annual rate of emissions that will occur from July 1st to the following June 30th, 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**.**

4. **Assessable Emission Estimates.** Emission fees will be assessed as follows:

    4.1 no later than March 31st 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 Avenue, PO Box 111800, Juneau, AK 99811-1800. 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

    4.2 if no estimate is received on or before March 31st of each year, emission fees for the next fiscal year will be based on the potential to emit set forth in Condition 3.1.

Section 3 State Emission Standards

5. **Industrial Process and Fuel-Burning Equipment Visible Emissions (VE).** The Permittee shall not cause or allow VE, excluding water vapor, emitted from industrial process and fuel burning EUs listed in Table 1, Table 3, and Table 4 to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes in any one hour. Monitor, record, and report as follows:

    5.1 For EUs 71, 71A, 72, 72A, 82, 82A, 203 through 210, 203A, 204A, 206A, 207A, 213, 214, 217, 218, 223, 223A, 240, 260 through 265, 284, 101 through 104, and 107 through 114; record the date of initial startup[1] of each EU.

    5.2 For diesel-fired EUs 71, 71A, 72, 72A, 82, 82A, 107 through 111, 114, 203 through 210, 203A, 204A, 206A, 207A, 213, 214, 217, 218, 223, 223A, 240, 260 through 265, 284, and EUs 103 and 104 when firing ultra-low sulfur diesel (ULSD), verify initial compliance of each EU with Condition 5 no later than 90 days after initial startup of the EU as follows:

        a. Obtain a certified manufacturer's guarantee that shows that the EUs will comply with Condition 5; or

        b. Conduct VE source test as described in 40 CFR 60, Appendix A-4 Method 9;

        c. Report in the operating report required under Condition 45, the manufacturer guarantee or the VE source test results required in Condition 5.2a or 5.2b.

6. **Incinerator VE**. The Permittee shall not cause or allow VE, excluding condensed water vapor, through the exhaust effluent of waste incinerators (EUs 105 and 246) to reduce visibility by more than 20 percent averaged over any six consecutive minutes. Monitor, record, and report as follows:

    6.1 Record the date of initial startup of the waste incinerators.

    6.2 Verify compliance with Condition 6 no later than 90 days of initial startup as follows:

        a. Obtain a certified manufacturer's guarantee the EUs will comply with Condition 6; or

        b. Conduct VE source test as described in 40 CFR 60, Appendix A-4 Method 9;

        c. Include in the operating report required under Condition 45, the manufacturer guarantee or the VE source test results required in Condition 6.2a or Condition 6.2b.

[1] For the purposes of Section 3 of this permit, startup is defined as the period that begins when fuel is supplied to the unit and ends when the unit reaches stable operations, and not as defined at 18 AAC 50.990(103).

7. **VE Emissions Monitoring**: The Permittee shall observe the exhaust of diesel-fired EUs 71, 71A, 72, 72A 82, 82A, 203 through 210, 203A, 204A, 206A, 207A, 213, 214, 217, 218, 223, 223A, 240, 260 through 265, 284, 107 through 111, 114, waste incinerators (EUs 105 and 246) and when firing ULSD in EUs 103 and 104 for VE using Method 9 Plan described under Condition 7.1.

7.1 *Method 9 Plan*: For all 18-minute observations in this plan, observe exhaust, following 40 CFR 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: Observe exhaust for 18 minutes within 90 days after initial startup. For any EUs replaced, observe exhaust for 18 minutes within 30 days of startup.

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

c. Semiannual Method 9 Observation: After observing emissions for three consecutive operating months under Condition 7.1b, unless a six-minute average exceeds 15 percent and one or more observations exceed 20 percent, perform 18-minute observations:

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

(ii) For an emission unit with intermittent operations, within 30 days after the next scheduled operation immediately following six months after the preceding observation.

d. Annual Method 9 Observations: After at least two semiannual 18-minute observations, unless a six-minute average exceeds 15 percent and one or more observations exceed 20 percent, perform 18-minute observations:

(i) Within 12 months after the preceding observation; or

(ii) For an emission unit with intermittent operations, within 30 days after the next scheduled operation immediately following 12 months after the preceding observation.

e. Increased Method 9 Frequency: If a six-minute average opacity observed during the most recent set of observations exceeds 15 percent and one or more observations exceeds 20 percent, then increase or maintain the 18-minute observation frequency for that EU to at least monthly, until the criteria in Condition 7.1c for semiannual monitoring are met.

8. **VE Recordkeeping**: The Permittee shall keep records as follows:

8.1 When using the Method 9 Plan of Condition 7.1:

a. The observer shall record

(i) the name of the stationary source, EU and location, EU type, observer's name and affiliation, and the date on the VE Emissions Field Data Sheet in Attachment 1;

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

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

(iv) opacity observations to the nearest five percent at 15-second intervals on the VE Observations Record in Attachment 1; and

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

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

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

9. **VE Reporting**: The Permittee shall report VE as follows:

9.1 In each stationary source operating report required under Condition 45, include for the period covered by the report:

a. Copies of the observation results (i.e. opacity observations) for the EUs, except for the observations the Permittee has already submitted 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 exceeded 20 percent.

c. A summary of any monitoring or recordkeeping required under Condition 7 and Condition 8 that was not done.

9.2 Report under Condition 44:

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

b. Any monitoring under Condition 7 that was not performed when required.

10. **Industrial Process and Fuel-Burning Equipment Particulate Matter (PM).** The Permittee shall not cause or allow PM emitted from industrial process and fuel burning EUs listed in Table 1, Table 3, and Table 4 to exceed 0.05 grains per dry standard cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

10.1 Monitor, record, and report for compliance with Condition 10 by complying with Conditions 5, 7, 8, and 9.

11. **Sulfur Compound Emissions.** The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from industrial process and fuel burning EUs listed in Table 1, Table 3, and Table 4 to exceed 500 parts per million by volume (ppmv) averaged over a period of three hours.

