DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0290TVP02 Issue Date: Public Comment - November 18, 2013
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, **Teck Alaska Incorporated**, for the operation of the **Red Dog Mine**.

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 May 8, 2013 Register 206. All Federal regulation citations are from those sections adopted by reference in this version of regulation in 18 AAC 50.040 unless otherwise specified.

All currently applicable stationary source-specific terms and conditions of Air Quality Control Operating Permit No. AQ0290TVP01, Minor Permit No. AQ0290MSS02, Minor Permit No. AQ0290MSS03, Minor Permit No. AQ0290MSS06 (Rev. 1), and Minor Permit No. AQ0290MSS07 have been incorporated into this permit.

Upon effective date of this permit, Operating Permit No. AQ0290TVP01 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
C.F.R.	Code of Federal Regulations
The Act	Clean Air Act
CO	Carbon Monoxide
CSB	Concentrate Storage Building
dscf	Dry standard cubic foot
EPA	US Environmental Protection Agency
EU	Emission Unit
GHG	Greenhouse Gas
gr./dscf	grain per dry standard cubic foot (1 pound = 7000 grains)
GP3	General Permit - Asphalt Permit
GPH	gallons per hour
HAPs	Hazardous Air Pollutants[*HAPs* as defined in AS 46.14.990]
Hp	Horsepower
H_2S	Hydrogen Sulfide
ICE	Internal Combustion Engine
ID	Emission Unit Identification Number
kPa	kiloPascals
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology[MACT as defined in 40 C.F.R. 63]
MMBtu/hr	Million British thermal units per hour
MMSCF	Million standard cubic feet
MR&R	Monitoring, Recordkeeping, and Reporting
NAICS	North American Industrial Classification System
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants*[NESHAPs* as contained in 40 C.F.R. 61 and 63]
NO_X	Nitrogen Oxides
NSPS	Federal New Source Performance Standards*[NSPS* as contained in 40 C.F.R. 60]
O & M	Operation and Maintenance
O_2	Oxygen
PAL	Plantwide Applicability Limitation
PM_{10}	Particulate Matter less than or equal to a nominal ten microns in diameter
ppm	Parts per million
ppmv, ppmvd	Parts per million by volume on a dry basis
psia	Pounds per Square Inch (absolute)
PRC	Portable Rock Crusher
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RICE	Reciprocating Internal Combustion Engine
RM	Reference Method
SIC	Standard Industrial Classification
SO_2	Sulfur dioxide
SCR	Selective Catalytic Reduction
SRU	Soil Remediation Unit
TPH	Tons per hour
TPY	Tons per year
VOC	volatile organic compound*[VOC* as defined in 40 C.F.R. 51.100(s)]
VOL	volatile organic liquid*[VOL* as defined in 40 C.F.R. 60.111b, Subpart Kb]
vol%	volume percent
wt%	weight percent

Section 1. Stationary Source Information

Identification

Permittee:	**Teck Alaska Incorporated** 3105 Lakeshore Dr., Bldg. A, Suite 101 Anchorage, AK 99517
Stationary Source Name:	**Red Dog Mine**
Location:	68˚ 4′ North; 162˚ 50′ West in NW Arctic Borough
Physical Address:	90 miles North of Kotzebue, AK
Owner:	Teck Alaska Incorporated 3105 Lakeshore Dr., Bldg. A, Suite 101 Anchorage, AK 99517
Operator:	Teck Alaska Incorporated 3105 Lakeshore Dr., Bldg. A, Suite 101 Anchorage, AK 99517
Permittee's Responsible Official:	Henri Letient General Manager 3105 Lakeshore Dr., Bldg. A, Suite 101 Anchorage, AK 99517
Designated Agent:	Perkins Coie LLP 1029 W 3rd Ave., Suite 300 Anchorage, AK 99501-1981
Stationary Source and Building Contact:	Chris Menefee or Rebecca Hager 3105 Lakeshore Dr., Bldg A, Suite 101 Anchorage, AK 99517 (907) 754-5138 or (907) 754-5141 Chris.Menefee@teck.com or Rebecca.Hager@teck.com
Fee Contact:	Same as Stationary Source and Building Contact
Permit Contact:	Same as Stationary Source and Building Contact
Process Description SIC Code: NAICS Code:	 1031 - Lead and Zinc Ores 212231 – Lead Ore and Zinc Ore Mining

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

Section 2. Emission Unit Inventory and Description

Emission units listed in Table A have specific monitoring, recordkeeping, or reporting (MR&R) requirements in this permit. Emission unit descriptions and ratings are given for identification purposes only.

Table A - Emission Unit Inventory

EU ID	Type Sequence Number	Emission Unit Description	Rating/Size	Installation or Construction Date
Diesel Generators and Pumps				
MG-1	01-11	Wartsila 16V32 Primary Power #1	5000 kW	1988
MG-2	01-12	Wartsila 16V32 Primary Power #2	5000 kW	1994
MG-3	01-13	Wartsila 16V32 Primary Power #3	5000 kW	1988
MG-4	01-14	Wartsila 16V32 Primary Power #4	5000 kW	1988
MG-5	01-15	Wartsila 16V32 Primary Power #5	5000 kW	1988
MG-6	01-31	Wartsila 16V32 Primary Power #6	5000 kW	1994
MG-7	94-05	Cat 3508TA #1 Supplemental power SC	650 kW	1988
MG-8	94-06	Cat 3508TA #2 Supplemental power SC	650 kW	1988
MG-9	94-07	Cat 3508TA #3 Supplemental power PAC	650 kW	1988
MG-10[(1)]	94-11	Detroit Diesel Bons Creek back up power	275 kW	1998
MG-11	94-28	Cat 3126 Backup Pump for Fire Protection	200 Hp	2003[(3)]
MG-12	94-20	Detroit Diesel Reclaim Barge backup power	55 kW	1989
MG-13	94-34	Cat 3208TA Concrete batch plant power	150 kW	1988
MG-14	94-30	Cat 3406 Portable Generator	250 kW	1986
MG-15	94-31	Cat 3406 Portable Generator	250 kW	1986
MG-16	94-35	Cummins GCTA8.3 portable power	188 kW	1997
MG-17	01-54	Wartsila 16V32 Primary Power #8 w/SCR	5000 kW	2003
MG-18	01-49	Wartsila 16V32 Primary Power # 7	5000 kW	2001
MG-19	94-12	Cat 3406TA Seepage Pond Backup Power	260 kW	1989
MG-20	94-13	Cat 3406B Red Dog Creek Backup Power	250 kW	1989
MG-21	94-18	Cat 3304 Kivalina Backup Power	90 kW	1987
MG-22	94-36	Cummins/Onan Reclaim Barge Power	100 kW	2003
MG-23[(1)]	94-08	Cummins/Onan Portable Generator	30 kW	1989
MG-24[(1)]	94-19	Cummins/Onan Portable Generator	125 kW	1989
MG-25[(1)]	94-25	John Deere Portable Generator	50 kW	1993
MG-26	94-66	Caterpillar/C15 DITA Tailing Sump Emergency Generator (Diesel)	500 kW	2010
Fuel Oil Fired Heaters				
MH-1	14-06	ABCO Standby glycol/water heater	250 bhp/hr (8.4 MMBtu/hr)	1988
MH-2	14-05	ABCO Standby glycol/water heater	250 bhp/hr (8.4 MMBtu/hr)	1988
MH-3	14-17	ABCO Standby glycol/water heater	250 bhp/hr (8.4 MMBtu/hr)	1988
MH-4[(5)]	Various	Source-wide Small Heater Group	7.83 MMBtu/hr	N/A
MH-5[(5)]	14-108	Cleaver-Brooks Emulsion Plant Boiler	1.67 MMBtu/hr	2005
Incinerators				
MI-2	14-01	John-Zink Comptro Incinerator	900 lb/hr	1988
MI-3	14-18	Advanced Combustion Incinerator	625 lb/hr	1996

EU ID	Type Sequence Number	Emission Unit Description	Rating/Size	Installation or Construction Date
Dust Collectors				
MD-1	29-03	Wheelabrator Baghouse 55W825 Primary Jaw Crusher	7,000 ACFM	1995
MD-2[(2)]	29-164	Emtrol Wetscrubber 66W40 #1 Coarse Ore Conveyor A	12,500 ACFM	1991
MD-3[(2)]	29-165	Emtrol Wetscrubber 66W40 #2 Coarse Ore Conveyor B	12,500 ACFM	1991
MD-4	29-02	Mikropul baghouse 49S8-20 Assay Lab, Bucking room	3,700 ACFM	1993
MD-5	29-01	Mikropul baghouse 48N4-B Reagent mix lime room	1,200 ACFM	1993
MD-6	29-560	Wheelabrator baghouse 46WCC Gyratory Crusher	9,000 ACFM	1997
MD-7[(4)]	29-870	Jaw Crusher Dump Pocket Baghouse	34,000 ACFM	2005
MD-8[(4)]	29-873	Gyratory Crusher Dump Pocket Baghouse	37,000 ACFM	2005
MD-9	29-889	Coarse Ore Storage Building Baghouse	50,000 ACFM	2006
MD-10	29-935	Concentrate Storage Building Baghouse	65,000 ACFM	2008
Diesel Fuel Storage Tanks				
MT-1	19-46	Diesel No. 1 & 2 Fuel Storage, Tank No. 1	230,000 gallons	1988
MT-2	19-47	Diesel No. 1 & 2 Fuel Storage, Tank No. 2	230,000 gallons	1988
MT-3	19-70	Diesel No. 1 & 2 Fuel Storage, Tank No. 3	1,200,000 gallons	1997
MT-4	19-171	Diesel No. 1 & 2 Fuel Storage, Tank No. 4	1,140,000 gallons	2001
Portable Rock Crushing Operations				
PRC-1	34-31	Jaw Feeder Adjustable Motor – Construction Equipment Company (CEC) Portable Crusher	250 TPH	2008
PRC-2	34-20	Crusher Jaw 24” x 36” w/52” x 20” Feeder	250 TPH	2007
PRC-3	34-24	Transfer Point (36” jaw crusher discharge to jaw crusher conveyor)	250 TPH	2007
PRC-4	34-22	Transfer Point (36” under jaw crusher discharge to SC300 primary conveyor)	250 TPH	2007
PRC-5	34-18	Transfer Point (36” SC300 primary conveyor to deck screen)	250 TPH	2006
PRC-6	34-21	Three Screen Deck 6’ x 24’	250 TPH	2007
PRC-7	34-19	Crusher Cone, CEC SC300	250 TPH	2007
PRC-8	34-25	Transfer Point (48” under screen discharge, SC300 Auto Cone to SC300 secondary return conveyor)	250 TPH	2007
PRC-9	34-27	Transfer Point (cone crusher return, SC300 secondary return conveyor to SC300 primary return conveyor)	250 TPH	2009
PRC-10	34-17	Transfer Point (20” deck screen conveyor to radial stacker) Serial # J-16891-002	250 TPH	2006
PRC-11	34-26	Transfer Point (30” x 100’ radial stacker to storage pile)	250 TPH	2007
MXG-101[(1)]	94-64	CAT C27 Generator Engine -725 kW Serial # OMJ00292	1,006 Hp	2007

EU ID	Type Sequence Number	Emission Unit Description	Rating/Size	Installation or Construction Date
Fugitive and Miscellaneous				
MF-1		Mill building exhausts and vents	N/A	1988/2001
MF-4(2)	-	Truck loading bay exterior doors and vents of the Concentrate Storage Building	N/A	1988
MF-5(2)	-	Mine roads fugitive dust within the ambient air boundary	Area Source	1985
MF-6(2)	-	Quarry operations fugitives (dust and methanol) within the ambient air boundary	Area Sources	1988
MF-7(2)	-	Stockpiles and exposed areas within the ambient air boundary	Area Sources	1988
MF-8(2)	-	Open burning of wood for disposal and/or fire-fighter training	Area Source	1986
MF-9(2)	-	Fuel for fire-fighter training purposes	Area Source	1989
MC-1	08-103	Concrete Batch Plant feed material fugitive dust	200 cubic yards per day	1996

Notes:

1. EU IDs MG-10, MG-23, MG-24, MG-25, and MXG-101 are nonroad engines. Any other "portable" engine listed in Table A is considered as a stationary emission unit (i.e., the unit is not a nonroad engine irrespective of the description).
2. EU IDs MD-2, MD-3 and MF-4 through MF-9 are not industrial processes.
3. Construction date based on September 3, 2003 letter request for Administrative Revision for installation of an equivalent replacement pump to prior backup firewater pump (CAT 3208, 196 Hp, initially installed 1988).
4. Table 1 (Source Inventory) to Permit AQ0290TVP01 included EU IDs MF-2 (Ore truck unloading station at primary jaw crusher drop box, installed 1988) and MF-3 (Ore truck unloading station at gyratory crusher drop box, installed 1997); however, Permit AQ0290MSS02 approved installation of EU IDs MD-7 and MD-8 as respective particulate emissions controls for MF-2 and MF-3. As such, the identifiers EU IDs MF-2 and MF-3 are not carried-forward from AQ0290TVP01, but are instead replaced with EU IDs MD-7 and MD-8 as the respective emission point identifiers.
5. In AQ0290TVP01 the source group EU ID MH-4 included emission unit 14-108 (i.e., the Emulsion Plant Boiler, 1.67 MMBtu/hour rating, firing Ultra-low Sulfur Diesel (ULSD)) within the MH-4 Source-wide Small Heater Group of insignificant emission units; however, the AQ0290TVP02 permit application requested that EU IDs MH-1 through MH-4 be considered as "significant" emission units and the Department has separately listed the Emulsion Plant Boiler since it is subject to Condition 50. The total heat input rating to the MH-4 source group (i.e., 7.83 MMBtu/hour) does not include the Emulsion Plant Boiler.
6. The activities related to the Shallow, Shale Hosted Natural Gas Exploration Project, authorized under Air Quality Control Minor Permit No. AQ0290MSS05, ended in August 2012. The exploration wells have been closed and the equipment used, SG-1 through 17, have been shipped offsite. The project is permanently closed. This information was reported in the Semi-Annual Facility Operating Report for July to December 2012. AQ0290MSS05 was rescinded by ADEC at the request from the Permittee on August 2, 2013. All SG-designated EU's and corresponding terms and conditions have been removed from AQ0290TVP02.
7. The paving plant project for which the temporary asphalt plant was operated under AQ0290MSS01 was completed and the emission sources EU ID's 1 through 8 were removed from the site. AQ0290MSS01 was rescinded by ADEC at the request of the Permittee on June 14, 2013. All corresponding terms and conditions have been removed from AQ0290TVP02.

[18 AAC 50.326(a)]
[40 C.F.R. 71.5(c)(3)]

Section 3. State Requirements

Visible Emissions Standards

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs MG-1 through MG-9, MG-11 through MG-22, MG-26, MF-1, MC-1, MD-1, MD-4 through MD-10[1], PRC-1 through PRC-11, and MH-1 through MH-4 listed in Table A to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

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

1.1 For EU IDs MG-1 through MG-6, MG-17, MG-18, MC-1, MD-7 through MD-10, and MH-1 through MH-4, monitor, record and report in accordance with Conditions 3 through 5.

1.2 For EU IDs MG-7 through MG-9, MG-11 through MG-16, MG-19 through MG-22, MD-1, and MD-4 through MD-6, as long as the individual emission unit does not exceed the applicable rolling 12-month fuel usage or emissions threshold limits listed in Condition 20 and Table C, monitoring shall consist of an annual statement of compliance with the visible emissions standard based on reasonable inquiry. Otherwise, monitor, record, and report visible emissions in accordance with Conditions 3 through 5 for that emission unit for the remainder of the permit term.

1.3 For EU ID MF-1[2] and MD-7 through MD-10, monitor, record and report in accordance with Condition 43.3c.

1.4 For EU ID MG-26, as long as the emission unit does not exceed the applicable rolling 12-month operating time limit in Condition 27, monitoring shall consist of an annual statement of compliance with the visible emissions standard based on reasonable inquiry. Otherwise, monitor, record, and report visible emissions in accordance with Conditions 3 through 5 for that emission unit for the remainder of the permit term.

1.5 For the portable rock crushing operations (EU IDs PRC-1 through PRC-11), monitor, record and report in accordance with Condition 6.

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

[1] EU ID MD-7 and MD-8 are the respective baghouse emission points for industrial processes MF-2 and MF-3. See footnote 4 to Table A - Emission Unit Inventory.

[2] The Permittee may choose at least two representative vents when monitoring is done by Method 9 observations. The representative vents chosen must be identified and recorded, accordingly.

2. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of EU IDs MI-2 and MI-3 to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

2.1 For EU ID MI-2, monitor, record and report in accordance with Conditions 3 through 5.

2.2 For EU ID MI-3, monitor, record and report in accordance with Conditions 3 through 5 with respect to the BACT opacity limit of Condition 19.3b.

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

Visible Emissions Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Emission Units (EU IDs MG-1 through MG-9, MG-11 through MG-22, MG-26, and MH-1 through MH-4), Dust Emission Units (EU IDs MF-1, MD-1, MD-5 through MD-10), the Concrete Batch Pant (EU ID MC-1), and Incinerators (MI-2 and MI-3)

3. Visible Emissions Monitoring. The Permittee shall observe the exhaust for visible emissions using either the Method 9 Plan under Condition 3.5 or the Smoke/No-Smoke Plan under Condition 3.6 of:

3.1 EU IDs MG-1 through MG-6, MG-17 and MG-18, MH-1 through MH-4, MF-1, MD-7 through MD-10, and MI-2 and MI-3;

3.2 EU IDs MG-7 through MG-9, MG-11 through MG-16, MG-19 through MG-22, MD-1 and MD-4 through MD-6 if required by Condition 1.2;

3.3 EU ID MG-26 if required by Condition 1.4.

3.4 The Permittee may change visible-emission surveillance plans for an emission unit at any time unless prohibited from doing so by Condition 3.7. 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)]

3.5 **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.[3]

a. **First Method 9 Observation.** For any unit, observe exhaust for 18 minutes within 14 calendar days after changing from the Smoke/No-Smoke Plan (Dust/No Dust) of Condition 3.6.

(i) For any unit listed in Condition 3 replaced during the term of this permit, observe exhaust for 18 minutes within 30 days of startup.

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

(ii) For each existing emission unit that exceeds the operational threshold in Condition 1.2 or 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.** Excluding emission units subject to Condition 3.5c, after the first Method 9 observation required by Condition 3.5a, perform 18-minute observations at least once in each calendar month that an emission unit operates.

c. **Quarterly Method 9 Observations.** For EU IDs MG-1 through MG-6, MG-17, MG-18, MI-2 and MI-3, for the first year of operation under this permit, take opacity readings no less than once per calendar quarter during which that unit operates.

[Conditions 30.2 and 31.4, Construction Permit No. 9932-AC005, Rev 2, 7/16/03]
[Condition 20.4, Construction Permit No. 0032-AC018 Rev 1, 12/26/02]

d. **Semiannual Method 9 Observations.** After the first year of quarterly observations under Condition 3.5c or observing emissions for three consecutive operating months under Condition 3.5b, 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.

e. **Annual Method 9 Observations.** After at least two semiannual 18-minute observations under Condition 3.5d, 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

f. **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 3.5b, until the criteria in Condition 3.5d for semiannual monitoring are met.

