DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0290TVP03 Issue Date: January 28, 2020
Revision 3: Public Comment - December 30, 2022 Expiration Date: January 28, 2025

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

All currently applicable stationary source-specific terms and conditions of Air Quality Control Minor Permits AQ0290MSS02, AQ0290MSS03, AQ0290MSS06 (Rev. 1), AQ0290MSS08, AQ0290MSS09, AQ0290MSS10, AQ0290MSS12, and AQ0290MSS13 have been incorporated into this permit.

This operating permit became effective February 27, 2020.

Revision 3 becomes effective <insert date—30 days after issue date>.

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAAQS ..... Alaska Ambient Air Quality Standards
AAC ..... Alaska Administrative Code
acfm ..... actual cubic feet per minute
ADEC ..... Alaska Department of Environmental Conservation
AS ..... Alaska Statutes
ASTM ..... American Society for Testing and Materials
BACT ..... best available control technology
bhp ..... brake horsepower
CFR ..... Code of Federal Regulations
CAA or The Act ..... Clean Air Act
CO ..... carbon monoxide
CO_2e ..... CO_2-equivalent
dscf ..... dry standard cubic foot
EPA ..... US Environmental Protection Agency
EU ..... emissions unit
F ..... degrees Fahrenheit
ft ..... feet
GHG ..... greenhouse gas
gr./dscf ..... grain per dry standard cubic foot (1 pound = 7000 grains)
GP3 ..... general permit for asphalt plants
gph ..... gallons per hour
HAP ..... Hazardous Air Pollutants [as defined in AS 46.14.990]
hp ..... horsepower
H_2S ..... hydrogen sulfide
ICE ..... internal combustion engine
ID ..... emissions unit identification number
kPa ..... kiloPascals
kW ..... kilowatt
kWh ..... kilowatt hours
LAER ..... lowest achievable emission rate
MACT ..... maximum achievable control technology [as defined in 40 CFR 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
NEDS ..... National Emissions Data System
NESHAP ..... National Emission Standards for Hazardous Air Pollutants [as contained in 40 CFR 61 and 63]
NO_X ..... nitrogen oxides
NSPS ..... New Source Performance Standards [as contained in 40 CFR 60]
O_2 ..... oxygen
Pb ..... lead
PM_{10} ..... particulate matter less than or equal to a nominal 10 microns in diameter
$PM_{2.5}$ ..... particulate matter less than or equal to a nominal 2.5 microns in diameter
ppm ..... parts per million
ppmv, ppmvd ..... parts per million by volume on a dry basis
PRC ..... portable rock crusher
PSD ..... prevention of significant deterioration
PTE ..... potential to emit
RH ..... relative humidity
RICE ..... reciprocating internal combustion engine
SCR ..... selective catalytic reduction
SIC. ..... Standard Industrial Classification
SIP ..... State Implementation Plan
SO_2 ..... sulfur dioxide
SPC ..... standard permit condition
tph ..... tons per hour
tpy ..... tons per year
VOC ..... volatile organic compound [as defined in 40 CFR 51.100(s)]
VOL ..... volatile organic liquid [as defined in 40 CFR 60.111b, Subpart Kb]
vol% ..... volume percent
wt% ..... weight percent

Section 1. Stationary Source Information

Identification

Permittee:		**Teck Alaska Incorporated** 2525 C Street, Suite 310 Anchorage, AK 99503
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 2525 C Street, Suite 310 Anchorage, AK 99503
Operator:		Teck Alaska Incorporated 2525 C Street, Suite 310 Anchorage, AK 99503
Permittee's Responsible Official:		Les Yesnik General Manager 2525 C Street, Suite 310 Anchorage, AK 99503
Designated Agent:		Perkins Coie, LLP 1029 W 3rd Ave., Suite 300 Anchorage, AK 99501-1981
Stationary Source and Building Contact:		Ann Mason, Environmental Coordinator 2525 C Street, Suite 310 Anchorage, AK 99503 907-754-5143 ann.mason@teck.com
Fee Contact:		Same as Stationary Source and Building Contact
Permit Contact:		Same as Stationary Source and Building Contact
Process Description	SIC Code:	1031 - Lead and Zinc Ores
	NAICS Code:	212231 – Lead Ore and Zinc Ore Mining