11.1 Monitor, record, and report for compliance with Condition 11 by complying with Conditions 29 and 30.

Section 4 Ambient Air Quality Protection Requirements

12. To protect the nitrogen dioxide (NO_2), particulate matter with an aerodynamic diameter not exceeding a nominal 10 micrometers (PM-10), particulate matter with an aerodynamic diameter not exceeding a nominal 2.5 micrometers (PM-2.5), and SO_2 ambient air quality standards, the Permittee shall operate the stationary source as described below:

Public Access Control Plan

12.1 Comply with the provisions contained in the February 2013 Public Access Control Plan (as provided in Attachment 3), or a subsequent written version approved by the Department that only contains editorial revisions.

Stack Configuration

12.2 Construct and maintain vertical, uncapped exhaust stacks for all EUs listed in Table 1 through Table 5, except EUs 20 through 23, 25 through 27, 30 through 35, 66 through 69, 74 through 80, 83 through 93, 99, 114, 209, 210, 213, 214, 217, 218, 223A, 240, 248 through 252, 255 through 265, 269 through 272, 274, 275, 278 through 280, 284 through 296, 312 through 317, and except as noted below:

a. EUs 16, 17, and 107 through 109, may have capped or horizontal releases; and

b. This condition does not preclude the use of flapper valve rain covers, or other similar designs, that do not hinder the vertical momentum of the exhaust plume.

12.3 Confirm in the first operating report required under Condition 45 that would be due after the installation of each EU that the exhaust stacks for the EUs listed in Table 1 through Table 5 comply with Conditions 12.2 and 12.4.

Stack Heights

12.4 Construct and maintain the exhaust stacks for the EUs listed in Table 6 with release points above the gravel pad surface that equal or exceed the height indicated in Table 6, except for EUs 51, 56, 57, 62, and 65, during drill rig mobilization and demobilization[2] to and from the Central Pad.

[2] Drill rig mobilization consists of moving the rig to the Central Pad and "drill rig up", which consists of placing and assembling the various pieces of equipment that make up the drill rig. De-mobilization is characterized as the reverse process.

Table 6: Required Stack Heights

EU ID	Description of Equipment	Minimum Stack Height (m)
1 – 2, 5 – 6	Drill Rig Boilers Nos. 1 and 2, and Drill Rig Support Boilers Nos. 1 and 2	12.5
18 – 19	Bulk Tank Storage Area Generator Engines Nos. 1 – 2	10.7
47 – 50	Drill Rig Generator Engines Nos. 1 – 4	18.0
51	Sub-base Cold Start Engine	13.1
56 – 57	Reserve Mud Pit Aux Engine Nos. 1 and 2	15.2
58 – 61	Drill Rig Support Generator Engine Nos. 5 – 8	18.0
62	Auxiliary Motor Complex Cold Start Generator Engine	11.6
65	Main Motor Complex Cold Start Generator Engine	11.6
101 – 104	Solar 70 Taurus Turbines	27.4
105	Permanent Waste Incinerator	14.3
110 – 111	Fine Water Mist Pump Engines Nos. 1 and 2	16.6
112 – 113	High Pressure and Low Pressure Flares	36.6

12.5 Provide the results of a survey for each of the exhaust stacks of EUs listed in Table 6, along with a photograph and comparison of the measured and required heights above the gravel pad, no later than the second operating report required under Condition 45 that would be due after installation of the exhaust stack.

13. To protect the annually averaged, 24-hour, three-hour, and one-hour SO_2 ambient standards, the Permittee shall comply with Conditions 29 and 30. Monitor, record, and report for compliance by complying with Conditions 29.1 through 29.3 and Conditions 30.1 through 30.3.

Limits to Protect the Annual NO_2, SO_2, PM-2.5; 24-hour SO_2, PM-10, PM-2.5; 3-hour SO_2 and 1-hour SO_2 Standards

14. The Permittee shall not operate the following list of equipment as described below:

14.1 any of EUs 71, 71A, 72, 72A, 73, 81, 81A, 82, 82A, 94, and 301 through 311 during any time that the drill rig is located at the disposal injection well.

14.2 EU 114 outside of the airstrip.

14.3 any of EUs 56, 57, 63 and 64 that do not meet the emissions standards for EPA Tier 2 engines.

14.4 any of EUs 51 through 53, 62, 65,72, 72A, 73, 82, 82A, 94, 97, and 98 that do not meet the emissions standards for EPA Tier 3 engines.

14.5 EUs 18 and 19 that do not meet the emissions standards for EPA Tier 4i engines.

14.6 any of EUs 71, 71A, 203 through 208, 203A, 204A, 206A, 207A, and 223 through 227 that do not meet the emissions standards for EPA Tier 4f engines.

14.7 EUs 110 and 111 that do not meet the 40 C.F.R. 60 Subpart IIII emission standards for model year 2009 or later emergency fire pump engines.

Monitor, record, and report as follows:

14.8 Record if any of the EUs listed in Condition 14.1 operate when the drill rig is located at the disposal injection well.

14.9 Record the location of EU 114 when it is operating.

14.10 Report in the operating report required under Condition 45, for each month covered in the report:

a. a statement that none of the equipment listed in Condition 14.1 operated anytime that the drill rig was located at the disposable injection well; and

b. a statement that EU 114 did not operate outside the airstrip.

14.11 Report as excess emissions and permit deviation as required under Condition 44, if any of Conditions 14.1 through 14.7 were not met.

14.12 Maintain engine certifications, performance test results, manufacturer data, or control device vendor data onsite that shows that the EUs comply with the corresponding Tier levels and emission standards in Conditions 14.3 through 14.7. Make the certifications, test results, or data available to Department personnel on request. The records may be kept in electronic format.

Limits to Protect the 24-hour PM-2.5 Standard

15. The Permittee shall not operate the following list of equipment as described below:

15.1 any of EUs 51 through 53, 56, 57, and 62 through 65 concurrently with any of EUs 301 through 311.

15.2 any of EUs 51 through 53, 56, 57, and 62 through 65 concurrently with any of EUs 47 through 50 and 58 through 61, except for short periods of load shifting during EU startup and shutdown that are less than one-hour.

15.3 EUs 110 and 111, for more than one hour combined, per 24-hour calendar day, when any of EUs 301 through 311 are operating.