3.6 **Smoke/No Smoke Plan (or Dust/No Dust).** Observe the exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

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 or dust in the exhaust for those 30 days, then observe emissions at least once in every calendar month that an emission unit operates.

c. **Smoke or Dust Observed.** If smoke or dust is observed, either begin the Method 9 Plan of Condition 3.5 or perform the corrective action required under Condition 3.7.

3.7 **Corrective Actions Based on Smoke/No Smoke (or Dust/No Dust) Observations.** If visible emissions are present in the exhaust during an observation performed under the Smoke/No Smoke (or Dust/No Dust) Plan of Condition 3.6, then the Permittee shall either follow the Method 9 plan of Condition 3.5 or

a. initiate actions to eliminate smoke or dust from the emission unit within 24 hours of the observation;

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

c. after completing the actions required under Condition 3.7a,

(i) take Smoke/No Smoke (or Dust/No Dust) observations in accordance with Condition 3.6.

(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 3.6b; or

(ii) if the actions taken under Condition 3.7a do not eliminate the smoke or dust, or if subsequent smoke or dust is observed under the schedule of Condition 3.7c(i)(A), then observe the exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke (or Dust/No Dust) Plan; after observing smoke or dust and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates smoke or dust and restart the Smoke/No Smoke (or Dust/No Dust) Plan under Condition 3.6a.

4. Visible Emissions Recordkeeping. When required by any of Conditions 1.1 through 1.5 or 2.1, or in the event of replacement of any EU ID(s) during the permit term, the Permittee shall keep records as follows:

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

4.1 When using the Method 9 Plan of Condition 3.5,

a. the observer shall record

(i) the name of the stationary source, emission unit and location, emission unit type, observer's name and affiliation and the date on the Visible Emissions Field Data Sheet in Section 12;

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

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

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Record in Section 12; and

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

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

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

4.2 If using the Smoke/No Smoke (or Dust/No Dust) Plan of Condition 3.6, 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).

5. Visible Emissions Reporting. When required by any of Conditions 1.1 through 1.5 or 2.1, or in the event of replacement of any EU ID(s) during the permit term, the Permittee shall report visible emissions as follows:

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

5.1 Include in each operating report required in Condition 102, for the period covered by the report:

a. which visible-emissions plan of Condition 3 was used for each emission unit; if more than one plan was used, give the time periods covered by each plan;

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

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

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-minute average observed; and

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

c. for each emission unit under the Smoke/No Smoke (or Dust/No Dust) Plan, the number of days that Smoke/No Smoke (Dust/No Dust) observations were made and which days, if any, that smoke or dust was observed; and

d. a summary of any monitoring or recordkeeping required under Conditions 3 and 4 that was not done;

5.2 Report under Condition 101:

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

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

Portable Rock Crushing Emission Units

(EU IDs PRC-1 through PRC-11)

6. Visible Emissions Monitoring, Recordkeeping and Reporting. For PRC-1 through PRC-11, the Permittee shall comply with Conditions 1.5 and 45.4 as follows:

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

6.1 Inspect each emission point subject to this condition using Method 9 (40 C.F.R. 60, Appendix A) adopted by reference in 18 AAC 50.040(a)) at the following times (use Section 12 – Visible Emissions Form):

a. within two days of startup at each new location; and

b. at least once in every 60 days of operating.

c. within 24 hours following the startup of the rock crusher after a shutdown period of more than five days.

6.2 Include results of visible emissions observations with the operating report described in Condition 102 for the period covered by the report.

6.3 Include copies of the records of crusher operation with the operating report required by Condition 102 for the period covered by the report.

[18 AAC 50.040(j), 50.326(j)]
[40 C.F.R. 71.6(a)]
[Condition 6.1, Minor Permit AQ0290MSS06 Rev.1, 5/5/09]

Particulate Matter Emissions Standards

7. Industrial Process and Fuel-Burning Equipment Particulate Matter. The Permittee shall not cause or allow particulate matter emitted from EU IDs MG-1 through MG-9, MG-11 through MG-22, MF-1, MC-1, MD-1, MD-4 through MD-10, PRC-1 through PRC-11, MG-26, and MH-1 through MH-4 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)]

7.1 For EU IDs MG-1 through MG-9 and MG-11 through MG-22 and MG-26 monitor, record and report in accordance with Conditions 8 through 10.

7.2 For EU IDs MH-1 through MH-4 monitor, record and report in accordance with Conditions 11 through 13.

7.3 For EU IDs MD-1 and MD-4 through MD-10 monitor, record and report in accordance with Condition 14.

7.4 For EU ID MF-1 monitor, record and report in accordance with Conditions 43.3 and 43.5.

7.5 For the portable rock crushing operations (EU IDs PRC-1 through PRC-11), monitor, record and report in accordance with Conditions 18.4 and 18.5; and Conditions 79.8, 79.9 and 79.10.

7.6 For the concrete batch operations (EU ID MC-1), monitor, record and report in accordance with Conditions 3, 4, and 5; and Conditions 79.4 through 79.7 .

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

PM Monitoring, Recordkeeping and Reporting

Liquid Fuel-Fired Diesel Engines (EU IDs MG-1 through MG-9, and MG-11 through MG-22)

8. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines EU IDs MG-1 through MG-9, MG-11 through MG-22 and MG-26, if required by Condition 7.1 to determine the concentration of particulate matter (PM) in the exhaust of an emission unit in accordance with this Condition 8.

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

8.1 Except as provided in Condition 8.4 within six months of exceeding the criteria of Condition 8.2a or 8.2b, either

a. conduct a PM source test according to requirements set out in Section 7; or

b. make repairs so that emissions no longer exceed the criteria of Condition 8.2; to show that emissions are below those criteria, observe emissions as described in Condition 3.5 under load conditions comparable to those when the criteria were exceeded.

8.2 Conduct the PM source test or make repairs according to Condition 8.1 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.

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

8.4 The automatic PM source test requirement in Conditions 8.1 and 8.2 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.

9. Particulate Matter Recordkeeping for Diesel Engines. The Permittee shall keep records of the results of any PM testing and visible emissions observations conducted under Condition 8.

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

10. Particulate Matter Reporting for Diesel Engines. 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)]

10.1 Report under Condition 101

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

b. if one of the criteria of Condition 8.2 was exceeded and the Permittee did not comply with either Condition 8.1a or 8.1b, this must be reported by the day following the day compliance with Condition 8.1 was required;

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

10.3 In each operating report under Condition 102, 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 8.2;

b. a summary of the results of any PM testing under Condition 8; and

c. copies of any visible emissions observation results (opacity observations) greater than the thresholds of Condition 8.2, if they were not already submitted.

Liquid Fuel-Fired Heaters

(EU IDs MH-1 through MH-4)

11. Particulate Matter Monitoring for Liquid Fuel-Fired Heaters. The Permittee shall conduct source tests on EU IDs MH-1 through MH-4, if required by Condition 7.2, to determine the concentration of PM in the exhaust of EU IDs MH-1 through MH-4 as follows:

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

11.1 Except as required under Condition 10.3, conduct a PM source test according to the requirements set out in Section 7 no later than 90 calendar days after any time corrective maintenance fails to eliminate visible emissions greater than the 20 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period.

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

11.3 The PM source test requirement in Condition 11 is waived for an emission unit if:

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

b. Take corrective action and conduct two 18-minute visible emissions observations in a consecutive six-month period to show that the excess visible emissions described in Condition 3.5 no longer occur.

12. Particulate Matter Recordkeeping for Liquid Fuel-Fired Heaters. 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)(4)]
[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]

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

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

13.1 In each operating report required by Condition 102, include for the period covered by the report:

a. the dates, EU IDs and results when an 18-minute opacity observation was greater than the applicable threshold criterion in Condition 3.5f.

b. a summary of the results of any PM testing and visible emissions observations conducted under Condition 11.

13.2 Report as excess emissions, in accordance with Condition 101, any time the results of a source test for PM exceed the PM emission limit stated in Condition 7.

Baghouses

(EU IDs MD-1 and MD-4 through MD-10)

14. Particulate Matter Monitoring for Industrial Process Baghouses. The Permittee shall conduct source tests to determine the concentration of PM in the exhaust of EU IDs MD-1, and MD-4 through MD-10, as follows:

14.1 Conduct a PM source test according to the requirements set out in Section 7 no later than 90 calendar days after any time corrective maintenance fails to eliminate visible emissions greater than the:

a. 20 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period, as applies to EU ID MD-5 per Condition 1; or

b. 7 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period, as applies to EU IDs MD-1, MD-4, and MD-6 through MD-10 per Condition 43.1b.

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

14.3 The PM source test requirement in Condition 14.1 is waived for an emission unit if:

a. a PM source test on that unit has shown compliance with the PM standard during the permit term (see Condition 43.3); or

b. take corrective action and conduct two 18-minute visible emissions observations in a consecutive six-month period to show that the excess visible emissions described in Condition 3.5 no longer occur.

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

Sulfur Compound Emission Standards Requirements

15. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs MG-1 through MG-9, MG-11 through MG-22, MF-1, MG-26, and MH-1 through MH-4 to exceed 500 ppm averaged over three hours.

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

For Fuel Oil[4] (EU IDs MG-1 through MG-9, MG-11 through MG-22, and MG-26)

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

a. If the fuel grade requires a sulfur content less than 0.45 percent by weight, keep receipts that specify the fuel grade, maximum sulfur content allowed and amount received; or

b. If the fuel grade does not require a sulfur content less than 0.45 percent by weight, keep receipts that specify the fuel grade and amount received; and

(i) test the fuel for sulfur content; or

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

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

c. When fuel shipments are combined at the site, calculate the sulfur content of the combined fuel if the sulfur content of any of the fuel combined is greater than 0.16 percent by weight, taking into account the density, volume, and sulfur content of each fuel shipment. In the event that fuel sulfur content is not measured, then use the maximum sulfur content for that fuel grade to determine whether any of the fuel combined is greater than 0.16 percent and to calculate the combined fuel sulfur content.

d. If the sulfur content of any fuel oil added into any of MT1 through MT-4 exceeds 0.16 percent by weight, then determine the fuel sulfur content of the 12-month average blended fuel by calculating the average sulfur content for that tank as follows:

$\sum(DF_N * \%\ S\ DF_N) / \sum DF_N$ = total S% by weight of blend

Where:

N	=	each fuel type blended in a 12-month period
DFN	=	Total gallons of each fuel type N added to the tank during that period.
%SDFN	=	Sulfur content or maximum fuel content of each fuel type N used for blending

Include the residual fuel oil in each tank prior to blending as one fuel type.

15.2 Fuel testing under Condition 15.1 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

15.3 If a load of fuel contains greater than 0.75 percent sulfur by weight, the Permittee shall calculate SO_2 emissions in ppm using either Section 13 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a).

15.4 The Permittee shall report as follows:

a. If SO_2 emissions calculated under Condition 15.3 exceed 500 ppm, the Permittee shall report under Condition 101. When reporting under this condition, include the calculation under Condition 15.3.

b. The Permittee shall include in the operating report required by Condition 102

(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 0.45 percent sulfur, the fuel sulfur of each shipment;

(iii) for any of MT-1 through MT-4 for which a fuel constituent greater than 0.16% sulfur was added, the 12-month blended fuel sulfur content.

(iv) 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)]
[Condition 6 and Exhibits B (F), C, & D, Operating Permit No. 9332-AA003 Am. 2, 12/4/96]
[Conditions 12 & 17, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]
[Conditions 13 & 18, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[40 C.F.R. 71.6(a)(3)]

Preconstruction[5] Permit Requirements

Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations

16. Public Access Control Plan. The Permittee shall comply with the provisions of the Public Access Control Plan contained in Section 4 of this permit. The public access control plan contained in Section 4 supersedes all public access control plans that were approved by the Department prior to the effective date of this permit. The Permittee may submit revisions to the Public Access Control Plan for Department approval no later than 120 days after the effective date of Permit No. 9932-AC005 Revision 2 for Department adjustments to the ambient air quality boundary imposed by this permit decision.

[Condition 10, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

17. Sulfur Dioxide Requirement. For all fuel oil-burning emission units listed in Table A of this permit, the Permittee shall comply with the following requirements:

17.1 The sulfur content of fuel oil burned must not exceed 0.45 percent by weight at any time; and 0.16 percent averaged over the most recent 12 consecutive months.

17.2 Monitor and record according to Conditions 15.1 and 15.2.

17.3 Keep records of calculations performed in Condition 15.1 to determine the sulfur content of combined shipments and copies of fuel delivery receipts used in the calculations.

17.4 For each calendar month, calculate and record the sulfur content averaged over the most recent 12 consecutive months.

17.5 Report under Condition 101 if

a. Fuel delivered exceeds 0.45 percent by weight sulfur; or

b. The consecutive 12-month average fuel sulfur concentration obtained in Condition 17.4 exceeds 0.16 percent by weight.

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

17.6 Include with the operating reports in Condition 102 the records required under Conditions 17.3 and 17.4.

[Condition 6 and Exhibits B (F), C, & D, Operating Permit No. 9332-AA003 Rev. 2, 12/4/96]
[Conditions 12 & 17, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]
[Conditions 13 & 18, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[Condition 10, Minor Permit No. AQ0290MSS06 Rev 1, 5/6/2009]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

18. Fugitive Particulate Matter Requirements. The Permittee shall comply with the following requirements:

For EU ID MF-5

18.1 Control particulate matter emissions from the DeLong Mountain Regional Transportation System road and all stationary source unpaved roads, including the in-pit bench access unpaved roads, the oxide dump haul road and the main haul roads to the crusher stockpile, the special ore stock pile and the overburden dumps, as follows:

a. At least once each calendar year, as soon as road and weather conditions allow, but in no case later than July 10, apply calcium chloride, or similar dust control agents in sufficient quantities to control fugitive dust. Measure the effectiveness of dust control application as outlined in Condition 18.1b.

b. Each day the road surface is not frozen or the road surface does not exhibit visible surface moisture, determine and record the duration of particulate matter emissions resulting from road traffic, as follows:

(i) In accordance with the procedures specified in 40 C.F.R.60, Appendix A, Reference Method 22;

(ii) Record the vehicle type for each reading;

(iii) Initiate observations at the time that the observed vehicle passes the observer; and

(iv) Continue observations until that vehicle's visible emissions have completely dissipated.

c. If the duration of particulate matter emissions is greater than two minutes, then apply additional calcium chloride or water to the road surface to reduce particulate matter emissions as soon as practicable. After the application of additional calcium chloride or water, determine and record the duration of vehicle particulate matter emissions, as described in Condition 18.1b.

18.2 Control particulate matter emissions from all paved road sections at the stationary source as follows:

a. Control particulate matter emissions of the paved road sections by means of dust removal, sweeping, vac-clean, or surface washing.

b. Determine and record the duration of vehicle particulate matter emissions as described in Condition 18.1b.

c. If the duration of particulate matter emissions is greater than two minutes, then perform particulate matter removal by means of sweeping, vac-clean, or surface washing of the road surface to reduce particulate matter emissions as soon as practicable. After each performed particulate matter removal when the road surface has dried, determine and record the duration of vehicle particulate matter emissions, as described in Condition 18.1b.

18.3 For the use of alternative road dust control agents and/or strategies other than set out in Condition 18.1a; the Permittee shall obtain a written approval from the Department.

a. Submit the request for approval to the Department no less than 30 days prior to the use of alternative road dust control agents and strategies.

b. Include descriptions of the road dust agents and methods of application, frequency of the application, material safety data sheet for each agent, dosages of the agent per surface area and location and time period when the alternative road dust control operations will start.

c. Measure the effectiveness of alternative dust controls as set out in Condition 18.1b.

[Condition 15, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

For EU IDs PRC-1 through PRC-11

18.4 The Permittee shall only crush material that is wet. Wet suppression methods consist of:

a. placement of spray nozzles at units PRC-2 and PRC-7 that are only required to operate if wetting is insufficient following;

b. material being wet due to ambient or naturally occurring conditions such as rain; or

c. material being wet due to water spraying prior to being fed into the rock crusher.

18.5 Monitor using visual observations in accordance with Condition 6 and apply more water if rock crusher operations are generating dust at any time.

18.6 The Permittee shall comply with the requirements of Condition 79.8 to take reasonable precautions to prevent the release of airborne PM and fugitive dust from the rock crusher, EU IDs PRC-1 through PRC-11.

18.7 Record the date, time, location and description of all actions taken to control particulate matter emissions under Conditions 18.1 and 18.3.

18.8 Submit a copy of the records required under Conditions 18.1b and 18.7 with the facility operating report required by Condition 102.

[Conditions 12, 13 & 14, Minor Permit No. AQ0290MSS06 Rev. 1, 5/5/09]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Best Available Control Technology (BACT) Emissions Limits

19. For EU IDs MG-1, MG-3 through MG-5, MG-11 through MG-17, MG-19 through MG-21, MH-1 through MH-4, MI-3, MD-1 through MD-4, MD-6, MF-2[6] through MF-9 and MC-1, comply with the BACT limits indicated in Table B.

[Sections 4 and 5, Permit No. 9932-AC005 Rev 2, 7/16/03]

Table B - BACT Limits

EU IDs	NO_X Limits	Visible Emissions Limits	PM Limits	Fugitive Emissions Requirements
MG-1 and MG-3 through MG-5	750 ppm (corrected to 15 % O_2, averaged over any three hours)	None	None	None
MG-17	121.3 lb/hr (expressed as NO_2, averaged over any three hours)	SIP standards (Condition 1)	2.6 lb/hr (averaged over three hours)	
MG-11 through MG-16 and MG-19 through MG-21	0.031 lb/Hp-hr	SIP standards (Condition 1)	None	
MH-1 through MH-3	0.084lb/MMBtu heat input	SIP standards (Condition 1)	None	
MH-4	None	SIP standards (Condition 1)	None	
MI-3	None	10%, averaged over 6 minutes	0.086 grains/dscf (corrected to 7% O_2 in the exhaust, averaged over three hours)	
MD-1 through MD-3 and MF-2(1) through MF-4	None	Comply with Condition 43.	Comply with Condition 43.	
MD-4	None	Comply with Condition 43.	0.01 grains/dscf (averaged over three hours)	
MD-6	None	SIP standards (Condition 3) Comply with Condition 43.	0.01 grains/dscf (averaged over three hours) Comply with Condition 43	

[6] See footnote 1.

EU IDs	NO_X Limits	Visible Emissions Limits	PM Limits	Fugitive Emissions Requirements
MC-1, MF-6, and MF-7	None			Comply with Condition 79
MF-5	None			Comply with Condition 18
MF-8 and MF-9	None			Comply with Condition 84

(1) EU IDs MD-7 and MD-8 are the respective emission points for industrial processes MF-2 and MF-3. See Footnote 1 of this permit.
(2) Condition 43 is NSPS Subpart LL

NO_X Emissions Requirements:

19.1 **NO_X Recurring Source Tests**. The Permittee shall conduct source tests on MG-17; a representative unit of MG-1, MG-3, MG-4, and MG-5; a representative unit of MG-11 through MG-16; and a representative unit of MG-19 through MG-21, to determine compliance with the NO_X BACT limits indicated in Table B. The NO_X and O_2 source tests shall be based on 40 C.F.R. 60, Appendix A, Method 20, or Method 7E and either Method 3 or 3A. Perform the source test in accordance with Section 7.

a. Test one unit in each group (EU ID MG-17 is a "group"; EU IDs MG-1, MG-3, MG-4 and MG-5 are a "group"; EU IDs MG-11 through MG-16 are a "group"; and EU IDs MG-19 through MG-21 are a "group") within 12 months after the effective date of this permit.

b. Except as provided in 19.1a, test one unit within each group within five years after the preceding test. Ensure that a different unit in each "group" is tested in each subsequent test (except for EU ID MG-17).

c. If all engines within a group have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or representative source testing is required for that group.

(i) Report the following if the situation in Condition 19.1c occurs.

(A) In each operating report under Condition 102 for each engine for which Condition 19.1 has not been satisfied because the engine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify:

(1) the engine;

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

(3) any engine that operated for 400 or more hours.

d. **Substituting Test Data**. The Permittee may use NO_X emissions test data from another representative engine operated by the Permittee to satisfy the requirements of Condition 19.1 if:

(i) the Permittee demonstrates that historical test results for the present configuration are less than or equal to 90 percent of the applicable emission limits of Condition 19, and are projected to be less than or equal to 90 percent of the applicable limit at maximum load;

(ii) the Permittee documents the intent to perform substitute testing for multiple engines in the source test plan; and

(iii) the Permittee identifies in a source test plan under Condition 92

(A) the engine to be tested;

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

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

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

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

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

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

(D) The Permittee may not use substitute test results to represent emissions from an engine or group of engines if that engine or group of engines is operating at greater than 90 percent of any of the emission limits of Condition 19.

19.2 Report the results of the source tests conducted under Condition 19.1 in accordance with the requirements set forth in Section 7 of this permit.

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

Particulate Matter Requirements:

19.3 **Visible Emissions Observations**: The Permittee shall demonstrate compliance with the visible emissions limits indicated in Table B as follows:

a. For EU IDs MG-17, MG-11 through MG-16, MG-19 through MG-21, and MH-1 through MH-4, monitor, record and report in accordance with the applicable requirements of Condition 1.1 or 1.2.

b. For EU ID MI-3, monitor, record and report in accordance with Conditions 3 through 5, as applies to the 10 percent opacity limit in Table B.

(i) Report under Condition 101 if visible emissions averaged over six minutes exceed 10% opacity.

c. For EU IDs MD-1 through MD-4, MD-6, and MF-2 through MF-4, monitor, record and report in accordance with Conditions 43.3 and 43.5.

19.4 **PM Recurring Source Tests**: The Permittee shall conduct PM source tests to demonstrate compliance with the PM limits indicated in Table B as follows:

a. For EU ID MG-17, conduct the source test according to the requirements set out in Condition 25.2 as applied to EU ID MG-17.

b. If EU ID MI-3 operates for more than 6 months in any 12 consecutive month period, conduct a source test according to the requirements set out in Section 7.

(i) Maintain monthly and 12 consecutive month operating records for EU ID MI-3.

[Condition 23.3c, Construction Permit 9932-AC005, Rev. 2, 7/16/03]

(ii) Conduct the PM source test within 6-months of triggering the requirement under Condition 19.4b and conduct no more than one test per calendar year if triggered; otherwise conduct a test at least once within the 5 years of the effective term of the permit.

c. For MD-1 through MD-4, and MD-6 conduct the source tests in accordance with Condition 43.3b.

19.5 Report the results of the source tests conducted under Conditions 19.3 and 19.4 in accordance with the requirements set forth in Section 7 of this permit.

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

Point Sources and Fugitive Particulate Matter Emissions Requirements:

19.6 For EU IDs MD-1 through MD-4, MD-6, MC-1, MF-2[7] through MF-9, comply with the requirements indicated in Table B.

[Conditions. 23.4 – 23.9, Construction Permit 9932-AC005, Rev. 2, 7/16/03]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Owner Requested Limits (ORLs)

20. Emissions and Fuel Usage Thresholds to Avoid PSD for Small and Backup Emission Units: For EU IDs MG-7 through MG-9, MG-11 through MG-16, MG-19 through MG-22, MD-1, and MD-4 through MD-6, the Permittee shall not allow the emission units to exceed the threshold values in Table C.

[7] See Table Note 1 and Footnote 1.

Table C - Emissions and Fuel Usage Thresholds Values

EU IDs	Source Description	Rating/Size	Threshold Values (per calendar year, each unit)
MG-7 through MG-9, MG-11 through MG-16, MG-19 through MG-22	Diesel generators and pumps	90 – 650 kW	6,618 gallons of fuel (for NO_X)
MD-1 and MD-4 through MD-6	Dust collectors	1,200 – 9,000 ACFM	1,500 lbs. PM_{10}

[18 AAC 50.230(c)(1)(D)]

20.1 Monitor, calculate and record the monthly fuel consumption and the year-to-date total fuel consumption for each of EU IDs MG-7 through MG-9, MG-11 through MG-16, and MG-19 through MG-22;

20.2 Monitor, calculate and record the monthly hours of operation and PM_{10} emissions and the year-to-date total hours of operation and PM_{10} emissions for each of EU IDs MD-1 and MD-4 through MD-6. The PM_{10} emissions can be computed using the following formula:

A = (grain/dscf/7000)

B = (fan, ACFM * 560/(air temp F + 492)

C = (fan operating time in minutes)

A * B * C = pounds of PM_{10}

20.3 Submit with the operating reports required under Condition 102:

a. The records required under Conditions 20.1 and 20.2; and

b. An annual compliance certification under Condition 103 with the visible emissions and particulate matter standards in Conditions 3 and 4, if the emission units have not exceeded the thresholds in Table C.

[Condition 26 and Exhibit B, Operating Permit No. 9332-AA003 Am. 2, 12/4/96]
[Condition 6, Permit No. AQ0290TVP01, Rev. 1, 6/25/07]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

21. Limits to Avoid PSD Review for Carbon Monoxide. To avoid PSD review for carbon monoxide (CO), the Permittee shall comply with the requirements in this condition to limit the stationary source's potential to emit.

21.1 EU ID MG-18 operational restriction:

a. Except as provided for in Conditions 21.1b and 21.1c operate EU ID MG-18 only when one of EU IDs MG-1 through MG-6 is not in operation.

b. EU ID MG-18 may operate concurrently with all of EU IDs MG-1 through MG-6 only for transition periods not to exceed one hour in duration and only when EU ID MG-18 or one of the other generators is being brought on line or taken off- line due to planned maintenance or malfunction as long as the operational restriction in Condition 21.3g is met.

c. EU ID MG-18 may also operate concurrently with all of EU IDs MG-1 through MG-6 up to a maximum of six hours for testing purposes when one of the other generators EU ID MG-1 through MG-6 has undergone major overhaul or repairs as long as the operational restriction in Condition 21.3g is met.

d. Maintain operational records (time, duration and unit number) for EU IDs MG-1 through MG-6 and MG-18. Record the time, date, duration and reason for each incident that requires concurrent operation authorized in Conditions 21.1b and 21.1c.

e. Report the permit deviation to the Department as provided in Condition 101, if MG-18 operates when all of EU IDs MG-1 through MG-6 are in operation, except as authorized in Conditions 21.1b and 21.1c.

f. Attach to the operating report required by Condition 102 the recorded information in Condition 21.1d and the total duration of concurrent operation during the reporting period.

[Conditions. 16.1 & 16.3, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]

21.2 Limit carbon monoxide emissions from EU IDs MG-1 through MG-6, MG-17, and MG-18 to no greater than 8.0 lb/hr, averaged over any three hours.

a. **CO Recurring Testing**. The Permittee shall monitor compliance with Condition 21.2 by conducting source tests on EU IDs MG-17, MG-18, and a representative unit of EU IDs MG-1 through M-6.[8] To determine the CO emission rate, measure CO and O_2 in accordance with Methods 10 and 3A, respectively. Use Method 19 to convert CO emission concentrations to emission rates. Perform the source test in accordance with Section 7. Conduct the tests within 12 months after the permit effective date and every five years thereafter.

(i) If all engines within a group (EU IDs MG-1 through MG-6 are in a "group", EU ID MG-17 is a "group"; and EU ID MG-18 is a "group") have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or representative source testing is required for that group.

[8] To meet this requirement, the Permittee may test for CO under Condition 54.7.

(A) Report the following if the situation in Condition 21.2a(i) occurs.

(1) In each operating report under Condition 102 for each engine for which Condition 21.2a has not been satisfied because the engine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify:

1. the engine;

2. the highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and

3. any engine that operated for 400 or more hours

(ii) **Substituting Test Data**. The Permittee may use CO emissions test data from another representative engine operated by the Permittee to satisfy the requirements of Condition 21.2a if :

(A) the Permittee demonstrates that historical test results for the present engine configuration are less than or equal to 90 percent of the applicable emission limits of Condition 21.2, and are projected to be less than or equal to 90 percent of the applicable limit at maximum load;

(B) the Permittee documents the intent to perform substitute testing for multiple engines in the source test plan; and

(C) for any source test done after the effective date of this permit, the Permittee identifies in a source test plan under Condition 92

(1) the engine to be tested;

(2) the other engines in the group that are to be represented by the test; and

(3) why the engine to be tested is representative, including that each engine in the group

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

2. operates under close to identical ambient conditions as the untested engines;

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

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

(D) The Permittee may not use substitute test results to represent emissions from an engine or group of engines if that engine or group of engines is operating at greater than 90 percent of any of the emission limits of Condition 21.2.

b. For EU ID MG-17, the Permittee may conduct CO source tests of Condition 21.2a upstream of (before) the Selective Catalytic Reduction (SCR) control system.

c. Report the results of source tests conducted under Condition 21.2a, as set out in Section 7.

[Condition 16.2, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]
[Conditions 17.1 & 17.3, Construction Permit No. 9932-AC005, Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

21.3 Limit the operation of the following emission units in any consecutive 12-month period to no greater than:

a. 22,500 hours for the combined operation of the ABCO Glycol/water Heaters, EU IDs MH-1, MH-2, and MH-3;

b. 3,000 hours for the ConPac Camp Backup Power Generator, EU ID MG-10;

c. 5,000 hours for the Advanced Combustion Incinerator, EU ID MI-3;

d. 2,400 hours each, for the Concrete Batch Plant, EU ID MC-1 and the Concrete Batch Plant Generator, EU ID MG-13;

e. 1,690,000 kilowatt-hours of combined power output from the Supplemental Power Service Complex Generators, EU IDs MG-7, MG-8 and MG-9;

f. 500 hours each, for EU IDs MG-12, MG-19, MG-20, MG-21 and MG-22; and

g. 52,560 hours total combined for EU IDs MG-1 through MG-6 and MG-18.

[Condition 18.2, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[Condition 16.5, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]

21.4 For each calendar month, monitor, calculate and record

a. The hours that each EU IDs MH-1 through MH-3, MG-1 through MG-6, MG-10, MG-12, MG-13, MG-18 through MG-22, MI-3 and MC-1 operated in the most recent consecutive 12-month period; and

b. The combined kilowatt-hours produced by EU IDs MG-7, MG-8 and MG-9 during the most recent 12 consecutive months.

21.5 Submit a copy of the records required by Conditions 21.4a and 21.4b with the operating report required by Condition 102.

21.6 Report under Condition 101 if any of the emission units exceeded the operational limits set out in Condition 21.3.

[Conditions 17.4 & 17.5, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

22. Limits to Avoid PSD Review for Sulfur Dioxide. To avoid PSD review for sulfur dioxide (SO_2), the Permittee shall comply with the requirements in this condition to limit the stationary source's potential to emit:

22.1 For all fuel oil-burning emission units listed in Table A of this permit, comply with the requirements of Condition 15.

[Condition 17.3, Construction Permit No. 0032-AC018 Rev.1, 11/26/02]
[Conditions 16.3, 16.4, 18.1, 18.3, & 18.4, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

22.2 Operate following the limits set out in Conditions 21.1 and 21.3.

[Condition 17.1, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]
[Condition 18.2, Construction Permit No. 9932-AC005 Rev 2, 7/16/03]

22.3 Provide information as set out in Conditions 21.1f and 21.5.

[Condition 17.2, Construction Permit No. 0032-AC018 Rev. 1, 11/26/02]

22.4 Limit the operation of the following nonroad engines, in any consecutive 12-month period to no greater than:

a. 1,000 hours for EU ID MG-23 (94-08);

b. 7,000 hours for EU ID MG-24 (94-19); and

c. 6,000 hours for EU ID MG-25 (94-25).

22.5 For each calendar month, monitor, calculate and record the hours that each EU IDs MG-23, MG-24 and MG-25 operated in the most recent consecutive 12- month period.

22.6 Submit a copy of the records required by Condition 22.5 with the operating report required by Condition 102.

22.7 Report under Condition 101 if any of the emission units exceeded the operational-hour limits set out in Condition 22.4.

[Conditions 16.1 & 16.2, Construction Permit No. 9932-AC005, Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

23. Limits to Avoid PSD Review for Oxides of Nitrogen. To avoid PSD review for oxides of nitrogen (NO_X), the Permittee shall comply with the requirements of this section to limit the stationary source's potential to emit.

For EU ID MG-18:

23.1 For EU ID MG-18, limit NO_X emissions to no greater than 121.3 lbs/hour.

a. **NOx Recurring Testing.** The Permittee shall monitor compliance with the short-term NO_X BACT limit in Condition 23.1 for EU ID MG-18 by conducting source tests no later than 12 months after the effective date of this permit and every five years thereafter. Record and report results of the source tests in accordance with Section 7.

(i) If EU ID MG-18 has a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or substitute testing is required for MG-18.

(A) Report the following if the situation in Condition 23.1a(i) occurs.

(1) In each operating report under Condition 102 for each engine for which Condition 23.1a has not been satisfied because EU ID 18 operated less than 400 hours in any 12 consecutive months, the Permittee shall identify:

1. the engine;

2. the highest number of operating hours for any 12 consecutive months ending during the period covered by the report.

(ii) Test EU ID MG-18 within 12 months after exceeding 400 hours of run time in any 12-month period ending after the effective date of this permit if a test has not been completed during the previous 4 years.

(iii) Report the results of source tests conducted under Condition 23.1a as set out in Section 7.

b. Operate, monitor, record and report as set out in Conditions 21.1 and 21.3g.

c. Report under Condition 101 if the source exceeds the limit in Condition 23.1.

[Condition 18, Construction Permit No. 0032-AC018 Rev.1, 11/26/02]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

For EU ID MXG-101:

23.2 Limit the operation of EU ID MXG-101 to less than 6,200 hours per year. Monitor, record and report as follows:

a. Install and operate a dedicated continuous monitoring system for recording operating hours that is accurate to within five percent.

b. Monitor and record monthly the operating hours.

c. If the twelve-month total exceeds 6,200 hours, report as excess emissions under Condition 101.

d. Include the records required under Condition 23.2b in the report required by Condition 102.

[Condition 11, Minor Permit No. AQ0290MSS06 Rev 1, 5/6/09]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

24. Limits to Avoid PSD Review for Oxides of Nitrogen for EU IDs MG-3 and MG-17 with Selective Catalytic Reduction (SCR) Controls. Condition 24 is applicable only for the period that the U. S. EPA Amended Administrative Order Docket No. CAA-10-2000-0035 dated March 7, 2000 is valid.

24.1 The Permittee shall limit the emissions of oxides of nitrogen per consecutive 12-month period, as follows:

a. For EU ID MG-17 with SCR control, to no greater than 79.7 tons;

b. For EU ID MG-3, to no greater than 457.0 tons. At all times when EU ID MG-18 operates as a backup to EU ID MG-3, include MG-18 emissions to count for the purpose of this listed limit;

c. For EU IDs MG-1 through MG-6, MG-17 with SCR control and MG-18 shall to no greater than 3,193.2 tons; and

d. For EU IDs MG-1, MG-3, MG-4 and MG-5 to no greater than 2,050.0 tons.

24.2 For EU ID MG-17 with SCR control, limit the emissions of ammonia (NH_3) to no greater than 30 ppm by volume.

24.3 Before EU ID MG-17 start up, install and calibrate a SCR unit for continuous NO_X controls of no less than 85% control efficiency.

a. Monitor performance of SCR system as set out in Conditions 24.4a, 24.4b and 24.4c. Perform the necessary maintenance and operation practices following the vendor guidelines to ensure compliance with the oxides of nitrogen and ammonia slip limits.

b. Keep records of all SCR system repairs, maintenance, SCR control system adjustments, including time and date.

c. Keep records of the system alarm logs including time and date of occurrence.

24.4 Emissions Source Testing for EU ID MG-17 with SCR:

a. Perform source testing of EU ID MG-17 and SCR pursuant to Condition 24.4d. Conduct the source test on the engine and SCR unit for NO_X, O_2 and Ammonia in accordance with the requirements set forth in Section 7 of this permit and as follows:

(i) Determine the NO_X emission rate, the load curve, the urea reagent concentration, the urea flow rate, fuel consumption rate and the ammonia slip.

(ii) Install exhaust gas sampling ports upstream and downstream of the SCR system for the portable diesel exhaust gas tester instrument and source tests.

(iii) Conduct NO_X emissions up- and downstream testing concurrently.

(iv) Conduct downstream ammonia testing concurrently with the NO_X emission test.

(v) Sample with hand held analyzer before each run.

(vi) Develop hand held analyzer exhaust traverse for each sampling port of no less than three points to ensure representative sampling.

(vii) Calculate NO_X and ammonia emission rates using Method 19.

(viii) The source test shall include the 100% engine load and no less than three additional load points representing the diesel engine operating range as designed.

b. Conduct ammonia emissions sampling each week of operation of EU ID MG-17 to determine ammonia "slip" in the exhaust effluent to ascertain compliance with Condition 24.2. Conduct ammonia sampling using Drager tubes in the 2-30 ppm range.

[Notice of Violation (NOV) Number 2009-1030-40-8188, 1/19/10)]

c. Conduct NO_X emission samplings each week of operation of EU ID MG-17 to determine the percent SCR NO_X emission removal efficiency as set out in Condition 24.3.

(i) Use for the weekly NO_X emission sampling test a MSI 150 diesel engine exhaust gas tester instrument or Department approved equivalent.

(ii) Measure the oxides of nitrogen, oxygen concentration, stack temperature at sampling ports upstream and downstream of the SCR control at each traverse point.

(iii) Record the results from each traverse point. Calculate and record the average percent oxides of nitrogen removal by SCR control. Sum up results from each traverse point and calculate the average concentration upstream and downstream of SCR unit. Calculate the percentage efficiency. Handheld analyzer sampling traverse points must be representative of the exhaust flow.