Monitor, record, and report as follows:

15.4 Record the date and EU numbers, each time that any of EUs 51 through 53, 56, 57, and 62 through 65 operate concurrently with any of EUs 301 through 311.

15.5 Record the times of startup and shutdown (day and time) for each of EUs 51 through 53, 56, 57, and 62 through 65, when operating any of EUs 47 through 50 and 58 through 61.

15.6 Record the times of startup and shutdown (day and time) for each of EUs 110 and 111, when operating any of EUs 301 through 311.

15.7 Report in the operating report required under Condition 45, for each month covered in the report:

a. a statement that none of EUs 51 through 53, 56, 57, and 62 through 65 operated concurrently with any of EUs 301 through 311;

b. the highest number of minutes that any of EUs 51 through 53, 56, 57, and 62 through 65 operated concurrently with any of EUs 47 through 50 and 58 through 61, during periods of load shifting during EU startup and shutdown; and

c. the highest combined daily number of minutes that EUs 110 and 111 operated concurrently with any of EUs 301 through 311, using the records obtained in Condition 15.6.

15.8 Report as excess emissions and permit deviation as required under Condition 44:

a. if any of EUs 51 through 53, 56, 57, and 62 through 65 operated concurrently with any of EUs 301 through 311;

b. if any of EUs 51 through 53, 56, 57, and 62 through 65 operated concurrently with any of EUs 47 through 50 and 58 through 61 during any time other than short periods of load shifting during EU startup and shutdown;

c. if any of EUs 51 through 53, 56, 57, and 62 through 65 operated concurrently with any of EUs 47 through 50 and 58 through 61 for one hour or more during periods of load shifting during EU startup and shutdown; and

d. whenever the combined operating hours of EUs 110 and 111 exceed the limit in Condition 15.3.

16. The Permittee shall limit the fuel consumption in EUs 301 through 311 as follows:

16.1 301 through 303, combined, to no more than 4,028 gallons per calendar day;

16.2 304 through 307, combined, to no more than 2,044 gallons per calendar day;

16.3 308 and 309, combined, to no more than 1,022 gallons per calendar day;

16.4 310 to no more than 630 gallons per calendar day; and

16.5 311 to no more than 319 gallons per calendar day.

Monitor, record, and report as follows:

16.6 Install, maintain, and operate totaling fuel flow meters that are accurate to within ± five-percent, or implement an equivalant method that the Department has approved in writing, on EUs 301 through 311.

16.7 Record, for each of the EUs listed in Conditions 16.1 through 16.5:

a. the respective total amount of liquid fuel fired during each calendar day that the EU operates; and

b. the combined fuel consumption totals for the EU sets identified in Conditions 16.1 through 16.5, using the records obtained in Condition 16.7a.

16.8 Report in the operating report required under Condition 45, for each month covered in the report, the highest daily fuel consumption totals recorded in Condition 16.7b.

16.9 Report as excess emissions and permit deviation as required under Condition 44 if any of the fuel consumption totals recorded under Condition 16.7, exceed any of the limits in Conditions 16.1 through 16.5.

Limits to Protect the 24-hour SO_2, PM-10, and PM-2.5, 3-hour SO_2, and 1-hour SO_2 Standards

17. The Permittee shall not operate the following EUs concurrently, except for periods of load shifting during startup and shutdown:

    17.1 71 and 71A;

    17.2 72 and 72A;

    17.3 73 and 94;

    17.4 82 and 82A; and

    17.5 105 and 246.

    Monitor, record, and report as follows:

    17.6 Record the startup and shutdown (day and time) of each EU listed in Conditions 17.1 through 17.5.

    17.7 Report in the operating report required under Condition 45, for each month covered in the report, that the EUs in each equipment pair listed in Conditions 17.1 through 17.5 were not operated concurrently.

    17.8 Report as excess emissions and permit deviation, as described in Condition 44, if any of the pairs of EUs listed in Conditions 17.1 through 17.5 operated concurrently.

Limits to Protect the Annual NO_2, SO_2, and PM-2.5 Standards

18. The Permittee shall limit the combined hours of operation out of SoLoNOx mode[3] per 12 consecutive month period as follows:

    18.1 EUs 101, 102, 103, and 104 to no more than 500 hours when burning fuel gas; and

    18.2 EUs 103 and 104 to no more than 350 hours when burning ULSD fuel.

    Monitor, record, and report as follows:

    18.3 Monitor and record monthly the number of hours,

    a. EUs 101 through 104 operated out of SoLoNOx mode when firing fuel gas; and

    b. EUs 103 and 104 operated out of SoLoNOx mode when firing ULSD.

    18.4 Calculate and record, monthly, the combined hours of operation out of SoLoNOx mode for the previous 12 consecutive month period for:

    a. EUs 101 through 104 when firing fuel gas; and

    b. EUs 103 and 104 when firing ULSD.

[3] The turbines operate in SoLoNOx mode from 100 to 50 percent load, when firing fuel gas; and from 100 to 65 percent load, when firing ULSD. The SoLoNOx disable load is 45 percent for fuel gas and 60 percent for ULSD.

18.5 Report in the operating report required under Condition 45, for each month covered in the report, the combined hours of operation for each 12 consecutive month period for:

a. EUs 101 through 104 out of SoLoNOx mode when firing fuel gas; and

b. EUs 103 and 104 out of SoLoNOx mode when firing ULSD.

18.6 Report as excess emissions and permit deviation, as described in Condition 44, whenever the combined operating hours of EUs 101 through 104, out of SoLoNOx mode, exceed any of the limits in Condition 18.1 or 18.2.

19. The Permittee shall limit the combined hours of operation of EUs 103 and 104 in SoLoNOx mode when burning ULSD to no more than 4,000 hours[4] per 12 consecutive month period.

Monitor, record, and report as follows:

19.1 Monitor and record, monthly, the combined hours of operation of EUs 103 and 104 in SoLoNOx mode when firing ULSD.

19.2 Calculate and record, monthly, the hours of operation of EUs 103 and 104 in SoLoNOx mode when firing ULSD during the previous 12 consecutive month period.

19.3 Report in the operating report required in Condition 45 for each month covered in the report, the total hours of operation EUs 103 and 104 in SoLoNOx mode when firing ULSD for the previous 12 consecutive month period.

19.4 Report as excess emissions and permit deviation as described in Condition 44 whenever the hours of operation of EUs 103 and 104 in SoLoNOx mode when burning ULSD in any 12 consecutive month period, exceed the limit in Condition 19.

20. The Permittee shall limit the combined operation of the following EU pairs to no more than 8,760 hours in any 12 consecutive month period:

20.1 71 and 71A;

20.2 72 and 72A;

20.3 73 and 94;

20.4 82 and 82A;

20.5 105 and 246; and

Monitor, record, and report as described in Conditions 17.6 through 17.8, or as follows:

20.6 Monitor and record, monthly, the number of hours of operation for each of EUs listed in Conditions 20.1 through 20.5.

[4] The hours of operation of EUs 103 and 104 when firing ULSD in SoLoNOx mode during federally required performance testing do not count towards the 4,000 hours per 12 consecutive month period limit.

20.7 Calculate and record, monthly, the combined hours of operation of each pair of EUs listed in Conditions 20.1 through 20.5.

20.8 Calculate and record, monthly, the combined hours of operation for each pair of EUs during the previous 12 consecutive month period.

20.9 Report in the operating report required in Condition 45 for each month covered in the report, the combined hours of operation for each pair of EUs listed in Conditions 20.1 through 20.5 during the previous 12 consecutive month period.

20.10 Report as excess emissions as described in Condition 44 whenever the combined hours of operation for each pair of EUs listed in Conditions 20.1 through 20.5 exceeded the respective limits.

Ambient PM-10 Monitoring

21. The Permittee shall establish ambient PM-10 monitoring to further confirm compliance with the 24-hour PM-10 ambient air quality standard as follows:

21.1 Within 180 days of permit issuance, submit for Department approval a proposed location within the Point Thomson field for the PM-10 monitoring station.

a. The submittal shall include a scaled site map(s) that shows the proposed location for the monitoring station along with a written description of the Permittee's rationale for proposing this site.

b. The Permittee may propose a combined monitoring effort with any post-construction ambient PM-10 monitoring effort that may be required under a minor permit for their Point Thomson West Pad stationary source, if the Permittee believes that a single location could be used to fulfill the monitoring objectives of both permits.

c. Provide a copy of the proposed location specified in Condition 21.1a to the Permits Intake Clerk in the Department's Anchorage office.

21.2 Within 180 days of permit issuance, submit for Department approval a Quality Assurance Project Plan (QAPP) for the ambient PM-10 monitoring effort. The QAPP shall:

a. propose a timeline for initiating the monitoring effort, and

b. describe the equipment and procedures that the Permittee intends to use in order to collect at least 12-months of data that complies with both 18 AAC 50.215(a) and the quality assurance requirements of EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)* (EPA-450/4-87-007).

21.3 Install and operate the ambient PM-10 monitoring station in accordance with the approved QAPP. Collect at least 12 continuous months of PSD-quality data within 24-months of beginning the monitoring effort.

21.4 Submit a monitoring report for Department review and approval within 120 days of obtaining 12-months of PSD-quality data.

Section 5 ORLs to Avoid Classification under 40 CFR 52.21(b)(23)(i)

PSD Avoidance Limits for NOx:

22. The Permittee shall limit the combined operation of the following sets of EUs to no more than 8,760 hours per 12 consecutive month period.

    22.1 EU 71 and EU 71A;

    22.2 EU 72 and EU 72A;

    22.3 EU 82 and EU 82A; and

    22.4 EU 105 and EU 246.

    Monitor, record, and report as follows:

    22.5 Monitor, record, and report as described in Conditions 17.6 through 17.8; or Conditions 20.6 through 20.10.

23. The Permittee shall limit the combined hours of operation of EUs 107 through 109 to no more than 1,500 hours per 12 consecutive month period.

    Monitor, record, and report as follows:

    23.1 Record the startup and shutdown (day and time) of EUs 107 through 109;

    23.2 Calculate and record monthly, the total number of hours of operation for EUs 107 through 109;

    23.3 Calculate and record, monthly, the total number of hours that EUs 107 through 109 operated for the previous 12 consecutive month period;

    23.4 Report in the operating report required in Condition 45 for each month covered in the operating report the total combined hours that EUs 107 through 109 operated for the previous 12 consecutive month period; and

    23.5 Report as excess emissions and permit deviation as described in Condition 44 whenever the combined operating hours for EUs 107 through 109, in any 12 consecutive month period, exceed the limit in Condition 23.

24. The Permittee shall limit the hours of operation of EU 114 to no more than 500 hours per 12 consecutive month period.

    Monitor, record, and report as follows:

    24.1 Calculate and record, monthly, the total number of hours of operation for EU 114;

    24.2 Calculate and record, monthly, the total number of hours of operation for EU 114 for the previous 12 consecutive month period;

    24.3 Report in the operating report required in Condition 45 for each month covered in the operating report the total number of operation for EU 114 for the previous 12 consecutive month period; and

24.4 Report as excess emissions and permit deviation as described in Condition 44 whenever the hours of operation for EU 114, in any 12 consecutive month period, exceed the limit in Condition 24.

25. The Permittee shall limit the total NOx emissions from EUs 101 through 104, 1 through 6, 16, 17, 81, and 81A, combined, to no more than 168 tons per 12 consecutive month period.