(iv) If the oxides of nitrogen measurements demonstrate that the SCR is achieving less than 85 percent oxides of nitrogen removal, notify the Department as set out in Condition 101.

d. To ascertain compliance with Condition 24.1, conduct a source test in accordance with Condition 24.4a no less than once every 8,000 hours of operation after the initial startup. Conduct NO_X emission sampling in accordance with Condition 24.4b within 24 hours after catalyst bed replacement, catalyst elements exchange and changes in the SCR control system, set points, load curve (mapping), urea injection rate.

24.5 Monitoring, recordkeeping and reporting for EU IDs MG-1 through MG-6, MG-17 with SCR control and MG-18:

a. For each calendar month, record the hours of operation of each source.

b. For each calendar month, record the daily urea reagent consumption of EU ID MG-17 with SCR control.

c. For each calendar month, calculate and record the monthly emissions from EU IDs MG-1 through MG-6, MG-17 and MG-18. Use the following equation and emission factors to calculate the monthly NO_X emission rate, M, for each emission unit. The Department, in its discretion, will adjust the emission factors based upon the results of source tests conducted according the procedures specified in Section 7 of this permit. Upon receiving a written request or approval from the Department, the Permittee shall use the adjusted emission factors.

M = Emission Factor * (hours of operation each month) * (1 ton/2000lb)

Emission Factors:

EU ID MG-1 = 121.3 lbs/hour
EU ID MG-3 = 121.3 lbs/hour
EU ID MG-4 = 121.3 lbs/hour
EU ID MG-5 = 121.3 lbs/hour
EU ID MG-6 = 121.3 lbs/hour
EU ID MG-17 (with SCR control) = 18.2 lbs/hour
EU ID MG-18 = 121.3 lbs/hour

d. Submit the following records with the Operating Report required by Condition 102:

(i) Monthly NO_X emissions from EU ID MG-3;

(ii) Monthly NO_X emissions from EU ID MG-18 when substituting EU ID MG-3;

(iii) Monthly total NO_X emissions for EU IDs MG-1 through MG-6, MG-17 and MG-18;

(iv) Monthly total NO_X emissions for EU IDs MG-1, MG-3, MG-4 and MG-5;

(v) Monthly NO_X emissions from EU ID MG-17;

(vi) Weekly ammonia emissions from EU ID MG-17;

[Notice of Violation (NOV) 2009-1030-40-8188, 1/19/10)]

(vii) Weekly percentage (%) of EU ID MG-17 SCR NO_X emissions control efficiency; and

(viii) After twelve months of operation, the consecutive 12-month rolling emission rate.

[Condition 20, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

25. Limits to Avoid PSD Review for Particulate Matter (PM) for EU IDs MG-1 through MG-6 and MG-18. The Permittee shall comply as follows:

25.1 The Permittee shall comply with the requirements in this condition to limit the stationary source's potential to emit.

a. Limit particulate emissions from EU IDs MG-1 through MG-6 and MG-18 to no greater than 2.6 lb/hr, averaged over three hours.

b. Operate as set out in Conditions 21.1 and 21.3.

c. Report under Condition 101 if EU IDs MG-1 through MG-6 and MG-18 exceed the limit in Condition 25.1a.

[Condition 19, Construction Permit No. 0032-AC018 Rev.1, 11/26/02]
[Condition 21, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

25.2 **PM Recurring Testing.** The Permittee shall monitor compliance with the short-term PM limit in Condition 25.1a by conducting a source test on one representative unit of EU IDs MG-1 through MG-6 and MG-18 no later than 12 months after the effective date of this permit and every five years thereafter. Record and report results of the source tests in accordance with Section 7.

(i) If all engines within a group as defined in Condition 19.1a have a run time of less than 400 hours in all consecutive 12-month periods in the preceding 5 years, no source testing or representative source testing is required for that group.

(A) Report the following if the situation in Condition 25.2(i) occurs.

(1) In each operating report under Condition 102 for each engine for which Condition 25.2(i) has not been satisfied because the engine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify:

1. the engine;

2. the highest number of operating hours for any 12 consecutive months ending during the period covered by the report; and

3. any engine that operated for 400 or more hours

(ii) **Substituting Test Data**. The Permittee may use PM emissions test data from another representative engine operated by the Permittee to satisfy the requirements of Condition 21.2a if :

(A) the Permittee demonstrates that historical test results for the present engine configuration are less than or equal to 90 percent of the applicable emission limits of Condition 21.2, and are projected to be less than or equal to 90 percent of the applicable limit at maximum load;

(B) the Permittee documents the intent to perform substitute testing for multiple engines in the source test plan; and

(C) for any source test done after the effective date of this permit, the Permittee identifies in a source test plan under Condition 92

(1) the engine to be tested;

(2) the other engines in the group that are to be represented by the test; and

(3) why the engine to be tested is representative, including that each engine in the group

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

2. operates under close to identical ambient conditions as the untested engines;

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

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

(D) The Permittee may not use substitute test results to represent emissions from an engine or group of engines if that engine or group of engines is operating at greater than 90 percent of any of the emission limit of Condition 25.

b. **Reporting**: Report the results of source tests conducted under Condition 25.2 as set out in Section 7.

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

26. Limits to Avoid PSD Classification and Minor Permit Classification for Particulate Matter for EU IDs MD-7 and MD-8. In order to avoid PSD review and minor permit classification under 18 AAC 50.502(c)(3)(A)(iii), the Permittee shall comply as follows:

26.1 Maintain and operate EU IDs MD-7 and MD-8 according to the manufacturer recommendations or the operator's operation and maintenance procedures.

a. Keep a copy of either the manufacturer's or the operator's procedures on-site.

b. Keep records for five years of any maintenance. The records may be kept in an electronic format.

[Condition 2.2, Minor Permit No. AQ0290MSS02, 6/9/05]

26.2 Limit the combined operation of EU IDs MD-7 and MD-8 to 9,500 hours per consecutive twelve-month period:

a. Install and operate for each unit a dedicated operation hour meter;

b. For each calendar month, monitor, calculate and record the hours that each of EU IDs MD-7 and MD-8 operated and the combined hours that EU IDs MD-7 and MD-8 operated in the most recent consecutive 12-month period.

c. Submit a copy of the records required by Condition 26.2b with the operating report required by Condition 102.

d. Report, using the procedures described in Condition 101, if the cumulative 12-month operation exceeds 9,500 hours.

[Condition 2.2, Minor Permit No. AQ0290MSS02, 6/9/05]

26.3 For EU IDs MD-7 and MD-8, the Permittee shall:

a. Maintain the pressure differential across the bags in the baghouse as recommended by the manufacturer. Once per week, in which the baghouse operates, record the pressure differential readings.

(i) If the pressure differential across the baghouse is above the range recommended by the manufacturer, take steps within 24-hours to clean the bags of excess trapped dust.

(ii) If the pressure differential across the baghouse is below the range recommended by the manufacturer, perform an inspection within 24-hours, of the bags and baghouse assembly to ascertain the integrity of the system.

(iii) If any bags are found with holes or tears or deterioration which renders them ineffectual, replace the bags within 24-hours.

(iv) If after cleaning the bags of excess dust or replacing torn or deteriorated bags, the pressure differential recommended by the manufacturer cannot be maintained, conduct a PM source test within 120 days according to the requirements described in Section 13 to verify the emission factors.

(v) Keep records of all corrective actions as per Condition 26.1b.

b. Once per week at the time the baghouse differential pressure readings are taken, perform a visual inspection of the exhaust outlet of the baghouse.

(i) If dust is observed in the baghouse exhaust during a weekly visual inspection, or noticed at any other time, inspect the bags and baghouse assembly within 24-hours to ascertain the integrity of the system.

(ii) If any bags are found with holes, tears or deterioration, which renders them ineffectual, replace the bags within 24 hours.

(iii) If after making repairs, dust is still visible in the exhaust from the unit, conduct a PM source test within 120 days according to the requirements described in Section 7 to verify the emission factors.

(iv) Keep records of all corrective actions as per Condition 3.7.

[Condition 3, Minor Permit No. AQ0290MSS02, 6/9/05]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

27. Limits to Avoid Minor Permit Classification for Oxides of Nitrogen for EU ID MG-26. In order to avoid classification under 18 AAC 50.502(c)(3)(A)(iii), the Permittee shall limit operation of EU ID MG-26 to 500 hours per 12 consecutive month period.

27.1 Install a non-resettable hour meter prior to the startup of EU ID MG-26.

27.2 Monitor and record the monthly hours of operation for EU ID MG-26.

27.3 Before the end of each calendar month, calculate and record the total hours of operation for EU ID MG-26 for the previous month, then calculate the 12 month rolling total hours of operation by adding to the previous 11 months.

27.4 Report the monthly and rolling 12-month hours of operation of EU ID MG-26, in the operating report required by Condition 102, for the period covered by the report.

27.5 Notify the Department under Condition 101, should the consecutive 12-month operating hours exceed the limit in Condition 27.

[Condition 5, Minor Permit No. AQ0290MSS07, 3/10/10]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

28. Limit to Avoid Minor Permit Classification for Sulfur Dioxide for EU ID MXG-101. In order to avoid classification under 18 AAC 50.502(c)(3)(A)(ii), the Permittee shall limit the sulfur content of liquid fuel combusted in EU ID MXG-101 to no more than 0.16 percent by weight per 12 consecutive month period. This condition applies when operating within the area defined by the Red Dog Mine Ambient Boundary specified in Section 4.

28.1 Monitor, record, and report in accordance with Condition 15.

[Condition 10, Minor Permit No. AQ0290MSS06 Rev. 1, 5/5/09]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Stationary Source-Wide Specific Requirements

Insignificant Emission Units

29. For EU IDs MT-1 through MT-4 and EU ID MH-4 (Emulsion Plant Boiler, EU Name 14-108) listed in Table A, and emission units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

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

29.2 **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)]

29.3 **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)]

29.4 **General MR&R for Insignificant Emission Units**

a. The Permittee shall submit the certification of compliance of Condition 103 based on reasonable inquiry;

b. The Permittee shall comply with the requirements of Condition 81;

c. The Permittee shall report in the operating report required by Condition 102 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; and

d. No other monitoring, recordkeeping or reporting is required, except as provided in Conditions 52 through 66 for EU ID MH-4 (Emulsion Plant Boiler, EU Name 14-108).

[18 AAC 50.346(b)(4)]

Section 4. Public Access Control Plan and General Requirements for Ambient Air Quality Protection

30. Mine Boundary. The Permittee shall prohibit the general public from entering the area within the boundary shown as the Mine Site Ambient Air Extension 1999 on the map in Section 15 as follows:

30.1 The Permittee shall maintain written agreements with NANA Regional Corporation, Inc. (NANA) and the Alaska Department of Natural Resources (ADNR) that provide the Permittee with the legal right to restrict the general public from accessing the lands within the boundary shown as the Mine Site Ambient Air Extension 1999 that are leased to the Permittee by NANA and ADNR. The lands leased to the Permittee by NANA and ADNR are shown on the map attached to this permit. In the event the Permittee no longer possesses the legal ability to prevent the general public from accessing the lands leased by NANA or ADNR to the Permittee, the Permittee shall promptly notify the Department.

30.2 The Permittee shall install signs along the boundary shown as the Mine Site Ambient Air Extension 1999 on the map in Section 15 in the following locations:

a. Site #18 on the attached map, which is directly adjacent to the DeLong Mountain Transportation System (DMTS) road at the boundary shown as the Mine Site Ambient Air Extension 1999.

b. Site #19 shown on the attached map, which is within the drainage of Red Dog Creek, approximately ½ mile upstream from the confluence with Ikalukrok Creek.

c. Sites #20, 21 and 22 shown on the attached map, along the east and southeast side of the boundary shown as the Mine Site Ambient Air Extension 1999.

d. Site #23 shown on the attached map, which is outside the building known as the Personnel Accommodations Complex.

30.3 The Permittee shall construct, install and maintain each sign as follows:

a. The sign must measure 6 feet wide by 4 feet high and be mounted on posts where the view plain of the sign is free of obstructions.

b. The sign at Site #18 must read as described in Condition 32.4 of this section.

c. The signs at Sites #19, 20, 21, 22 and 23 must read in clearly legible, large font:

RED DOG MINE OPERATIONS

INDUSTRIAL AREA

DANGER

OPEN PIT MINING AND BLASTING IN PROGRESS

NO UNAUTHORIZED VISITORS BEYOND THIS POINT

30.4 The Permittee shall inspect each sign semi-annually and promptly repair or replace the sign as necessary to maintain its lettering and mounting. The Permittee shall take necessary actions to keep the view plain of the sign clear.

31. Airport. The Permittee shall prohibit the general public from using the airport that is located within boundary shown as the Mine Site Ambient Air Extension 1999. In addition, the Permittee shall:

31.1 Post a metal sign on the control tower at the airport which reads in clearly legible, large font:

PRIVATE AIRPORT

Operated by Teck Alaska Incorporated

No planes are authorized to land here without the express permission of Teck Alaska Incorporated Management.

Unauthorized aircraft landing at this facility are asked to proceed to the air tower and call 754-5147/48 for further instructions.

31.2 Inspect the sign semi-annually and promptly repair or replace the sign as necessary to maintain its lettering and mounting; and

31.3 Take necessary actions to keep the view plain of the sign clear.

32. DeLong Mountain Regional Transportation System Road (DMTS). The DMTS and material sites adjacent to the DMTS are shown on the map in Section 15. The Permittee shall limit access to the DMTS and to material sites adjacent to the DMTS as follows:

32.1 Limit vehicular use to authorized users. Authorized user means one of the following while conducting official business in relation to the stationary source: a Federal and State employee, an employee of the Permittee, an employee of a contractor retained by Permittee to maintain, expand, or reclaim the road, or an employee or representative of NANA.

32.2 Authorized users shall yield to any unauthorized traffic along the DMTS Road and immediately contact the Permittee's Road Supervisor, or his designee, by radio to inform him of any unauthorized traffic. The Road Supervisor, or his designee, shall attempt to stop the unauthorized traffic, counsel the driver about the hazards of driving on the DMTS and ask the driver to observe the restrictions on the road's use. When counseling an unauthorized driver, the Road Supervisor, or his designee, will inform the driver that unhealthy levels of fugitive dust may be present in the vicinity of vehicular traffic and areas where dust is present must be avoided.

32.3 The Permittee shall install signs at the following locations:

a. Site #18 shown on the attached map, which is at the north end of the DMTS;

b. Site #5 shown on the attached map, which is at the south end of the DMTS.

32.4 The Permittee shall construct, install and maintain each sign as follows:

a. The sign must measure 6 feet wide by 4 feet high and be mounted on posts where the view plain of the sign is free of obstructions.

b. The sign must read in clearly legible, large font:

RED DOG MINE AND HAUL ROAD OPERATIONS

INDUSTRIAL AREA

DANGER

HEAVY INDUSTRIAL EQUIPMENT AND MACHINERY IN USE

CONCENTRATE HAUL ROAD TRUCKS ON ROAD

NO UNAUTHORIZED VISITORS OR PERSONNEL

BEYOND THIS POINT

32.5 The Permittee shall inspect each sign semi-annually and promptly repair or replace the sign as necessary to maintain its lettering and mounting. The Permittee shall take necessary actions to keep the view plain of the sign clear.

33. Trail Crossing. Two distinct winter trails cross the DMTS at three separate locations, shown on the map attached to this permit. The Permittee shall take the following measures to protect the general public at the locations where the trail crosses the DMTS:

33.1 When a member of the general public is seen within 100 yards of the DMTS, the Permittee shall require authorized users of the DMTS to stop their vehicles at least 100 yards prior to a trail crossing and not resume travel until the member of the general public has moved at least 100 yards beyond the centerline of the DMTS.

33.2 At each trail crossing, the Permittee shall install signs on the DMTS warning drivers to stop in the event trail traffic approaches to within 100 yards of the DMTS. At a minimum, the Permittee shall install signs at Sites #6, 8, 10, 12, 14 and 16 shown on the map attached to this permit. The signs must be situated so a driver can observe the sign traveling in either direction on the DMTS and take actions to stop 100 yards from a trail crossing.

33.3 The Permittee shall construct, install and maintain each sign at the trail crossings on the DMTS as follows:

a. The sign must measure 6 feet wide by 4 feet high and be mounted on posts where the view plain of the sign is free of obstructions.

b. The sign must read in clearly legible, large font:

WINTER TRAIL INTERSECTION WITH
DELONG MOUNTAIN TRANSPORTATION SYSTEM
(DMTS)
CAUTION
STOP AND YIELD TO TRAIL TRAFFIC IF
APPROACHING WITHIN 300 FEET OF THE ROAD

33.4 The Permittee shall inspect each sign semi-annually and promptly repair or replace the sign as necessary to maintain its lettering and mounting. The Permittee shall take necessary actions to keep the view plain of the sign clear.

33.5 At each trail crossing, the Permittee shall post signs along the trail instructing travelers not to cross the DMTS if traffic is present. In the event a traveler violates this instruction, the Permittee's Port Road Supervisor, or his designee, shall attempt to contact the traveler, counsel the traveler about the hazards of crossing the DMTS and ask the traveler to observe the restrictions on the road's use. When counseling a traveler, the Road Supervisor, or his designee, will inform the traveler that unhealthy levels of fugitive dust may be present in the vicinity of vehicular traffic and areas where dust is present must be avoided.

33.6 At each trail crossing, the Permittee shall install signs along the trail on each side of the DMTS warning travelers to stop in the event DMTS traffic approaches to within 100 yards of the trail crossing. At a minimum, the Permittee shall install signs at Sites #7, 9, 11, 13, 15 and 17 shown on the map in Section 15. The signs must be situated so a traveler can observe the sign and take actions to stop at least 100 yards from where the trail crosses the DMTS.

33.7 The Permittee shall construct, install and maintain each sign as follows:

a. The sign must measure 6 feet wide by 4 feet high and be mounted on posts where the view plain of the sign is free of obstructions.

b. The sign must read in clearly legible, large font:

WINTER TRAIL INTERSECTION WITH
DELONG MOUNTAIN TRANSPORTATION SYSTEM (DMTS)
INDUSTRIAL AREA
DANGER
HEAVY INDUSTRIAL EQUIPMENT AND MACHINERY IN USE
DO NOT CROSS IF TRAFFIC IS PRESENT
USE OF THE DMTS ROAD AND PORT, EXCEPT FOR CROSSING,
IS RESTRICTED TO AUTHORIZED PERSONNEL ONLY

c. The Permittee shall inspect each sign semi-annually and promptly repair or replace the sign as necessary to maintain its lettering and mounting. The Permittee shall take necessary actions to keep the view plain of the sign clear.