Monitor, record, and report as follows:

25.1 Install, maintain, and operate a totaling fuel flow meter(s), accurate to within ± 5 percent, or record the monthly hours of operation (startup and shutdown dates and times) and calculate the fuel fired based on the manufacturer's maximum fuel consumption or another Department approved method; monitor and record, monthly, the amount of fuel fired in each of EUs 1 through 6, 16, 17, 81, and 81A;

25.2 Calculate and record, monthly, the total NOx emissions from EUs 1 through 6, 16, 17, 81, and 81A using the monthly fuel consumption records from Condition 25.1 and the appropriate NOx emission factor from Table 7;

25.3 Monitor and record monthly, the number of hours EUs 101 through 104 operated out of SoLoNOx mode when firing fuel gas as required by Condition 18.3;

25.4 Monitor and record monthly, the number of hours EUs 103 and 104 operated out of SoLoNOx mode when firing ULSD as required in Condition 18.3b

25.5 Monitor and record monthly, the number of hours EUs 101 and 102 operated in SoLoNOx mode;

25.6 Monitor and record monthly, the number of hours EUs 103 and 104 operated in SoLoNOx mode when firing fuel gas;

25.7 Monitor and record monthly, the number of hours EUs 103 and 104 operated in SoLoNOx mode when firing ULSD, as required in Condition 19.1;

25.8 Calculate and record, monthly, the total NOx emissions from EUs 101 through 104 using the information recorded under Conditions 25.3 through 25.7 and the appropriate NOx emission factors from Table 7;

25.9 Calculate and record the combined NOx emissions from the EUs listed in Condition 25, by the end of each calendar month for the previous 12 consecutive month period;

25.10 Report in the operating report required in Condition 45, for each month covered in the operating report, the 12 consecutive month total NOx emissions as recorded under Condition 25.9; and

25.11 Report as excess emissions and permit deviation, as described in Condition 44 whenever the limit in Condition 25 is exceeded.

Table 7: NOx Emission Factors for EUs 1 through 6, 16, 17, 81, 81A, and 101 through 104

EUs	Fuel	Emission Factor Source	Emission Factor
101 and 102	Fuel Gas in SoLoNOx mode	Vendor Data	5.09 lb/hr
101 through 104	Fuel Gas out of SoLoNOx mode	Vendor Data	9.4 lb/hr
103 and 104	Fuel Gas in SoLoNOx mode	Vendor Data	8.49 lb/hr
103 and 104	ULSD in SoLoNOx mode	Vendor Data	31.5 lb/hr
103 and 104	ULSD out of SoLoNOx mode	Vendor Data	26.4 lb/hr
1, 3, and 4	ULSD	Vendor Data	0.016 lb/gal
2, 5, and 6	ULSD	Vendor Data	0.017 lb/gal
16, 17, 81, and 81A	ULSD	AP-42, Table 1.3-1	0.02 lb/gal

26. The inlet air temperature for each of EUs 101 through 104 shall be 0°F or greater at all times, except during a cold startup of the facility where one turbine will be operated.

    26.1 Monitor and record the inlet air temperature hourly;

    26.2 Report as excess emissions and permit deviation, as required under Condition 44, whenever the inlet air temperature falls below 0°F.

27. Within the first 12 months of operation of the turbines, the Permittee shall conduct a source test in accordance with Section 8 of this permit to verify the turbine NOx emission rates listed in Table 7;

    27.1 For EUs 101 and 102, conduct the tests on either EU 101 or EU 102 for at least three loads representative of the normal operating range of the EU:

    a. in SoLoNOx mode; and

    b. out of SoLoNOx mode (the hours out of SoLoNOx mode for performance testing do not count towards the operating limit of Condition 18.1).

    27.2 For EU 103 and 104, conduct the tests on either EU 103 or EU 104 for at least three loads representative of the normal operating range of the EU for the following operating modes when burning each fuel type:

    a. in SoLoNOx mode, (the hours burning ULSD for performance testing do not count towards the operating limit of Condition 19); and

    b. out of SoLoNOx mode (the hours out of SoLoNOx mode for performance testing do not count towards the operating limit of Condition 18.2).

    27.3 Report as excess emissions as described in Condition 44 if any of the emission rates determined in the source tests required by Condition 26 are higher than the

emission rate for the turbines in Table 7 and the higher emission rates result in total NOx emissions that exceed the limit in Condition 25.

PSD Avoidance Limits for CO:

28. The Permittee shall monitor and record the daily average temperatures at the outlet of the oxidation catalysts associated with the turbines. Except for a commissioning period of 60 days after achieving the maximum production rate to not exceed 180 days for each turbine, EUs 101 through 104, or during any subsequent cold start of the gas cycling process, the Permittee shall maintain the temperature at the outlet of the catalytic bed between 750^{o}F and 1,100^{o}F while operating in SoLoNOx mode and between 450^{o}F and 1,100^{o}F while operating out of SoLoNOx mode; or temperatures established during compliance source tests.

    28.1 Report in the operating report required in Condition 45 for each month covered in the operating report the daily average outlet temperature of the catalytic bed.

    28.2 Report as excess emissions as described in Condition 44 whenever the daily average outlet temperature of the catalytic bed is outside the limits specified in Condition 28, except as provided for during initial commissioning and cold start of the gas cycling process.

Section 6 ORLs to Avoid Classification under 18 AAC 50.502(c)(1)

Minor Permitting Avoidance Limits for SO_2:

29. **Diesel Fuel Sulfur Content Limits**: The Permittee shall burn only ULSD in all diesel-fired EUs listed in Table 1, Table 3, and Table 4. Monitor, record, and report as follows:

    29.1 Obtain and keep certified receipts from fuel suppliers that confirm diesel fuel delivered to the stationary source meets the specifications of ULSD.

    29.2 Report in the operating report required by Condition 45 that diesel fuel delivered to the stationary source during the reporting period is ULSD.

    29.3 Report in the excess emission report required by Condition 44 if any diesel fuel delivered to the stationary source during the reporting period did not meet the ULSD specifications.

30. **Fuel Gas Hydrogen Sulfide (H_2S) Content Limits**: The Permittee shall limit the H_2S content of the fuel gas burned in the turbines (EUs 101 through 104) and high pressure flare (EU 112), except for pilot and purge gas, to no more than 125 parts per million by volume (ppmv) and limit the H_2S content of all fuel gas burned in the low pressure flare (EU 113) and pilot and purge in the higher pressure flare (EU 112) to no more than 300 ppmv. Monitor, record and report as follows:

    30.1 Measure the H_2S content of the fuel gas burned in the turbines (EUs 101 through 104), high pressure flare (EU 112), and in the low pressure flare (EU 113) at least once a calendar month using ASTM D 4810-88, D 4913-89, or Gas Producers Association 2377-86, or an alternative analytical method approved by the Department.