[Section 14, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)]

Section 5. Federal Requirements

Emission Units Subject to Federal NSPS, Subpart A

34. NSPS Subpart A Notification. For any affected facility[9] or existing facility[10] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Department and EPA written or electronic notification of:

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

34.1 the date that construction or reconstruction of an affected facility commences postmarked no later than 30 days after such date;

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

34.2 the actual date of initial startup of an affected facility postmarked within 15 days after such date;

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

34.3 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]

34.4 the date of a continuous monitoring system performance demonstration, postmarked not less than 30 days prior to such date;

[40 C.F.R. 60.7(a)(5), Subpart A]

34.5 the anticipated date for conducting the opacity observations required by 40 C.F.R. 60.11(e)(1), including, if appropriate, a request for the Department to provide a visible emissions reader during a performance test, postmarked not less than 30 days prior to such date;

[40 C.F.R. 60.7(a)(6), Subpart A]

[9] *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.

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

34.6 that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required in lieu of Method 9 observation data as allowed by 40 C.F.R. 60.11(e)(5), postmarked not less than 30 days prior to the date of the performance test; and

[40 C.F.R. 60.7(a)(7), Subpart A]

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

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

a. the name and address of owner or operator,

b. the location of the existing facility,

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

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

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

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

g. a discussion of any economic or technical limitations the facility may have in complying with the applicable New Source Performance Standards after the proposed replacements.

35. 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 MG-26, MD-1 through MD-4, MD-6 through MD-10, MF-1[11] through MF-4, and PRC-1 through PRC-11, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for EU IDs MD-2 or MD-3 is inoperative.

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

36. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit to the Department and to EPA a written "excess emissions and monitoring systems performance report" (EEMSP)[12] any time a limit in Condition 43.1a has been exceeded for EU IDs MD-2 or MD-3 as described in this condition. Submit the EEMSP reports with the summary report form as required in Condition 36. 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]

[11] See footnote 1.
[12] The Federal EEMSP report is not the same as the State excess emission report required by Condition 101.

36.1 The magnitude of excess emissions computed in accordance with Condition 42.4, 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]

36.2 Identification of each period of excess emissions that occurred during startup, shutdown, and malfunction of EU ID(s) MD-2 and MD-3, the nature and cause of any malfunction, and the corrective action taken or preventative measures adopted.

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

36.3 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]

36.4 A statement indicating whether or not any excess emissions occurred or the CMS was inoperative, repaired, or adjusted, at any time during the reporting period.

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

37. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A) for each pollutant monitored for EU ID(s) MD-2 and MD-3. The report shall be submitted semiannually, postmarked by the 30th day following the end of each 6-month period, except when more frequent reporting is specifically required by an applicable subpart, case-by-case basis, or the EPA, as follows:

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

37.1 If the total duration of excess emissions for the reporting period is less than one percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than five percent of the total operating time for the reporting period, submit a summary report form **unless** the EEMSP report described in Condition 36 is requested, or

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

37.2 If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP** described in Condition 36.

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

38. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to the applicable requirements of 40 C.F.R. 60.8 and Section 7 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]

39. 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 MG-26, MD-1 through MD-4, MD-6 through MD-10, MF-1[13] through MF-4, and PRC-1 through PRC-11, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records and inspections of EU IDs MG-26, MD-1 through MD-4, MD-6 through MD-10, MF-1[14] through MF-4, and PRC-1 through PRC-11.

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

40. 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 Condition 43, nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs MG-26, MD-1 through MD-4, MD-6 through MD-10, MF-1[15] through MF-4, and PRC-1 through PRC-11 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]

41. NSPS Subpart A Concealment of Emissions. The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Condition 43. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

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

42. NSPS Subpart A, Monitoring. For a Continuous Monitoring System (CMS) required under Condition 43.4, the Permittee shall:

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

42.1 Install and operate the CMS prior to a performance test conducted under Condition 38, including completion of manufacturer's written requirements or recommendations for installation, operation, and calibration of device.

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

[13] See footnote 1.
[14] See footnote 1.
[15] See footnote 1.

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

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

42.3 Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 42.2, keep all CMS's in operation continuously and as follows:

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

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

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

42.4 Reduce data in accordance with:

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

a. Reduce all data to 1-hour averages computed from four or more data points equally spaced over each one-hour period.

b. Do not include data recorded during periods of CMS breakdowns, repairs, calibration checks, and zero and span adjustments in the data averages computed under this condition.

c. Convert all excess emission into units of the standard used in Condition 43.1a, after conversion the Permittee may round data to the same number of significant digits as used in the condition.

d. The Permittee may use an arithmetic or integrator average of all data, and record data in reduced or non-reduced form (e.g., ppm pollutant percent O_2 or ng/J of pollutant).

Metallic Mineral Processing Units Subject to NSPS Subpart LL

43. NSPS, Subpart LL. For EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-1[16] through MF-4, the Permittee shall comply with the applicable requirements of the following:

43.1 **Particulate Matter and Opacity Standards.** No owner or operator subject to the provisions of 40 C.F.R. 60, Subpart LL shall cause to be discharged into the atmosphere from an affected facility any stack emissions that:

a. contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.02 g/dscm); and

b. exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device.

[16] See footnote 1.

43.2 On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of 40 C.F.R. 60, Subpart LL shall cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10 percent opacity.

[18 AAC 50.040(a)(2)(X)]
[40 C.F.R. 60.382(a) & (b), Subpart LL]

43.3 **PM and Opacity Recurring Testing.** The Permittee shall demonstrate compliance with Condition 43.1 as follows:

a. **Initial Stack Test**: For EU ID MD-10, conduct the source test in accordance with Condition 43.6 no later than 12 months after issuance of this permit.

b. **Recurring Stack Test**: On a representative unit as specified in Condition 43.3b(i), conduct the source test in accordance with Condition 43.6 within 5 years of the latest performance test, or within 1 year of the date of issue of this permit if the last source test occurred greater than five years prior to issuance of this permit; and repeat the source test every five years thereafter.

(i) The representative units to be tested shall be: MF-1; one of MD-1 and MD-6; one of MD-2 and MD-3; MD-4; one of MD-7[17] and MD-8; and one of MD-9 and MD-10. Subsequent recurring testing of paired units shall be performed on the emission unit not tested in the prior source test.

c. For MF-1, and MD-7 through MD-10, also monitor, record and report in accordance with Conditions 3 through 5 to demonstrate compliance with the opacity limit of Condition 43.1b.

d. For MD-1, MD-4, MD-6, if required by Condition 20, also monitor, record and report in accordance with Conditions 3 through 5 to demonstrate compliance with the opacity limit of Condition 43.1b.

e. For MF-4, monitor, record and report in accordance with Conditions 3 through 5 to demonstrate compliance with the opacity limit of Condition 43.2.

f. Record and report results of the source tests performed in accordance with Condition 43.3a or 43.3b in accordance with Section 7.

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

[17] See footnote 1.

43.4 **Monitoring of Wet Scrubber Operations.** The owner or operator subject to 40 C.F.R. 60, Subpart LL shall, for EU IDs MD-2 and MD-3, install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the:

a. change in pressure of the gas stream through the scrubber for any affected facility using a wet scrubbing emission control device. The monitoring device must be certified by the manufacturer to be accurate within ±250 Pascals (±1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

b. scrubbing liquid flow rate to a wet scrubber for any affected facility using any type of wet scrubbing emission control device. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.

[18 AAC 50.040(a)(2)(X)]
[40 C.F.R. 60.384(a) & (b), Subpart LL]

43.5 **Reporting and Recordkeeping.**

a. The owner or operator subject to the provisions of 40 C.F.R. 60, Subpart LL shall conduct a performance test and submit to the Administrator a written report of the results of the test as specified in 40 C.F.R. 60.8(a);

b. During the initial performance test of a wet scrubber, and at least weekly thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate;

c. After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ±30 percent from the average obtained during the most recent performance test; and

d. The reports required under Condition 43.5c shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

[18 AAC 50.040(a)(2)(X)]
[40 C.F.R. 60.385(a) - (d), Subpart LL]

43.6 **Test Methods and Procedures.**

a. In conducting the performance tests required in 40 C.F.R. 60.8, the owner or operator shall use as reference methods and procedures the test methods in 40 C.F.R. 60, Appendix A or other methods and procedures as specified in Section 7, except as provided in 40 C.F.R. 60.8(b).

b. The owner or operator shall determine compliance with the particulate matter standards of Condition 43.1 as follows:

(i) Method 5 or 17 shall be used to determine the particulate matter concentration. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.

(ii) Method 9 and the procedures in 40 C.F.R. 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed.

c. To comply with Condition 43.5c, the owner or operator shall use the monitoring devices in Condition 43.3 to determine the pressure loss of the gas stream through the scrubber and scrubbing liquid flow rate at any time during each particulate matter run, and the average of the three determinations shall be computed.

[18 AAC 50.040(a)(2)(X)]
[40 C.F.R. 60.386(a) - (c), Subpart LL]

Nonmetallic Mineral Processing Units Subject to NSPS Subpart OOO

EU IDs PRC-1 through PRC-11

44. NSPS, Subpart OOO Requirements. For EU IDs PRC-1 through PRC-11, the Permittee shall comply with any applicable requirement for nonmetallic mineral processing plants whose construction, modification, or reconstruction commences after August 31, 1983.

[40 C.F.R. 60.670(a)(1) & (e)]

45. NSPS Subpart OOO PM Standards. For EU IDs PRC-1 through PRC-11, the Permittee shall meet the fugitive emission limits and compliance requirements in Table 3 of 40 C.F.R. 60 Subpart OOO as follows:

45.1 For units that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008, comply with the following opacity limits:

a. 10 percent for EU IDs PRC-3 through PRC-6 and PRC-8 through PRC-11 (grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations); and

b. 15 percent for EU IDs PRC-2 and PRC-7 (crushers at which a capture system is not used).

45.2 The requirements in Table 3 of 40 C.F.R 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

45.3 Truck dumping of nonmetallic minerals into any screening operation, feed hopper (EU ID PRC-1), or crusher is exempt from the requirements of this section.

[40 C.F.R. 60.672(b) & (d), Table 3, Subpart OOO]
[18 AAC 50.040(a)(2)(FF) & 50.040(j); 18 AAC 50.326(j)]

45.4 **Monitoring, Record keeping and Reporting**. To demonstrate compliance with Condition 45.1, after the initial compliance test of Condition 46 the Permittee shall monitor, record and report in accordance with Conditions 6.1 through 6.3.

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

46. NSPS Subpart OOO Test Methods and Procedures. In conducting the performance tests required in 40 C.F.R. 60.8, the Permittee shall use as reference methods and procedures the test methods in Appendices A-1 through A-7 of 40 C.F.R. 60 or other methods and procedures as specified in Subpart OOO, except as provided in 60.8(b).

[40 C.F.R. 60.675(a), Subpart OOO]

46.1 In determining compliance with the particulate matter standards in 40 C.F.R. 60.672(b) or 60.672(e)(1), the Permittee shall use Method 9 of 40 C.F.R. 60, Appendix A-4 and the procedures in 40 C.F.R. 60.11, with the additions as specified in 40 C.F.R. 675(c)(1).

[40 C.F.R. 60.675(c)(1), Subpart OOO]

46.2 When determining compliance with the fugitive emissions standard for any affected facility described under 40 C.F.R. 60.672(b) or 60.672(e)(1), the duration of the Method 9 (40 C.F.R. 60, Appendix A-4) observations shall be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits shall be based on the average of the five 6-minute averages.

[40 C.F.R. 60.675(c)(3), Subpart OOO]

46.3 The Permittee may use alternative to the reference methods and procedures as specified in 40 C.F.R. 60.675(e).

[40 C.F.R. 60.675(e), Subpart OOO]

46.4 For performance tests involving only Method 9 (4 C.F.R. 60 Appendix A-4) testing, the Permittee may reduce the 30-day advance notification of performance test in 40 C.F.R. 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

[40 C.F.R. 60.675(g), Subpart OOO]

46.5 If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in 40 C.F.R. 60.671) of the affected facility, then with approval from the permitting authority, the Permittee may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

[40 C.F.R. 60.675(i), Subpart OOO]
[18 AAC 50.040(a)(2)(FF) & 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6 (a)(1)]

47. NSPS Subpart OOO Reporting and Recordkeeping. The Permittee shall submit reports as follows:

47.1 Submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 C.F.R. 60.672, including reports of opacity observations made using Method 9 (40 C.F.R. 60, Appendix A-4) to demonstrate compliance with 60.672(b), (e) and (f).

[40 C.F.R. 60.676(f), Subpart OOO]

47.2 The Subpart A requirement under 40 C.F.R. 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

[40 C.F.R. 60.676(h), Subpart OOO]

47.3 A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

a. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

b. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

[40 C.F.R. 60.676(i), Subpart OOO]

c. Notifications and reports required under Subpart OOO and under Subpart A of this part to demonstrate compliance with Subpart OOO need only to be sent to the EPA Region or the State which has been delegated authority according to 40 C.F.R. 60.4(b).

[40 C.F.R. 60.676(k), Subpart OOO]
[18 AAC 50.040(a)(2(FF) & 50.040(j); 18 AAC 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

Stationary Compression Ignition Internal Combustion Engines Subject to NSPS Subpart IIII

EU ID MG-26

48. NSPS Subpart IIII Requirements. For EU ID MG-26, the Permittee shall comply with any applicable requirement for stationary compression ignition (CI) internal combustion engine (ICE) whose construction[18], modification[19], or reconstruction[20] commences after July 11, 2005, and where the stationary CI ICE is manufactured after April 1, 2006.

[18] For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
[19] As defined in 18 AAC 50.990(59).

48.1 Operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the Permittee may only change those settings that are permitted by the manufacturer.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4200(a)(2)(i), 60.4206, & 60.4211(a)]

48.2 Comply with the applicable provisions of Subpart A as specified in Table 8 to Subpart IIII.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4218 & Table 8]

48.3 **Initial Notification**. For stationary CI ICE EU ID MG-26, which is an emergency stationary ICE, the Permittee is not required to submit an initial notification.

[40 C.F.R. 60.4214(b)]

48.4 **NSPS Subpart IIII Emission Standards.** The Permittee shall comply with the applicable emission standards for emergency engine EU ID MG-26, as listed below.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4205(b), Subpart IIII]

a. The Permittee shall certify to the following emission standards for new nonroad CI engines in 40 C.F.R. 60.4202, as provided in Conditions 48.4a(i) through 48.4a(iii) below, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(i) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards specified in Condition 48.4a(i)(A) below.

[20] As defined in 18 AAC 50.990(88).

(A) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 C.F.R. 89.112 and 40 C.F.R. 89.113 for all pollutants beginning in model year 2007.

(ii) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 C.F.R. 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(A) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(iii) Notwithstanding the requirements in Condition 48.4a(i), stationary emergency CI internal combustion engines identified in Condition 48.4a(i) may be certified to the provisions of 40 C.F.R. Part 94 or, if Table 2 to 40 C.F.R. 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 C.F.R. Part 1042, if the engines will be used solely in either or both of the following locations:

(A) Areas of Alaska not accessible by the FAHS.

[40 C.F.R. 60.4205(b), 60.4202(a)(2),(e)(1)&(g)(1), & Table 2, Subpart IIII]
[40 C.F.R. 89.112, 40 C.F.R. 89.113, Subpart B]
[40 C.F.R. 1039.104, 105, 107, 115, Subpart B]
[40 C.F.R. Part 94, 40 C.F.R. Part 1042]

48.5 **NSPS Subpart IIII Monitoring, Compliance and Recordkeeping.** The Permittee shall meet the following requirements:

[40 C.F.R. 60.4209(a), Subpart IIII]

a. For EU ID MG-26, install a non-resettable hour meter prior to startup of the engine.

[40 C.F.R. 60.4209(a), Subpart IIII]

b. For EU ID MG-26, demonstrate compliance according the methods specified in Conditions 48.5b(i) and 48.5b(ii):

(i) Purchase an engine certified to the emission standards in § 60.4205(b), as provided in Condition 48.4, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except if permitted in accordance with 40 C.F.R. 4211(g).

(ii) Operate the emergency stationary ICE according to the requirements in Conditions 48.5b(ii)(A) through 48.5b(ii)(C). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in Conditions 48.5b(ii)(A) through 48.5b(ii)(C), is prohibited. If you do not operate the engine according to the requirements in Conditions 48.5b(ii)(A) through 48.5b(ii)(C), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines

(A) There is no time limit on the use of emergency stationary ICE in emergency situations.

(B) You may operate your emergency stationary ICE for any combination of the purposes specified in Condition 48.5b(ii)(B)(1) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 48.5b(ii)(C) counts as part of the 100 hours per calendar year allowed by this Condition 48.5b(ii)(B).

(1) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(C) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 48.5b(ii)(B). The 50 hours per calendar year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. 60.4211(c)&(f), Subpart IIII]

(iii) Keep records of the time of operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter, and the reason the engine was in operation during that time.

(iv) Keep records of:

(A) Maintenance conducted on the engine;

(B) If the stationary CI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards; and

(C) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

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

49. NSPS Subpart IIII Fuel Requirements. The Permittee shall comply with the applicable fuel requirements in 40 C.F.R. 60.4207, and as provided under 40 C.F.R. 60.4216, for engine EU ID MG-26 operated in Alaska, as follows:

49.1 Beginning October 1, 2010, for stationary CI ICE with a displacement of less than 30 liters per cylinder, use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

49.2 For stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS, the Permittee may meet the requirements of Subpart IIII by manufacturing and installing engines meeting the requirements of 40 C.F.R. Parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 C.F.R. Parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of Subpart IIII.

49.3 For pre-2011 model year stationary CI ICE, the Permittee may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of Condition 49.1 or 49.2 beyond the date required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the Permittee is required to submit a new petition to the Administrator.

49.4 The Permittee may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of Condition 49.1 or 49.2. The Permittee must demonstrate in the petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

[18 AAC 50.040(a)(2), 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 60.4207(b) & 60.4216(b) – (f), Subpart IIII]
[40 C.F.R. 80.510(a) & (b), Subpart I]

Emission Units Subject to Federal NESHAPS Subpart A

(EU IDs MG-1 through MG-6, MG-11 through MG-22, MG-26, MH-1 through MH-3, and MH-5)

50. NESHAP Subpart A General Requirements.

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

50.1 For EU IDs MG-1 through MG-6, and MG-11 through MG-22, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Table 8 to Subpart ZZZZ.

[40 C.F.R. 63.6665 & Table 8, Subpart ZZZZ]

50.2 For EU IDs MH-1 through MH-3 and MH-5, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in Subpart DDDDD Table 10.

[40 C.F.R. 63.7565 & Table 10, Subpart DDDDD]

Stationary Reciprocating Internal Combustion Engines (RICE) Subject to NESHAPs Subpart ZZZZ

(EU IDs MG-1 through MG-6, MG-11 through MG-22, and MG-26)

51. NESHAP Subpart ZZZZ Requirements for New RICE. For EU ID MG-26, the Permittee must meet the requirements of NESHAP Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60, Subpart IIII, as provided at Conditions 48 and 49. No further requirements apply for such engines under this part.