    30.2 Keep records of the H_2S content measured under Condition 30.1 for five years. The records may be kept in electronic format.

    30.3 Report in the operating report required by Condition 45 the H_2S content of the fuel gas measured under Condition 30.1.

    30.4 Report in the excess emission report required by Condition 44 if the fuel gas H_2S content measured under Condition 30.1 exceeds the limits in Condition 30 at any time.

Section 7 Limits to Avoid Regulation Under NSPS Subpart Ec

31. **Composition of Wastes Burned in Incinerators**: Limit the amount of hospital wastes, medical wastes, and infectious wastes combusted in each incinerator (EUs 105 and 246), to less than 10 percent by weight of the wastes and fuels combusted on a calendar quarter basis.

    Monitor, record, and report as follows:

    31.1 Keep records on a calendar quarter basis of the weight of hospital waste, medical waste, infectious waste, and all other fuels and wastes combusted in each incinerator.

    31.2 At the end each of calendar quarter, calculate for that calendar quarter and record the percent by weight of hospital wastes, medical wastes, and infectious wastes in the total amount of material combusted in each incinerator.

    31.3 Report in the operating report required by Condition 45, the percent of hospital wastes, medical wastes, and infectious wastes in the total wastes calculated in Condition 31.2 for each calendar quarter in the reporting period.

Section 8 General Source Testing and Monitoring Requirements

32. **Operation Conditions**: Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing:

    32.1 At a point or points that characterize the actual discharge into the ambient air; and

    32.2 At the maximum rated burning or operating capacity of the source or another rate determined by the Department to characterize the actual discharge into the ambient air.

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

    33.1 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) in accordance with the methods and procedures specified in 40 CFR 60.

    33.2 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) in accordance with the methods and procedures specified in 40 CFR 61.

    33.3 Conduct source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) in accordance with the methods and procedures specified in 40 CFR 63.

    33.4 Conduct source testing for the reduction in visibility through the exhaust effluent in accordance with Method 9. Visibility source testing is exempt from the requirements listed in Conditions 36 through 39.

    33.5 Conduct source testing for emissions of PM, sulfur compounds, CO, lead, VOCs, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases in accordance with the methods and procedures specified in 40 CFR 60, Appendix A.

    33.6 Conduct source testing for emissions of PM-2.5 in accordance with EPA Method 202 or another method approved by the Department.

    33.7 Source testing for emissions of any air pollutant may be determined using an alternative method approved by the Department in accordance with Method 301 in Appendix A to 40 CFR 60.

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

35. **Additional Source Test:** 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.

36. **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.

37. **Test Plans**: 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 no later than 60 days after receiving a request under Condition 35 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 done without resubmitting the plan.

38. **Test Notification**: At least 10 days before conducting a source test, the Permittee shall give the Department written notice of the date and time the source test will begin.

39. **Test Reports.** 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 46. If requested in writing by the Department, the Permittee must provide preliminary results in a shorter period of time specified by the Department.

40. **NOx Testing Requirements:** When conducting a NOx source test, the Permittee shall report both the NOx concentration (measured as NO_2) and the actual NO_2 concentration.

Section 9 General Recordkeeping, Reporting, and Compliance Requirements

41. **Good Air Pollution Control Practice**: The Permittee shall do the following for the boilers and heaters (EUs 1 through 8, 7A, 8A, 14, 15, 25 through 27, 30 through 35, 66, 67, 78 through 80, 89 through 93 and 96), incinerator (EU 246) and flares (EUs 112 and 113):

    41.1 perform regular maintenance according to the manufacturer's recommendations or the operator's operations and maintenance procedures;

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

    41.3 keep a copy of either the manufacturer's or the operator's maintenance procedures. The records may be kept in electronic format.

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

43. **Monitoring, Recordkeeping, and Reporting (MR&Rs) for Air Pollution Prohibited**:

    43.1 If emissions present a potential threat to human health or safety, the Permittee shall report such emissions according to Condition 44.

    43.2 As soon as practicable, after becoming aware of a complaint that is attributable to emissions from the facility, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 42.

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

        a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the facility have caused or are causing a violation of Condition 42; or

        b. the Department notifies the Permittee that it has found a violation of Condition 42.

    43.4 The Permittee shall keep records of the following:

        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 42; and

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

43.5 With each operating report under Condition 45, the Permittee shall include a brief summary report which must include the following:

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.

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

44. **Excess Emissions and Permit Deviation Reports**

44.1 Except as provided in Condition 42, the Permittee shall report all emissions or operations that exceed or deviate from the requirements of this permit as follows:

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

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

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

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

c. report all other excess emissions and permit deviations:

(i) within 30 days after the end of the month in which the emissions or deviation occurs, except as provided in Condition 44.1c(ii); and

(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 44.1c(i).

44.2 When reporting excess emissions or permit deviations the Permittee must report; using either the Department's on-line form, which can be found at http://www.dec.state.ak.us/air/ap/site.htm or https://myalaska.state.ak.us/deca/air/airtoolsweb/, or if the Permittee prefers, the form contained in Attachment 2 of this permit. The Permittee must provide all information called for by the form that is used.

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

45. **Operating Reports:** The Permittee shall submit to the Department an original and one copy of an operating report by August 1st for the period January 1st to June 30th of the current year and by February 1st for the period July 1st to December 31st of the previous year.

45.1 The operating report must include all information required to be in operating reports by other conditions of this permit. The Permittee may upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Departmental submission requirements.

45.2 If excess emissions or permit deviations that occurred during the reporting period are not reported under Condition 45.1, 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 44 the Permittee shall cite the date or dates of those reports.

46. **Certification**. The Permittee shall certify any permit application, report, affirmation, or other compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.” Excess emissions 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.

47. **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: Compli**i**ance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 46.

Section 10 Standard Permit Conditions

48. **Compliance Requirements**: Compliance with permit terms and conditions is considered to be in compliance with those requirements that are

    48.1 included and specifically identified in the permit; or

    48.2 determined in writing in the permit to be inapplicable.