[40 C.F.R. 63.6590(c)(6)]

52. NESHAP Subpart ZZZZ Compliance Deadline for Existing RICE. For EU IDs MG-1 through MG-6 and MG-11 through MG-22, the Permittee shall comply with the applicable requirements of Conditions 53 through 57 beginning no later than May 3, 2013, except as indicated in Condition 54.7a.

[40 C.F.R. 63.6595(a)(1), Subpart ZZZZ]
[18 AAC 50.040(c)(23) & (j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

53. NESHAP Subpart A Requirements for Non-Emergency Engines (EU IDs MG-1 through MG-6 and MG-13 through MG-18).

53.1 **Test Notifications.**

a. Notify EPA Region 10 and the Department in writing of the intent to conduct a performance test (e.g., the test required under Condition 54.7 and any subsequent performance tests) at least 60 days before the performance test is scheduled to begin as required in 40 C.F.R. 63.7(b)(1). Notification under this condition satisfies the 10-day notification requirement of Condition 93.

b. If after providing the notice required under Condition 53.1a there is a delay in conducting the scheduled performance test due to unforeseeable circumstances beyond the Permittee's control, the Permittee must notify EPA Region 10 and the Department as soon as practicable prior to the scheduled performance test date and specify the date when the performance test is rescheduled as required in 40 C.F.R. 63.7(b)(2).

[40 C.F.R. 63.6645(a) & (g), 63.6665 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.7(b)(1) and (2), Subpart A]

53.2 **Test Plans.** When conducting a performance test, develop a site-specific test plan for submittal to the Department as required under Condition 92. Upon request, also submit the plan to the Administrator for approval, in accordance with the requirements of 40 C.F.R. 63.7(c)(1) – (4).

[40 C.F.R. 63.6645(a), 63.6665 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.7(c), Subpart A]

53.3 **Alternative Methods.** Performance testing may be conducted using an alternative method approved by the Administrator in accordance with 40 C.F.R. 63.8(f)(4)(i) – (iv).

[40 C.F.R. 63.6645(a)(2), 63.6665 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.8(f)(4), Subpart A]

53.4 **Performance Test Reports.** Submit to EPA Region 10 and the Department the results of the performance test required under Condition 54.7 and any subsequent performance tests, before the close of business on the 60th day following completion of the performance test according to 40 C.F.R. 63.9(h)(2) and 40 C.F.R. 63.10(d)(2).

[40 C.F.R. 63.6645(a) & (h), 63.6665 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.9(h)(2), 63.10(d)(2), Subpart A]

54. NESHAP Subpart ZZZZ Requirements. For EU IDs MG-1 through MG-6 and MG-11 through MG-22, the Permittee shall comply with the following requirements:

NESHAP Subpart ZZZZ General Monitoring, Operation, and Maintenance Requirements

54.1 **Good Air Pollution Control Practices.** At all times, operate and maintain EU IDs MG-1 through MG-6 and MG-11 through MG-22, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of EU IDs MG-1 through MG-6 and MG-11 through MG-22.

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

54.2 For EU IDs MG-11, MG-12, and MG-19 through MG-22, the Permittee shall comply with either:

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

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

[40 C.F.R. 63.6625(e), and Table 6 (Item 9) of Subpart ZZZZ]

54.3 **Startup and Idle Time.** For EU MG-1 through MG-6 and MG-11 through MG-22, 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]

54.4 **Operating Time Limits.** Comply with the following operating time limits for EU IDs MG-11, MG-12, and MG-19 through MG-22:

a. Any operation of EU IDs MG-11, MG-12, and MG-19 through MG-22, for purposes other than emergency operation, maintenance and testing as described in Condition 54.4c, and operation in non-emergency situations for up to 50 hours per calendar year, as allowed in Condition 54.4d, is prohibited.

b. There is no time limit on the use of EU IDs MG-11, MG-12, and MG-19 through MG-22, in emergency situations.

c. EU IDs MG-11, MG-12, and MG-19 through MG-22, 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 these units is limited to 100 hours per calendar year per engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

d. Each of EU IDs MG-11, MG-12, and MG-19 through MG-22, 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 maintenance and testing under Condition 54.4c. The 50 hours per calendar year under non-emergency situations cannot 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)(1), Subpart ZZZZ]

e. Monitor the operating time of MG-11, and MG-12, and MG-19 through MG-22, using a non-resettable hour meter.

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

54.5 For EU IDs MG-1 through MG-6 and MG-13 through MG-18, the Permittee shall:

a. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee shall monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

b. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.

[40 C.F.R. 63.6635, Subpart ZZZZ]

NESHAP Subpart ZZZZ Emissions Limitations and Associated Initial Compliance Monitoring (EU IDs MG-1 through MG-6 and MG-13 through MG-18)

54.6 Except during periods of startup, emissions from EU IDs MG-1 through MG-6, and MG-13 through MG-18 shall be limited as follows:

a. For EU IDs MG-13 and MG-16, limit the concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2.

[40 C.F.R. 63.6602 and Table 2c (Item 3) of Subpart ZZZZ]

b. For EU IDs MG-14 and MG-15:

(i) Limit the concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or

(ii) Reduce CO emissions by 70 percent or more.

[40 C.F.R. 63.6602 and Table 2c (Item 4) of Subpart ZZZZ]

c. For EU IDs MG-1 through MG-6, MG-17, and MG-18:

(i) Limit the concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or

(ii) Reduce CO emissions by 70 percent or more.

[40 C.F.R. 63.6600 and Table 2c (Item 5) of Subpart ZZZZ]

54.7 The Permittee shall comply as follows:

a. For EU IDs MG-1 through MG-6 and MG-13 through MG-18, except as allowed by 40 C.F.R. 63.7(a)(2), conduct initial performance tests according to the procedures specified in Subpart ZZZZ, Table 4, Item 1 or 3 and 40 C.F.R. 63.6620 within 180 days of the compliance date of May 3, 2013 (i.e., by October 30, 2013) [21].

[40 C.F.R. 63.6610 & 63.6612, Subpart ZZZZ]

b. For EU IDs 13 through MG-16, initial compliance with Condition 54.6a shall be determined according to 40 C.F.R. 63, Subpart ZZZZ, Table 5, Item 11 or 12.

[40 C.F.R. 63.6630 and & Table 5 of Subpart ZZZZ]

c. For EU IDs MG-1 through MG-6, MG-17, and MG-18, initial compliance with Condition 54.6c shall be determined according to 40 C.F.R. 63, Subpart ZZZZ, Table 5, Item 1 or 2.

(i) The Permittee shall comply with Condition 55.

[40 C.F.R. 63.6630 & Table 5 of Subpart ZZZZ]

d. For EU IDs MG-1 through MG-6 and MG-13 through MG-18, conduct subsequent performance tests every 8,760 hours of operation or 3 years, whichever comes first.

[40 C.F.R. 63.6615 & Table 3 of Subpart ZZZZ]

e. Submit the results of the initial performance test according to Condition 53.4.

[40 C.F.R. 63.6645(h), Subpart ZZZZ]

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

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

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

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

(v) 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.

[40 C.F.R. 63.6612(b), Subpart ZZZZ]

[21] 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.

NESHAP Subpart ZZZZ Crankcase System Requirements

54.8 For EU IDs MG-1 through MG-6, MG-14 and MG-15, the Permittee shall comply with the Condition 54.8a or 54.8b. The Permittee must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements.

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

b. 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.

[18 AAC 50.040(c)(23)]
[40 C.F.R. 63.6625(g), Subpart ZZZZ]

NESHAP Subpart ZZZZ Emissions Management Practices

54.9 For EU IDs MG-11, MG-12, and MG-19 through MG-22, comply with the following, except as allowed by Condition 54.10:

a. Change the oil and filter every 500 hours of operation or annually, whichever comes first[22];

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. 63.6602 and Table 2c (Item 1) of Subpart ZZZZ]

54.10 If any of EU IDs MG-11, MG-12, and MG-19 through MG-22, is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required under Condition 54.9, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice required under Condition 54.9 should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated.

[40 C.F.R. 63, Footnote 1 to Table 2c of Subpart ZZZZ]

[22] 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 Condition 54.9a. [ref. 40 C.F.R. 63, Subpart ZZZZ, Table 2c, footnote 2]

NESHAP Subpart ZZZZ Operating Limitations

54.11 For EU IDs MG-1 through MG-6, MG-17, and MG-18, comply with the following:

a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and

b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 degrees Fahrenheit (°F) and less than or equal to 1350°F.[23]

[40 C.F.R. 63.6600 & Table 2b of Subpart ZZZZ]

NESHAP Subpart ZZZZ Fuel Requirements

54.12 By May 3, 2013, diesel fuel used in EU IDs MG-1 through MG-6 and MG-13 through MG-18 must meet the requirements stated in 40 C.F.R. 80.510(b) for nonroad diesel fuel[24].

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

b. Monitor, record, and report according to Condition 15.

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

NESHAP Subpart ZZZZ Continuous Parameter Monitoring System Requirements

55. Continuous Parameter Monitoring System (CPMS). For EU IDs MG-1 through MG-6, MG-17, and MG-18, install, operate, and maintain each CPMS in accordance with Conditions 55.1 through 55.6.

55.1 The Permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs 55.1a through 55.1e of this section and in 40 C.F.R 63.8(d). As specified in 40 C.F.R 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs 55.1 through 55.6 of this section in your site-specific monitoring plan.

a. The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

b. Sampling interface (*e.g.*, thermocouple) location such that the monitoring system will provide representative measurements;

[23] Sources can petition the Administrator pursuant to the requirements of 40 C.F.R. 63.8(g) for a different temperature range.
[24] The compliance date in 40 C.F.R. 80.510 is June 1, 2010, however the Subpart ZZZZ compliance date is May 3, 2013.

c. Equipment performance evaluations, system accuracy audits, or other audit procedures;

d. Ongoing operation and maintenance procedures in accordance with provisions in 40 C.F.R 63.8(c)(1)(ii) and (c)(3); and

e. Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 C.F.R 63.10(c), (e)(1), and (e)(2)(i).

55.2 The Permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

55.3 The CPMS must collect data at least once every 15 minutes.

55.4 For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

55.5 The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

55.6 The Permittee must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

[40 C.F.R. 63.6625(b) & Table 5 of Subpart ZZZZ]

NESHAP Subpart ZZZZ Reporting

56. Reporting. The Permittee shall report as follows:

56.1 Include in the operating report required by Condition 102 a report of Subpart ZZZZ deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 of Subpart ZZZZ) was not met.

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

56.2 If there are no deviations from any emission limitations or operating limitations that apply, submit a statement that there were no deviations from the emission limitations or operating limitations during the reporting period.

56.3 If you had a deviation from any emission limitation or operating limitation during the reporting period, report under Condition 101 the information required by 40 C.F.R. 63.6650 and Table 7 of Subpart ZZZZ.

[18 AAC 50.040(c)(23) & 50.326(j)]
[40 C.F.R. 63.6650 & Table 7 of Subpart ZZZZ]

56.4 Notify the Department per Condition 101 if any of the requirements in Conditions 52 through 57 were not met.

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

NESHAP Subpart ZZZZ Recordkeeping

57. Recordkeeping. For EU IDs MG-1 through MG-6 and MG-11 through MG-22, keep the following records beginning no later than May 3, 2013:

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

57.1 Records of maintenance conducted on each of EU IDs MG-11, MG-12, and MG-19 through MG-22 to demonstrate that the engine and after-treatment control device (if any) are operated and maintained according to the Permittee's own maintenance plan, if maintenance is performed as allowed under Condition 54.2b. 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(e), 75 FR 9654, Subpart ZZZZ]

57.2 Records of the hours of operation for each of EU IDs MG-11, MG-12, and MG-19 through MG-22, including:

a. the number of hours spent for emergency operation and a description of what classified the operation as an emergency; and

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

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

57.3 For EU IDs MG-1 through MG-6, MG-11 through MG-22, keep applicable records described in 40 C.F.R. 63.6655.

[40 C.F.R. 63.6655(a), (b) & (d), Subpart ZZZZ]

57.4 Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form, for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record pertaining to 40 C.F.R Part 63 applicable requirements.

[40 C.F.R. 63.6660, 63.6665 & Table 8, Subpart ZZZZ]
[40 C.F.R. 63.10(b)(1), Subpart A]

Industrial, Commercial, and Institutional Boilers and Process Heaters Subject to NESHAPs Subpart DDDDD

(EU ID MH-1 through MH-3 & MH-5)

58. NESHAP Subpart DDDDD Compliance Deadline. For EU IDs MH-1 through MH-3 and EU ID MH-5, the Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart DDDDD beginning no later than January 31, 2016.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.7495(b), Subpart DDDDD]

59. NESHAP Subpart DDDDD Notification Requirements. For EU ID MH-1 through MH-3 and EU ID MH-5, the Permittee shall comply as follows:

59.1 Submit to the Administrator all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply by the dates specified.

59.2 As specified in §63.9(b)(2), for this affected emission unit with a startup date prior to January 31, 2013, submit an Initial Notification not later than 120 days after January 31, 2013.

59.3 Submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration, submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations according to §63.10(d)(2). The Notification of Compliance Status report must contain the information specified in Conditions 59.3a and 59.3b as applicable.

a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with this subpart, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by you or the EPA through a petition process to be a non-waste under § 241.3 of this chapter, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of § 241.3 of this chapter, and justification for the selection of fuel(s) burned during the compliance demonstration.

b. In addition to the information required in §63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the required initial tune-up according to the procedures in §63.7540(a)(10)(i) through (vi)."

(ii) "This facility has had an energy assessment performed according to §63.7530(e)."

[40 C.F.R. 63.7545(a), (b) & (e), Subpart DDDDD]

60. NESHAP Subpart DDDDD Requirements. EU ID MH-1 through MH-3 and EU ID MH-5 are designated as units designed to burn light liquid fuel. The Permittee shall comply with the applicable requirements for these emission units as provided in Conditions 61 through 66.

[18 AAC 50.040(c)(23) & (j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.7495(b), Subpart DDDDD]

NESHAP Subpart DDDDD Work Practice Standards

61. Work Practice Standards. The Permittee shall comply with the following applicable requirements:

61.1 Conduct a tune-up of the boiler or process heater biennially as specified in §63.7540.

61.2 Have a one-time energy assessment performed on the major source facility by qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. The energy assessment must include:

a. A visual inspection of the boiler or process heater system.

b. An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints

c. An inventory of major energy consuming systems,

d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,

e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices,

f. A list of major energy conservation measures,

g. A list of the energy savings potential of the energy conservation measures identified, and

h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

61.3 At all times, you must operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

61.4 As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

61.5 Boilers and process heaters with a heat input capacity of less than or equal to 5 million Btu per hour in the units designed to burn gas 2 (other) fuels subcategory or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in §63.7540.

61.6 These standards apply at all times the affected unit is operating, except during periods of startup and shutdown during which time you must comply only with Table 3 to this subpart.

[40 C.F.R. 63.7500(a)(1) & (3), (b), (d) & (f), Subpart DDDDD]

NESHAP Subpart DDDDD Compliance Requirements

62. General Compliance. The Permittee must be in compliance with Condition 61 at all times EU IDs MH-1 through MH-3 and MH-5, are operating, except as indicated in Condition 61.6.

[40 C.F.R. 63.7505(a), Subpart DDDDD]

63. Initial Compliance Requirements. The Permittee shall comply as follows:

63.1 Complete an initial tune-up by following the procedures described in Conditions 64.1a through 64.1f no later than the compliance date specified in Condition 58, except as specified in Condition 63.3.

a. In accordance with Condition 59.3b(i), submit a signed statement in the Notification of Compliance Status report that indicates that the tune-up has been performed in accordance with Condition 63.1.

63.2 Complete the one-time energy assessment specified in Table 3 to Subpart DDDDD, as provided at Condition 61.2, no later than the compliance date specified in Condition 58, except as specified in Condition 63.3.

a. In accordance with Condition 59.3b(ii), submit a signed certification with the Notification of Compliance Status report that indicates that the energy assessment was completed according to Condition 63.2 and is an accurate depiction of the facility at the time of the assessment.

63.3 If EU ID MH-1 through MH-3 and MH-5 have not operated between the effective date of the rule and the compliance date specified in Condition 58, complete an initial tune-up by following the procedures described in Conditions 64.1a through 64.1f no later than 30 days after the re-start of this affected source and, if applicable, complete the one-time energy assessment specified in Condition 61.2 no later than the compliance date specified in Condition 58.

[40 C.F.R. 63.7510(e) & (j), Subpart DDDDD]
[40 C.F.R. 63.7530(d) & (e), Subpart DDDDD]

64. Continuing Compliance Requirements. The Permittee shall comply as follows:

64.1 **Recurring Tune-up Work Practice Standard**. For EU-IDs MH-1 through MH-3, conduct a 2-year performance tune-up according to§63.7540(a)(11), as specified in Conditions 64.1a through 64.1f below. Each 2-year tune-up must be conducted no more than 25 months after the previous tune-up. You may delay the burner inspection specified in Condition 64.1a until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 36 months. For EU-ID MH-5, conduct a 5-year performance tune-up according to§63.7540(a)(12), as specified in Conditions 64.1a through 64.1f below. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. You may delay the burner inspection specified in Condition 64.1a until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

f. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs 64.1f(i) through 64.1f(iii) of this section:

(i) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

(ii) A description of any corrective actions taken as a part of the tune-up; and

(iii) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

64.2 If EU IDs MH-1 through EU ID MH-3 and MH-5, are not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

64.3 **Reporting**. Report in accordance with Condition 65.

[40 C.F.R. 63.7515(d) & (g), Subpart DDDDD]
[40 C.F.R. 63.7540(a)(12) & (a)(13) and (b), Subpart DDDDD]

NESHAP Subpart DDDDD Reporting

65. Reporting. For EU IDs MH-1 through EU ID MH-3and MH-5, the Permittee shall report as follows:

65.1 For EU IDs MH-1 through MH-3, Submit only a biennial compliance report as specified in Conditions 65.1a through 65.1d, instead of a semi-annual compliance report.

a. The first compliance report must cover the period beginning on the compliance date that is specified at Condition 58 and ending on June 30 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified in Condition 58.

b. The first biennial compliance report must be postmarked or submitted no later than January 31.

c. Each subsequent biennial compliance report must cover the applicable 5-year period from January 1 to December 31.

d. Each subsequent biennial compliance report must be postmarked or submitted no later than January 31.

65.2 For EU ID MH-5, Submit only a 5-year compliance report as specified in Conditions 65.1a through 65.1d, instead of a semi-annual compliance report.

a. The first compliance report must cover the period beginning on the compliance date that is specified at Condition 58 and ending on July 31 or January 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 5 years, as applicable, if submitting an annual, biennial, or 5-year compliance report) after the compliance date that is specified in Condition 58.

b. The first 5-year compliance report must be postmarked or submitted no later than January 31.

c. Each subsequent 5-year compliance report must cover the applicable 5-year period from January 1 to December 31.

d. Each subsequent 5-year compliance report must be postmarked or submitted no later than January 31.

65.3 For this facility that is subject to the requirements of a tune up, the submitted compliance report must contain the following information:

a. Company and Facility name and address.

b. Process unit information, emissions limitations, and operating parameter limitations.