49. **Grounds for Action**: The Permittee must comply with each permit term and condition. Noncompliance with a permit term or condition constitutes a violation of AS 46.14, 18 AAC 50, and the Clean Air Act (except for those terms or conditions designated in the permit as not federally enforceable), and is grounds for

    49.1 an enforcement action;

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

    49.3 denial of an operating permit application.

50. **Non-Defense for Enforcement Action**: 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.

51. **Access:** 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:

    51.1 enter upon the premises where an emissions unit subject to this permit is located or where records required by the permit are kept;

    51.2 have access to and copy any records required by this permit;

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

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

52. **Independence of Permit Terms**: 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.

53. **Changes in Permit**: The permit may be modified, reopened, revoked and reissued, or terminated for cause. A request by the Permittee for modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

54. **Property Rights**: The permit does not convey any property rights of any sort, nor any exclusive privilege.

55. **Information Requests**: The Permittee shall furnish to the Department, within a reasonable time, any information that 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.

Section 11 Owner Requested Condition

56. **Commencing Operations**: For purposes of Title V permitting, commencing operation shall occur on the first day the Permittee starts up any of the production EUs listed in Table 3, except for Emission Units 105 and 114.

    56.1 The Permittee shall notify the Department no later than 30 days after the initial startup of the first production EU listed in Table 3, except EUs 105 and 114.

Section 12 Permit Documentation

Date	*Documentation Details*
July 9, 2011	Department receives original application
August 16, 2011	Department receives addenda to the application
September 1, 2011	Department and ExxonMobil discuss permitting schedule at Anchorage meeting
September 23, 2011	Department determines application to be complete
November 1, 2011	Department receives addenda related to modeling analysis
January 10, 2012	Department receives addenda related to modeling analysis
February 6, 2012	Department and ExxonMobil discuss permitting schedule at Juneau meeting
March 7, 2012	Department requests and receives clarification of sulfur content of fuel gas
March 20, 2012	Department receives addenda related to modeling analysis
April 4, 2012	Department and ExxonMobil discuss permitting schedule by teleconference. Department provided a draft preliminary permit and technical analysis report for ExxonMobil to review
May 7, 2012	On Department's request, ExxonMobil provides the hourly rating of incinerators
May 8, 2012	ExxonMobil submits revised modeling to address concerns raised by the Department
June 12, 2012	The Department issues preliminary permit and technical analysis report for public comment
July 12, 2012	The Department receives Exxon Mobil Corporation comments on the preliminary permit
August 20, 2012	The Department issues PSD permit AQ1201CPT01
November 2, 2012	ExxonMobil submits application to revise PSD permit AQ1201CPT01
December 13, 2012	ExxonMobil submits addenda to the application
March 15, 2013	Department receives addenda related to modeling analysis
April 19, 2013	Department issues preliminary permit and technical analysis report for public comment
May 20, 2013	The Department receives Exxon Mobil Corporation comments on the preliminary permit
June 12, 2013	The Department issues PSD permit AQ1201CPT02
December 6, 2013	Department and ExxonMobil discuss application and permitting schedule at Juneau meeting

December 13, 2013	ExxonMobil submits application to revise PSD permit AQ1201CPT02
January 29, 2014	Department and ExxonMobil discuss permitting schedule by teleconference
March 5, 2014	Department and ExxonMobil discuss modeling analysis and permitting schedule
April 2, 2014	Department and ExxonMobil discuss permitting schedule
May 1, 2014	Department and ExxonMobil discuss permitting schedule by teleconference.
May 28, 2014	ExxonMobil provides modeling summary
June 24, 2014	Department issues preliminary permit and technical analysis report for public comment
July 24, 2014	The Department receives Exxon Mobil Corporation comments on the preliminary permit
August 7, 2014	The Department issues PSD permit AQ1201CPT03
September 3, 2014	ExxonMobil submits application to revise PSD permit AQ1201CPT03
December 8, 2014	ExxonMobil submits minor permit application to revise PSD permit AQ1201CPT03
January 14, 2015	The Department issues preliminary permit and technical analysis report for public comment
January 21, 2015	Email from Alan Schuler to Aaron Simpson regarding material errors in AQ1201CPT03
January 23, 2015	The Department revokes AQ1201CPT03 and issues AQ1201CPT03, Revision 1
February 13, 2015	The Department receives Exxon Mobil Corporation comments on the preliminary permit
February 27, 2015	The Department issues minor permit AQ1201MSS03
March 27, 2015	The Department issues minor permit AQ1201MSS03 Revision 1
January 27, 2016	The Department receives application to revise AQ1201MSS03 Revision 1.

Attachment 1 – Visible Emissions Form

VISIBLE EMISSION OBSERVATION FORM[5]

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.
- Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or 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).
- 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.

[5] ExxonMobil received approval from ADEC in an email dated December 16, 2013 to use any report form for EPA reference Method 9 visible emissions observations so long as the form provides all of the information required by the reference method as well as any additional information required by the permit.

- 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.

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

Page No._____

Stationary Source Name	Type of Emission Unit	Observation Date	Start Time	End Time

Sec	0	15	30	45	Comments
Min					
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

Emission Unit Location
City State Zip
Phone # (Key Contact) Stationary Source ID Number
Process Equipment Operating Mode
Control Equipment Operating Mode
Describe Emission Point/Location
Height above ground level Height relative to observer Clinometer Reading
Distance From Observer Start End Direction From Observer Start End
Describe Emissions & Color Start End
Visible Water Vapor Present? If yes, determine approximate distance from the
No Yes stack exit to where the plume was read
Point in Plume at Which Opacity Was Determined
Describe Plume Background Background Color
Start End
Sky Conditions: Start End
Wind Speed Start End Wind Direction From Start End
Ambient Temperature Wet Bulb Temp RH percent
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks

						24					
						25					
						26					
						27					
						28					
						29					
						30					
						Range of Opacity					
						Minimum			Maximum		
I have received a copy of these opacity observations						Print Observer's Name					
Print Name:						Observer's Signature					Date
Signature:											Observer's Affiliation:
Title			Date			Certifying Organization					
						Certified By:				Date	

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

Average Opacity Summary:

Set Number	**Time**			**Opacity**		
	Start	**End**		**Sum**	**Average**	**Comments**

Attachment 2 - ADEC Notification Form[6]

Excess Emissions and Permit Deviation Reporting
State of Alaska Department of Environmental Conservation
Division of Air Quality

Stationary Source Name *Air Quality Permit Number*

_____
Company Name

When did you discover the Excess Emissions/Permit Deviation?
Date: / / Time: :

When did the event/deviation?
Begin: Date: / / Time: : (please use 24hr clock)
End: Date: / / Time: : (please use 24hr 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 conditions complete Section 2 and certify
☐ Deviation 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 ☐ Scheduled Maintenance/Equipment Adjustments
☐ 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.