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

d. The total operating time during the reporting period.

e. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

[40 C.F.R. 63.7550(a), (b) & (c)(1) and Table 9 of Subpart DDDDD]

65.4 Include in the operating report required by Condition 102 a report of Subpart DDDDD deviations as specified at 40 C.F.R. 63.7540(b) and defined in 40 C.F.R. 63.7575, and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 10 of Subpart DDDDD) was not met.

a. Submit all reports required by Table 9, as specified by Conditions 65.1 and 65.3, electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator.

[40 C.F.R. 63.7540 (b) & §63.7550(h)(3), Subpart DDDDD]

65.5 If there are no deviations from any emission limitations or operating limitations that apply, submit a statement in the operating report required by Condition 102 that there were no deviations from the emission limitations or operating limitations during the reporting period.

65.6 Notify the Department per Condition 101 if any of the requirements in Conditions 59 through 66 were not met.

[40 C.F.R. 63.7550(b) & (c) and Table 9, Subpart DDDDD]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

NESHAP Subpart DDDDD Recordkeeping

66. Recordkeeping. For EU IDs MH-1 through MH-3, and EU ID MH-5, the Permittee shall keep records as follows:

66.1 Keep records according to Conditions 66.1a and 66.1b.

a. A copy of each notification and report that you submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii).

66.2 Maintain records of the calendar date, time, occurrence and duration of each startup and shutdown.

66.3 Maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown.

[40 C.F.R. 63.7550(a), (i) & (j), Subpart DDDDD]

66.4 Keep records in a form suitable and readily available for expeditious inspection and review, readily accessible in hard copy or electronic form, for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record pertaining to 40 C.F.R Part 63 applicable requirements. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

[40 C.F.R. 63.7560, Subpart DDDDD]
[40 C.F.R. 63.10(b)(1), Subpart A]

General Federal Requirements

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

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

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

Subpart F – Recycling and Emissions Reduction

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

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

Subpart G – Significant New Alternatives Policy (Halon)

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

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

Subpart H – Halon Emissions Reduction

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

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

NESHAPs Applicability Determinations

69. 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).

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

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

70. NSPS and NESHAP Reports. The Permittee shall:

70.1 **Reports**: Attach to the operating report required by Condition 102 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

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

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

Section 6. General Conditions

Standard Terms and Conditions

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

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

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

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

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

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

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

[18 AAC 50.326(j)(1), 50.400, 50.403, & 50.405]
[AS 37.10.052(b), 11/04 & AS 46.14.240, 8/1/07]

75. **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

75.1 the stationary source's assessable potential to emit of 5,601 TPY; or

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

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

b. material balance calculations;

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

d. other methods and calculations approved by the Department**.**

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

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

76.1 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, 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

76.2 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 75.1.

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

77. Good Air Pollution Control Practice.

77.1 Except as noted in Condition 77.1d, the Permittee shall do the following for EU ID MD-5:

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

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

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

d. EU IDs MG-1 through MG-9 and MG-11 through MG-22 are subject to this condition only until the applicable compliance date as set forth in Condition 52.

e. EU IDs MH-1 though EU ID MH-3, and EU ID MH-5 is subject to this condition only until the applicable compliance date as set forth in Condition 58.

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

77.2 In addition, the Permittee shall comply with the following:

a. Develop and provide training at the facility to orient each power plant and coarse ore crushing and conveying operator regarding the applicable terms and conditions of this permit. Maintain a log of the time, date, place, and list of attendees for each training session, and a copy of the materials presented in the training sessions.

[Condition 37.1, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

b. Develop and implement standard operation and maintenance procedures for each emission listed in Table A of this permit. Keep a copy of the procedures available at a location within the stationary source that is readily accessible to operators of the sources and to authorized representatives of the Department.

[Condition 37.2, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

77.3 The Permittee shall perform regular maintenance on emission units (PRC-1 through PRC-11 and MXG-101) considering the manufacturer's or the operator's maintenance procedures.

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

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

[Condition 2, Minor Permit No. AQ0290MSS06 Rev 1, 5/6/09]

77.4 The Permittee shall maintain EU ID MD-9 according to manufacturer's or operator's maintenance procedures.

[Condition 2, Minor Permit No. AQ0290MSS03, 8/3/06]

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

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

78. 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)]

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

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

79.1 The Permittee shall comply with the Dust Control (PM Control) Plan prepared August 1999 for the stationary source or any more recent control plan that has been approved by the Department.

79.2 The Permittee shall comply with the requirements of Condition 18.

79.3 Keep records describing all precautions taken to prevent particulate matter from becoming airborne due to any of the activities described above that are associated with the Concrete Batch Plant (MC-1), all quarry operations (MF-6), and all stockpiles and exposed areas (MF-7). If the precautions taken are not listed in the State Air Quality Control Plan, also record a statement describing why the Permittee finds the precautions to be reasonable. Reasonable precautions, as listed in the State Air Quality Control Plan, include, but are not limited, to

a. installation and use of hoods, fans, and dust collectors to enclose and vent the handling of dusty materials;

b. use of water or chemicals for dust control in the demolition of existing structures, construction operations, road grading, or land clearing; and

c. application of asphalt, oil, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can create airborne dusts.

79.4 At least once each month, perform a visual survey of air borne particulate matter from the Concrete Batch Plant (MC-1, when in operation), all quarry operations (MF-6), and all stockpiles and exposed areas (MF-7), in accordance with the procedures listed in 40 C.F.R. 60, Appendix A, Reference Method 22.

79.5 Upon discovering that particulate matter emissions are leaving the property, take corrective actions to prevent the emissions from leaving the property.

79.6 Keep contemporaneous records of all surveys performed and corrective actions taken to prevent particulate matter emissions from leaving the Red Dog Mine Ambient Boundary.

79.7 Provide a summary of the records required by this condition with the Operating Report required by Condition 102.

[Condition 32, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

79.8 The Permittee shall take reasonable precautions to prevent the release of airborne PM and fugitive dust from the rock crusher, EU IDs PRC-1 through PRC-11. Reasonable precautions for rock crushers to prevent PM from becoming airborne include, as necessary:

a. Cleanup of loose material on work surfaces;

b. Minimizing drop distances on conveyor systems and lowering loader buckers to be in contact with the surface of the soil or ground before dumping;

c. Application of water or suitable chemicals to road surfaces to prevent the generation of fugitive dust;

[Condition 12, Minor Permit No. AQ0290MSS06 Rev. 1, 5/5/09]

79.9 For all sources 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 79.8 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

79.10 The Permittee shall report according to Condition 81.

80. 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)]

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

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

81.1 For the incinerators, EU IDs MI-2 and MI-3, do not incinerate materials that give off toxic or acidic gases or particulate matter, as prohibited under Condition 84.4.

[Condition 35.2, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

81.2 Monitoring, Recordkeeping and Reporting:

a. if emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 101.

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 81.

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

a. after an investigation because of a complaint or other reason, the Permittee believes that emissions from the stationary source have caused or are causing a violation of Condition 81; or

b. the Department notifies the Permittee that it has found a violation of Condition 81.

81.4 The Permittee shall keep records of

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 81; and

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

81.5 With each operating report required under Condition 102, and for the period covered by the report, the Permittee shall include a brief summary report which must include:

a. the number of complaints received;

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

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

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

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

82. Construction or Modification. The Permittee shall obtain permit or permit revisions required by AS 46.14 or 18 AAC 50 before constructing or modifying a source. The Permittee shall not construct, operate, or modify a source that will result in a violation of the applicable emission standards or that will interfere with the attainment or maintenance of the ambient air quality standards or maximum allowable ambient concentrations. Keep records of all activities undertaken to construct or modify a source in a manner that would require a permit or permit revisions and any permits, revisions, or approvals obtained as a result of such activities. Upon request of the Department, submit copies of the records.

[Condition 38, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

83. 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[25] listed in Conditions 17, 19, and 43 through 66 the Permittee shall take all reasonable steps to minimize levels of emissions that exceed the standard. Excess emissions reporting under Condition 101 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 101.

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

[25] *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.

Open Burning Requirements

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

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

84.1 Only clean lumber and cardboard may be open burned. Quantities open burned for disposal purposes must not exceed 500 lbs/day. Total quantity of open burned clean lumber and cardboard for disposal and fire- fighting training purposes must not exceed 1,500 lbs/week.

[Condition 33.1, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

84.2 **General Requirements.** Except when conducting open burning under Condition 84.8 or 84.9, a person conducting open burning shall comply with the limitations of Conditions 84.3 through 84.7 and shall ensure that

a. the material is kept as dry as possible through the use of a cover or dry storage;

b. before igniting the burn, non-combustibles are separated to the greatest extent practicable;

c. natural or artificially induced draft is present;

d. to the greatest extent practicable, combustibles are separated from grass or peat layer;

e. combustibles are not allowed to smolder; and

f. 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.

g. Compliance with this condition shall be an annual certification conducted under Condition 103.

[Conditions 37.3 & 37.4, Construction Permit 9932-AC005 Rev. 1, 6/10/03]

84.3 **Black Smoke Prohibited.** Except for firefighter training conducted under Condition 84.9, open burning of asphalts, rubber products, plastics, tars, oils, oily wastes, contaminated oil cleanup materials, or other materials in a way that gives off black smoke is prohibited without written Department approval. Department approval of open burning as an oil spill response countermeasure is subject to the Department's In Situ Burning Guidelines for Alaska, adopted by reference in 18 AAC 50.035. Open burning approved under this subsection is subject to the following limitations:

a. the person who conducts open burning shall establish reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated; and

b. the Department will, in its discretion, as a condition of approval issued under this subsection, require public notice as described in Condition 84.10.

[18 AAC 50.065(b)]

84.4 **Toxic and Acid Gases and Particulate Matter Prohibited.** Open burning or incineration of pesticides, halogenated organic compounds, cyanic compounds, polyurethane products, or batteries in a way that gives off toxic or acidic gases or particulate matter is prohibited.

[18 AAC 50.065(c)]
[Condition 35.2, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

84.5 **Adverse Effects Prohibited.** Open burning of putrescible garbage, animal carcasses, or petroleum-based materials, including materials contaminated with petroleum or petroleum derivatives, is prohibited if it causes odor or black smoke that has an adverse effect on nearby persons or property.

[18 AAC 50.065(d)]

84.6 **Air Quality Advisory.** Open burning is prohibited in an area if the Department declares an air quality advisory under 18 AAC 50.245, stating that burning is not permitted in that area for that day.

[18 AAC 50.065(e)]
[Condition 33.2, Construction Permit No. 9932-AC005 Rev. 1, 7/16/03]

84.7 **Wood Smoke Control Areas.** Open burning is prohibited between November 1 and March 31 in a wood smoke control area identified in 18 AAC 50.025(b).

[18 AAC 50.065(f)]

84.8 **Controlled Burning.** Controlled burning to manage forest land, vegetative cover, fisheries, or wildlife habitat, other than burning to combat a natural wildfire, requires written Department approval if the area to be burned exceeds 40 acres yearly. The Department will, in its discretion, require public notice as described in Condition 84.10 of this section.

[18 AAC 50.065(g)]

84.9 **Firefighter Training - Fuel Burning.** Unless a greater quantity is approved by the Department, a fire service may open burn up to 250 gallons of uncontaminated fuel daily and up to 1000 gallons yearly for firefighter training without ensuring maximum combustion efficiency. To conduct this training without prior written Department approval, the fire service shall

a. provide public notice consistent with Condition 84.10 before burning more than 20 gallons of uncontaminated fuel, unless waived in writing by the Department; and

b. respond to complaints in accordance with Condition 84.11.

[18 AAC 50.065(i)]
[Condition 34, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

84.10 **Public Notice.** A person required to provide public notice of open burning shall issue the notice through local news media or by other appropriate means if the area of the open burning does not have local news media. The public notice must be issued as directed by the Department and must

a. state the name of the person conducting the burn;

b. provide a list of material to be burned;

c. provide a telephone number to contact the person conducting the burn before and during the burn;

d. for a surprise fire drill, state

(i) the address or location of the training; and

(ii) the beginning and ending dates of the period during which a surprise fire drill may be conducted (this period may not exceed 30 days); and

e. For open burning other than a surprise fire drill, state the expected time, date, and location of the open burning.

[18 AAC 50.065(j)]
[Condition 34.1, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

84.11 **Complaints.** A person required to provide public notice of open burning shall

a. make a reasonable effort to respond to complaints received about the burn;

b. keep, for at least 30 days, a record of all complaints received about the burn, including to the extent feasible

(i) the name, address, and telephone number of each person who complained;

(ii) a short summary of each complaint; and

(iii) any action the person conducting the open burning took to respond to each complaint; and

c. upon request, provide the Department with a copy of the records kept under Condition 84.11b.

[18 AAC 50.065(k) & 50.346(b)]
[Conditions 34.2 & 34.3, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

Section 7. General Source Testing and Monitoring Requirements

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

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

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

[18 AAC 50.220(b)]

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

86.2 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.

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

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

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

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

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

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

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

87.4 source testing for the reduction in visibility through the exhaust effluent must be conducted in accordance with the procedures set out in Reference Method 9. The Permittee may use the form in Section 12 to record data.

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

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

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

87.6 source testing for emissions of PM_{10} must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

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

87.7 source testing for emissions of ammonia must be conducted in accordance with methods and procedures for emissions of ammonia in accordance with Bay Area Air Quality Management District (BAAQMD) Source Test Procedure ST-1B, "Ammonia Integrated Sampling" and EPA Method 350.3 "Ion Specific Electrode". The Permittee may use an alternative method approved by the Department.

[Condition 39.6, Construction Permit No. 9932-AC005 Rev. 2, 7/16/03]

87.8 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]

88. Alternate Test Methods. To the extent allowed by applicable requirements, the Permittee may propose an alternative test method if it can be shown to be of equivalent accuracy and will ensure compliance with the applicable standards or limits. Until the Department approves an alternative test method requirement, the Permittee shall comply with the requirements listed in this permit.

[Condition 41, AQC Permit 9932-AC005 Rev.2, 7/16/03]

89. 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)]

90. Test Exemption. The Permittee is not required to comply with Conditions 92, 93 and 94 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.5) or Smoke/No Smoke Plan (Dust/No Dust Plan) (Condition 3.6).

[18 AAC 50.345(a)]

91. 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)]

92. Test Plans. Except as provided in Condition 90, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing and quality assurance and must specify how the emission unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 85 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)]

93. Test Notification. Except as provided in Condition 90, 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)]

94. Test Reports. Except as provided in Condition 90, 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 97. 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)]

95. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 7, 19.4, 20.2, 25.1a, 43.1a and 29.2, the three-hour average is determined using the average of three one-hour test runs. The source testing must account for those emissions caused by soot blowing, grate cleaning, or other routine maintenance activities by ensuring that at least one test run includes the emissions caused by the routine maintenance activity and is conducted under conditions that lead to representative emissions from that activity. The emissions must be quantified using the following equation:

$$E = E_M\left[(A+B)\times\frac{S}{R\times A}\right]+E_{NM}\left[\frac{R-S}{R}-B\times\frac{S}{R\times S}\right]$$

Where:

E	=	the total PM emissions of the emission unit in grains per dry standard cubic foot ((gr.)/dscf)
E_M	=	the PM emissions in (gr.)/dscf measured during the test that included the routine maintenance activity
E_{NM}	=	the arithmetic average of PM emissions in (gr.)/dscf measured during the test runs that did not include the maintenance activity
A	=	the period of routine maintenance activity occurring during the test run that included routine maintenance activity, expressed to the nearest hundredth of an hour
B	=	the total period of the test run, less A
R	=	the maximum period of emission unit operation per 24 hours, expressed to the nearest hundredth of an hour
S	=	the maximum period of routine maintenance activity per 24 hours, expressed to the nearest hundredth of an hour

[18 AAC 50.220(f)]

Section 8. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

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

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

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

96.2 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

97. Certification. The Permittee shall certify any permit application, report, affirmation, or compliance certification submitted to the Department and required under the permit by including the signature of a responsible official for the permitted stationary source following the statement: "*Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate and complete.*" Excess emission reports must be certified either upon submittal or with an operating report required for the same reporting period. All other reports and other documents must be certified upon submittal.

97.1 The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if

a. a certifying authority registered under AS 09.25.510 verifies that the electronic signature is authentic; and

b. the person providing the electronic signature has made an agreement, with the certifying authority described in Condition 97.1a, that the person accepts or agrees to be bound by an electronic record executed or adopted with that signature.

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

98. Submittals. Unless otherwise directed by the Department or this permit, the Permittee shall send an original and one copy of reports, compliance certifications and other submittals required by this permit to ADEC, Air Permits Program, 610 University Ave., Fairbanks, AK 99709-3643, ATTN: Compliance Technician. The Permittee may, upon consultation with the Compliance Technician regarding software compatibility, provide electronic copies of data reports, emission source test reports, or other records under a cover letter certified in accordance with Condition 102.

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

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

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

100. Recording Devices Malfunctions on Non-operations. If any recording device required by this permit, including fuel consumption meters, kWh meters, or operating hour indicator/recorders, is malfunctioning or nonoperable for three or more days, the Permittee shall notify the Department by telephone and in writing on the fourth day, indicating the cause of the failure and the anticipated time required to repair or replace the instrument. These reports shall be summarized in writing and submitted along with the facility operating report required by Condition 102.

[Condition 25, Operating Permit No. 9332-AA003 Am. 2, 12/4/96]

101. Excess Emissions and Permit Deviation Reports.

101.1 Except as provided in Condition 81, 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 occurred, except as provided in Condition 101.1c(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 101.1c(i).

101.2 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/ap/docs/SCIV notform Rev 9-27-10.pdf, or https://myalaska.state.ak.us/dec/air/airtoolsweb or if the Permittee prefers the form contained in Section 14 of this permit. The Permittee must provide all information called for by the form that is used.

101.3 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)]

102. Operating Reports. During the life of this permit[26], 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.

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

102.2 If excess emissions or permit deviations that occurred during the reporting period are not reported with the operating report under Condition 102.1, the Permittee shall identify:

a. the date of the deviation;

b. the equipment involved;

c. the permit condition affected;

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

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

102.3 When excess emissions or permit deviations have already been reported under Condition 101 the Permittee shall cite the date(s) or dates of those reports.

102.4 The operating report shall include for the period covered by the report a listing of emissions monitored under Conditions 3.5f and 3.6c, 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;

[26] *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.

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

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

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

103. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an original and one copy of an annual compliance certification report[27].

103.1 Certify the compliance status of the stationary source over the preceding calendar year consistent with the monitoring required by this permit, as follows:

a. identify each term or condition set forth in Section 3 through Section 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;

103.2 **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

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

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

104. 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) for the previous calendar year using the form in Section 15 of this permit, each year by March 31, as the stationary source's potential emissions exceed 2500 TPY of NO_X and 250 TPY of PM_{10}.

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

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

[27] See Condition 103.2 for clarification on the number of reports required.