[6] Revised as of December 6, 2004

(d) Emission unit(s) Involved:
Identify the emission units 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	Emission Unit Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) Type of Incident (please check only one):
☐ Opacity % ☐ Venting (gas/scf) ☐ Control Equipment Down
☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Record Keeping Failure
☐ Marine Vessel Opacity ☐ Failure to monitor/report ☐ Flaring
☐ Other:

(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 one only) (check boxes correspond with sections in permit)
☐ Emission Unit Specific
☐ General Source Test/Monitoring Requirements
☐ Recordkeeping/Reporting/Compliance Certification
☐ Standard Conditions Not Included in Permit
☐ Generally Applicable Requirements
☐ Reporting/Monitoring for Diesel Engines
☐ Insignificant Emission Unit
☐ Stationary Source-Wide
☐ Other Section: (title of section and section # of your permit)

(b) Emission unit(s) Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. List the corresponding Permit condition and the deviation.

EU ID	Emission Unit 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:

1. Fax this form to: 907-451-2187
Or
2. Email to: airreports@dec.state.ak.us
if faxed or emailed,
Or
3. Mail to: ADEC
Air Permits Program
610 University Avenue
Fairbanks, AK 99709-3643
Or
4. Phone notifications: 907-451-5173.
Phone notifications require written follow up report.
Or
5. Submission of information contained in this report can be made electronically at the following website: *(web site is not yet available)*
if submitted online, report must be submitted by an authorized E-Signer for the Stationary Source.

_____ _____
Signature: Date

Attachment 3 - Ambient Air Access Control Plan

Point Thomson Project Central Pad

Introduction

Exxon Mobil Corporation (ExxonMobil) is developing the Point Thomson field located along the Beaufort Sea, on the eastern North Slope of Alaska. The permitted area for the project is located on lands leased from the State of Alaska. Access to Central Pad will be by aircraft, barge, and/or ice roads. The nearest villages to Central Pad are Kaktovik, which is approximately 100 kilometers (km) east and Nuiqsut, which is approximately 180 km west. This plan describes the Public Access Control Plan that will be used to maintain the ambient air quality boundary at the Point Thomson Central Pad.

Site access to Point Thomson is naturally limited due to its remote location and because it will not be connected to other North Slope areas or communities by a permanent road. Some subsistence use of the nearby offshore and onshore area occurs, and local residents may occasionally pass by Point Thomson. ExxonMobil understands the need to provide safe havens during emergencies and for those in need of assistance. Access will be provided in these cases as necessary without compromising site control, safety, or the ambient air quality boundary.

Ambient Air

ExxonMobil is fully committed to meeting the applicable Alaska Ambient Air Quality Standards (AAAQS) and increments at the ambient air quality boundary of the project. The purposes of this plan are to delineate the area to be protected and controlled for occupational health and safety (within the ambient air quality boundary) from the area that is subject to unrestricted, general public access in which the AAAQS and increments are applicable (outside the ambient air quality boundary), and to ensure that measures are in place to restrict public access within the ambient air quality boundary.

EPA defines ambient air as that portion of the atmosphere, external to buildings, to which the general public has access. For the purpose of modeling source emissions, the area to which ExxonMobil controls public access is not ambient air. Therefore, the outside of the pad edges represent the ambient air quality boundary. To maintain the ambient air boundary, and still provide for emergency public access, a public access corridor has been established on the south boundary of the Central Pad (Figure 1). For purposes of air quality modeling and impact assessment, this access corridor has been used as the ambient air quality boundary. Dispersion modeling has been conducted and demonstrates modeled compliance with all applicable AAAQS and increments at all points on and outside of the ambient air quality boundary.

Access Control

ExxonMobil security procedures will control site access and provide a method for monitoring personnel movements. An adequate number of guards will be provided to ensure 24-hour security coverage 7 days a week. Visitors to the site shall receive a site specific safety, security, environmental and health orientation briefing conducted as soon as possible after arriving at the site. This briefing will include review of ambient air issues.

Public access to Central Pad will be controlled by a security office. The land within the ambient air quality boundary encompasses Central Pad. Access to Central Pad is from a road which connects Central Pad to the airstrip. The security office is located on the road at the entrance to Central Pad. The Central Pad berm is approximately 5 feet in height, which creates a physical barrier.

During winter when access to the facilities may be available by ice road, security guards will be placed at the Endicott entrance of the ice road to control access. Security plans include controlling direct site access to the roads, pads, and airstrip; access to ice roads; and the helipad and airstrip.

Operations and maintenance personnel will be on site during all active operating periods to maintain security. A security system will be installed to monitor select areas on Central Pad. Onsite personnel will be responsible for controlling direct site access. Visitors wishing to access the site: should have approval prior to arrival, will be required to sign in upon arrival, and will be required to attend a safety briefing.

The most likely people requiring assistance will be from the village of Kaktovik. ExxonMobil maintains onsite subsistence representatives from Kaktovik, who will be trained in the need to maintain an ambient air quality boundary. In addition, the Point Thomson Project employs a Kaktovik Village Liaison, who is based in Kaktovik. The Liaison will work with the community of Kaktovik to understand residents' travel plans and will notify Central Pad Subsistence Representatives and Security when subsistence users or snow machine users plan to be in the Point Thomson Project area. In addition, the issue will be reviewed with the City of Kaktovik's Oil and Gas Liaison.

Figure 1 – Public Access Corridor Established on the South Boundary of the Central Pad