Section 9. Permit Changes and Renewal

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

105.1 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[28];

105.2 the information shall be submitted to the same address as in Condition 103.3;

105.3 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

105.4 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)]

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

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

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

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

107.2 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;

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

[28] The documents required in Condition 105.1 are submitted to the Department's Anchorage office. The current address for the Anchorage office is: ADEC, 619 East Ship Creek Avenue, Suite 249, Anchorage, AK 99501.

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

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

108. 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):

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

108.2 for each such change, the written notification required by Condition 108.1 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.

108.3 the permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 108.

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

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

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

Section 10. Compliance Requirements

General Compliance Requirements

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

110.1 included and specifically identified in the permit; or

110.2 determined in writing in the permit to be inapplicable.

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

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

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

111.2 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), 50.326(j), & 50.345(a) & (c)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

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

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

113. 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

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

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

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

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

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

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

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

Section 11. 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 Red Dog Mine Facility.

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

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

115.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

[18 AAC 50.326(j)]
[40 C.F.R. 71.6(f)(3)(i) & (ii)]

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

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

Table D - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All	40 C.F.R. 60, Subparts B, C ,Ca, Cb, Cc, Cd, D, Da, Db, F, G, H, I, J, K, Ka, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, MM, NN, PP, QQ, RR, SS, TT, UU, VV, WW, XX, AAA, BBB, DDD, FFF, GGG, HHH, III, JJJ, KKK, LLL, NNN, PPP, QQQ, RRR, SSS, TTT, UUU, VVV and WWW	No affected emission units within stationary source nor is it an affected facility, operation or industry.
MI-2 and MI-3	40 C.F.R. 60, Subpart E	Each incinerator has a charging rate of less than 50 tons per day.
MI-2 and MI-3	40 C.F.R. 60, Subpart Ea	The incinerators were not constructed after December 20, 1989 and on or before September 20, 1994 and they were not reconstructed or modified after December 20, 1989 and on or before June 19, 1996. Each incinerator has a charging rate of less than 250 tons per day.
MI-2 and MI-3	40 C.F.R. 60, Subpart Eb	Each incinerator has a charging rate of less than 250 tons per day.
MI-2 and MI-3	40 C.F.R. 60, Subpart Ec	The incinerators do not burn hospital, medical or infectious waste.
MI-2 and MI-3	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).

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MI-2 and MI-3	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). Construction of each unit commenced prior to the applicability date of August 30, 1999.
MI-2 and MI-3	40 C.F.R. 60, Subpart BBBB – for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	The Permittee is not the Administrator of an air quality program in a state or United States protectorate. This notwithstanding, § 60.1550 specifies the requisite State plan must address all existing small municipal waste combustion units that (1) have the capacity to combust at least 35 tons per day of municipal solid waste but no more than 250 tons per day of municipal solid waste or refuse-derived fuel; and (2) commenced construction on or before August 30, 1999. MI-2 and MI-3 do not meet these criteria.
MI-2 and MI-3	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 May 20, 2011.
MI-2 and MI-3	40 C.F.R. 60, Subpart DDDD – Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units.	The Permittee is not the Administrator of an air quality program in a state or United States protectorate. § 60.2505(d) requires the State to submit a state plan to EPA that meets the requirements of this subpart by February 7, 2014 for CISWI units 1 commenced construction after November 30, 1999, but no later than June 4, 2010, or commenced modification or reconstruction after June 1, 2001 but no later than August 7, 2013 2 other than incinerator units that commenced construction on or before June 4, 2010 (or commenced modification or reconstruction after June 4, 2010 but no later than August 7, 2013). MI-2 and MI-3 were installed prior to June 4, 2010 and will be subject to an EPA-approved State of Alaska Implementation Plan for existing CISWI units three years after the effective date of state plan approval, or no later than February 7, 2018 in the event the State of Alaska does not have an approved plan.
MI-2 and MI-3	40 C.F.R. 60, Subpart EEEE - Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006	The incinerators were not constructed after December 9, 2004 and they were not reconstructed or modified on or after June 16, 2006.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MI-2 and MI-3	40 C.F.R. 60, Subpart FFFF - Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units That Commenced Construction On or Before December 9, 2004	This subpart applies to Administrators of an air quality program in a State or United States protectorate with one or more existing OSWI units or air curtain incinerators subject to this subpart. Pursuant to § 60.2993(d), an incinerator is not subject to the State plan if it is a commercial and industrial solid waste incineration unit regulated under 40 C.F.R. Subparts CCCC or DDDD of this part or subpart III of part 62 and is required to meet the emission limitations established in those subparts. MI-2 and MI-3 are subject to Subpart DDDD, and therefore are not subject to Subparts CCCC or Subpart FFFF.
MH-1 to MH-4	40 C.F.R. 60, Subpart Dc – Standards for small industrial-commercial-institutional steam generating units	These heaters were installed in 1988. To be applicable they would have to have been installed after June 9, 1989.
MT-1 to MT-4	40 C.F.R. 60, Subpart Kb	EU IDs MT-1 through MT-4 are storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa). Therefore, under 40 C.F.R. 60.110b(b), these units are not subject to the requirements of NSPS Subpart Kb.
MD-2 and MD-3	40 C.F.R. 60, Subpart LL, subsections 60.382(a)(2)	MD-2 & MD-3 are wet scrubbers so the 7% opacity limit does not apply.
MD-5	40 C.F.R. 60, Subpart LL	The baghouse does not control metallic mineral emissions. It controls dust from nonmetallic reagent mixing.
MI-2 to MI-3	40 C.F.R. 60, Subpart O	Each incinerator's waste feed does not contain more than 10% sewage sludge (dry basis).
MG-1 to MG-9, MG-11 to MG-22	40 C.F.R. 60, Subpart JJJJ, Standards of performance for stationary spark ignition internal combustion engines	These engines are not spark ignition engines.
MG-1 to MG-9 and MG-11 to MG-22	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. The permit shield for Subpart IIII only applies to currently installed units until modified, reconstructed, or replaced.
MD-1, MD-4, MD-6, MF-1 to MF-4 and MF-6	40 C.F.R. 60, Subpart A, subsections 60.7(a)(5) and (7)	Continuous monitoring system not required for these emission units.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
All	40 C.F.R. 61, Subparts A, B, C, D, F, H, I, J, K, L, N, O, Q, R, T, V, W, Y, BB and FF, and Subpart M, except asbestos standard definitions (40 CFR 61.141) and standards for demolition, installation, renovation and disposal (40 CFR 61.145-156).	No affected emission units within stationary source nor are there any affected facilities, operations, or industries.
MI-2 and MI-3	40 C.F.R. 61, Subpart E	The incinerators do not process mercury ore, use mercury chlor-alkali cells, or incinerate or dry wastewater treatment plant sludge.
MI-2 and MI-3	40 C.F.R. 62, Subpart FFF	The capacity of each incinerator is less than the applicability threshold (250 tons per day of municipal solid waste).
MI-2 and MI-3	40 C.F.R. 62, Subpart HHH	Does not incinerate hospital, medical and infectious waste in MI-2 and MI-3.
MI-2 and MI-3	40 C.F.R. 62, Subpart III	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)].
MI-2 and MI-3	40 C.F.R. 62, Subpart JJJ	The capacity of each incinerator is less than the applicability threshold (35 tons per day).
All	40 C.F.R. 63, Subparts, F, G, H, I, L, M, N, O, Q, R, T, W, X, Y, CC, DD, EE, GG, II, JJ, KK, OO, PP, QQ, RR and VV	No affected emission units within stationary source nor are there any affected facilities, operations, or industries.
MG-7, MG-8, and MG-9	40 C.F.R. 63, Subpart ZZZZ	These emission units each are rated at greater than 500 brake HP, were constructed before December 19, 2002, and are considered existing emergency stationary RICE. Furthermore, the emission units are located at a major source of HAPs that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 C.F.R. 63.6640(f)(2)(ii) and (iii). Therefore, pursuant to 40 C.F.R. 63.6590(b)(3)(iii), these units do not have to meet the requirements of Subpart ZZZZ including the initial notification requirements.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MH-4	40 C.F.R. 63, Subpart DDDDD	MH-4 is comprised of direct-fired air heaters that provide heat for purposes of comfort and space heating and recover heat by heating air, not steam or water. All insignificant MH-4 heaters are not defined as boilers or process heaters under the Boiler MACT.
MI-2 to MI-3	18 AAC 50.050(b) – particulate matter standards for incinerators	The incinerators do not incinerate sludge from a municipal wastewater treatment that serves 10,000 or more persons and the incinerators are rated at less than 1000 lb/hr total.
All	18 AAC 50.055(a)(2)	The emission units were not described in cited regulations or in operation before November, 1982.
All	18 AAC 50.055(a)(3), (4), (5), (6), (7), (8) and (9)	Stationary source has no emission units as described in cited regulations.
All	18 AAC 50.055(b)(2), (3), & (4)	Stationary source has no emission units as described in cited regulations.
All	18 AAC 50.060 – pulp mills	Stationary source has no emission units as described in cited regulations.
All	18 AAC 50.070 – marine vessel emission	No marine vessels at stationary source.
All	18 AAC 50.075 – wood fired heating device	Stationary source has no emission units as described in cited regulations.
MD-2, MD-3 and MF-2 to MF-7	18 AAC 50.055 – industrial process	These conveyors are not an industrial process. These fugitive emission units are not an industrial process.
MF-8 and MF-9	18 AAC 50.055 – industrial process	Open burning is not an industrial process.
Open Burning	NO_X PSD avoidance Owner Requested Limits	Fugitive emissions do not count as part of a stationary source's potential to emit unless the source is one of 28 listed categories listed in 40 CFR 52.21(b)(1)(iii). Red Dog Mine is not one of these categories.
MG-1 to MG-6	1988 BACT determination	The 1988 BACT determination has been superseded by the BACT determination in permit 9932-AC005 Revision 1.
MC-1	40 C.F.R. 60, Subpart OOO	No crushing or grinding occurs in the batch plant.
Wastewater Treatment Plant	18 AAC 50	The wastewater plant is not an air emission source.

Section 12. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

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

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

  Wet Bulb Temperature: can be measured using a sling psychrometer

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

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

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

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

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

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

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

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

Page No.

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

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 13. Material Balance Calculation

If the sulfur content of a fuel shipment is greater than 0.75 percent by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A. = 31,200 x[**wt%S_{fuel}**] = 31,200 x _____ = _____

B. = 0.148 x[**wt%S_{fuel}**] = 0.148 x _____ = _____

C. = 0.396 x[**wt%C_{fuel}**] = 0.396 x _____ = _____

D. = 0.933 x[**wt%H_{fuel}**] = 0.933 x _____ = _____

E. = B + C + D = _____ + _____ + _____ = _____

F. = 21 –[**vol%$_{dry}$O2, $_{exhaust}$**] = 21 - _____ = _____

G. =[**vol%$_{dry}$O2, $_{exhaust}$**] ÷ F = _____ ÷ _____ = _____

H. = 1 + G = 1 + _____ = _____

I. = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The wt%S_{fuel}, wt%C_{fuel}, and wt%H_{fuel} are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent (wt%) of sulfur is obtained pursuant to Condition 15.1. 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 14. ADEC Notification Form[29]

Red Dog Mine	AQ0290TVP02
Stationary Source Name	**Air Quality Permit No.**
Teck Alaska Incorporated	
Company Name	Date:

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

When did the event/deviation occur?
Begin Date: _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)
End Date _____ / _____ / _____ Time: _____ : _____ (Use 24-hr clock.)

What was the duration of the event/deviation? _____ : _____ (hrs:min) or _____ days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for Notification: (please check only 1 box and go to the corresponding section)

☐ Excess Emissions – Complete Section 1 and Certify

☐ Deviation from Permit Condition – Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

Section 1. Excess Emissions

(a) Was the exceedance: ☐ Intermittent or ☐ Continuous

(b) Cause of Event (Check one that applies):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)

☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment

☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

(c) Description
Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) Emissions Units Involved:
Identify the emission unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

[29] Revised as of August 20, 2008.

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

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

☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Other _____

☐ Marine Vessel Opacity ☐ Flaring _____

(f) Unavoidable Emissions:

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

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

Certify Report (Go to end of form.)

Section 2. Permit Deviations

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

☐ Emission Unit-Specific

☐ Failure to Monitor/Report

☐ General Source Test/Monitoring Requirements

☐ Recordkeeping/Reporting/Compliance Certification

☐ Standard Conditions Not Included in the Permit

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

☐ Generally Applicable Requirements

☐ Reporting/Monitoring for Diesel Engines

☐ Recordkeeping Failure

☐ Insignificant Emission Unit

☐ Stationary Source Wide

(b) Emission Unit Involved:

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

EU ID	EU Name	Permit Condition/ Potential Deviation

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

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

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

Printed Name: _____ Title: _____ Date: _____

Signature: _____ Phone Number: _____

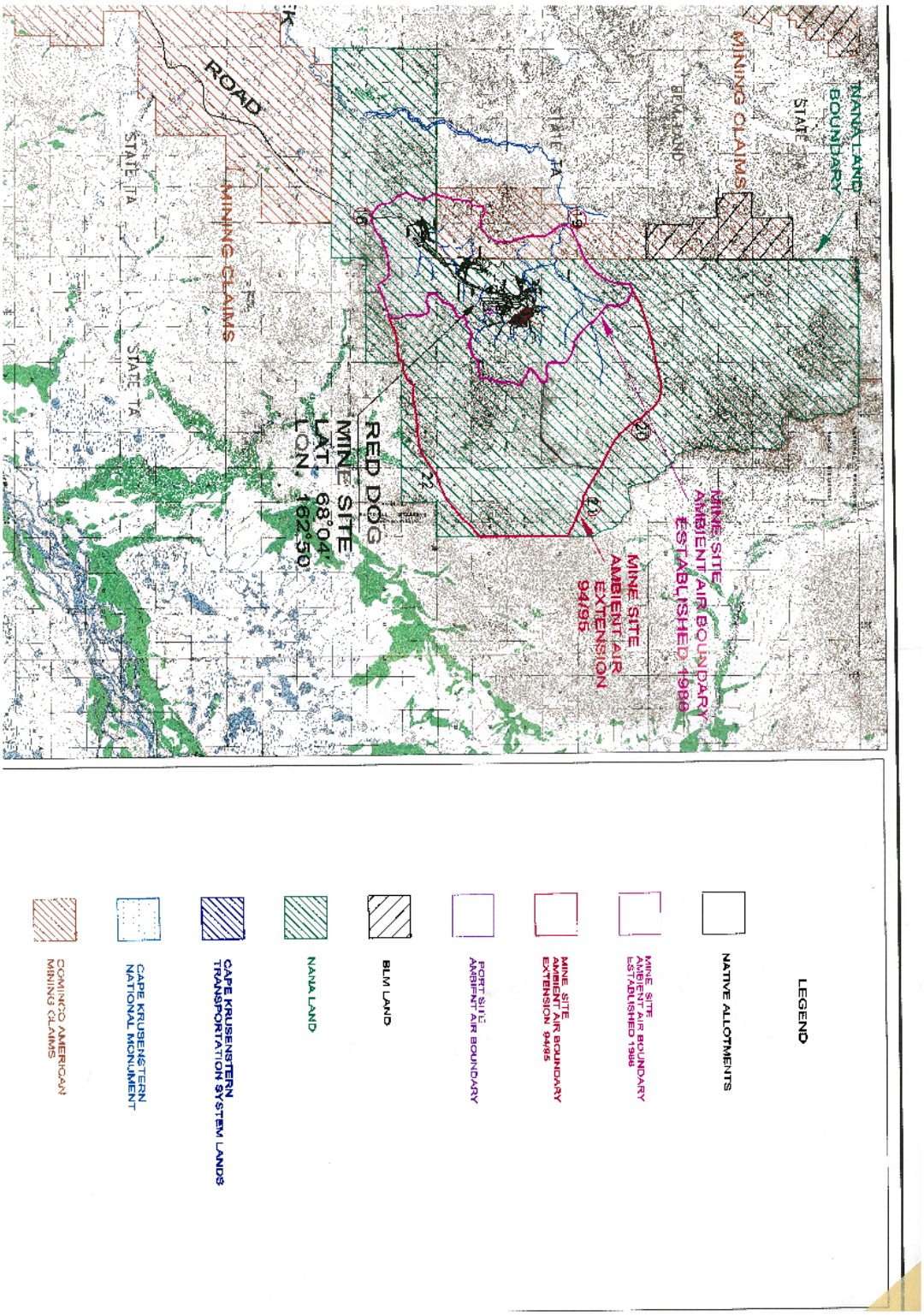
NOTE: *This document must be certified in accordance with 18 AAC 50.345(j)*

To Submit this Report:

Fax to: 907-451-2187
Or
Email to: DEC.AQ.Airreports@alaska.gov
If faxed or emailed, the report must be certified within the Operating Report required for the same reporting period per Condition 102.
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. Map of Red Dog Mine Ambient Boundary



Section 16. Emission Inventory Form

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

Mandatory information is highlighted. Make additional copies as needed.	
Inventory start date:	
Inventory end date:	
Inventory Type:	
Facility Information:	
ADEC Stationary Source ID:	
(Stationary Source) Facility Name:	
AFS ID:	
Census Area/ Community:	
Line of Business (NAICS):	
Contact/Owner Name:	
Contact Owner Address:	
Contact/Owner Phone Number:	
Facility Physical Address:	
	Lat: Long:
Mailing Address :	

Emission Unit:	
ID:	
Description:	
Manufacturer:	
Model Number:	
Serial Number:	
Year of Manufacture:	
Maximum Nameplate Capacity:	
Design Capacity (BTU/hr):	
Control Equipment (List All):	
	Control Equipment Type(Primary or Secondary):
	ID:
	Type:
	Manufacturer:
	Model:
	Control Efficiency (%):
	Capture Efficiency (%):
	Total Capture Efficiency (%):

Pollutants Controlled			

Processes (List All):	
	PROCESS:
	SCC Code:
	Material Processed:
	Operational Periods:
	FUEL INFORMATION
	Ash Content (weight %):
	Elem. Sulfur Content (weight %):
	H_2S Sulfur Content (ppmv):
	Heat Content (MMBtu/1000 gal or MMBtu/MMscf):
	Heat Input (MMBtu/hr):
	Heat Output (MMBtu/hr):
	THROUGHPUT
	Total Amount:
	Summer %:
	Fall %:
	Winter %:
	Spring %:
	Days/Week of Operation:
	Weeks/Year of Operation:
	Hours/Day of Operation:
	Hours/Year of Operation:

EMISSIONS					
Pollutant	**Emission Factor**	**Emission Factor Numerator**	**Emission Factor Denominator**	**Emission Factor Source**	**Tons Emitted**
CO					
NH_3					
NO_X					
PM_{10}-PRI					
$PM_{2.5}$-PRI					
SO_2					
VOC					
Lead and lead compounds					

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

Certification:

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

Printed Name:_____Title_____Date _____

Signature:_____ Phone number_____

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

To Submit this report:

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

Or

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

[18 AAC 50.346(b)(9)]