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

Section 2. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory

EU ID	Type Sequence Number	Emissions Unit Description	Rating/Size	Installation/ Construction Date
Diesel Generators and Pumps				
MG-1	01-11	Wärtsilä 16V32 Primary Generator Engine #1	5000 kW	1988
MG-2	01-12	Wärtsilä 16V32 Primary Generator Engine #2	5000 kW	1994
MG-3	01-13	Wärtsilä 16V32 Primary Generator Engine #3	5000 kW	1988
MG-4	01-14	Wärtsilä 16V32 Primary Generator Engine #4	5000 kW	1988
MG-5	01-15	Wärtsilä 16V32 Primary Generator Engine #5	5000 kW	1988
MG-6	01-31	Wärtsilä 16V32 Primary Generator Engine #6	5000 kW	1994
MG-7	94-05	Cat 3508TA #1 Supplemental Generator Engine SC	1,003 hp	1988
MG-8	94-06	Cat 3508TA #2 Supplemental Generator Engine SC	1,003 hp	1988
MG-9	94-07	Cat 3508TA #3 Supplemental Generator Engine PAC	1,003 hp	1988
MG-11	94-28	Cat 3126 Fire Protection Backup Pump Engine	194 hp	2003(3)
MG-17	01-54	Wärtsilä 16V32 Primary Generator Engine #8 w/SCR	5000 kW	2003
MG-18	01-49	Wärtsilä 16V32 Primary Generator Engine # 7 w/SCR	5000 kW	2001
MG-19	94-12	Cat 3406TA Seepage Pond Backup Generator Engine	375 hp	1989
MG-20	94-13	Cat 3406B Red Dog Creek Backup Generator Engine	449 hp	1989
MG-22	94-36	Cummins/6BT5.9-G6 Airport Backup Generator Engine	170 hp	2003
MG-27	94-74	Cat/C4.4 Kivalina Creek Backup Generator Engine	157 hp	2016
MG-28	94-87	Cat/C32 Slurry Pump Station Backup Generator Engine	1,474 hp	2021
MG-29	94-79	Cat/C15 Bons Creek Backup Generator Engine	779 hp	2019
Fuel Oil Fired Heaters				
MH-4	Various	Source-wide Small Heater Group	10.66 MMBtu/hr	NA
MH-5	14-108	Cleaver-Brooks KL-25-1 Emulsion Plant Boiler	2.51 MMBtu/hr	2005
MH-6	14-17	Standby Glycol Water Heater – PAC Superior 8-X-1250	10.5 MMBtu/hr	2019
MH-7	14-251	Standby Glycol Water Heater – SC Superior 8-X-1250	10.5 MMBtu/hr	2021
MH-8	14-252	Standby Glycol Water Heater – SC Superior 8-X-1250	10.5 MMBtu/hr	2021
Incinerators				
MI-2	14-01	John-Zink Comptro A 39G Incinerator	900 lb/hr	1988
MI-3	14-18	Advanced Combustion CA-500 Incinerator	625 lb/hr	1996

EU ID	Type Sequence Number	Emissions Unit Description	Rating/Size	Installation/ 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
MD-11	29-1032	Lime Slaker Dust Extraction Exhaust	13,200 acfm	2015
MD-12	22-39	Lime Slaker Scrubber Exhaust	370 acfm	2015
MD-13	22-40	Lime Slaker Scrubber Exhaust	370 acfm	2015
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-1a		Feed Hopper	400 tph	2021
~~PRC-2a~~	~~94-107~~	~~Cummins QSK23 Portable Crusher~~	~~800 kW~~	~~2021~~
PRC-3a	34-33	Jaw Crusher Plant	400 ton/hr	2021
PRC-4a	34-34	JCI Cone Plant	400 ton/hr	2021
PRC-5a	34-35	3055 Jaw Crusher	400 ton/hr	2021
PRC-6a	34-36	K350 Cone	400 ton/hr	2021
PRC-7a	34-37	Transfer Point (Transco Roll Pak (3) conveyor)	400 ton/hr	2021
PRC-8a	34-38	Transfer Point (Vale Radial Stacker conveyor)	400 ton/hr	2021
PRC-9a	34-39	Transfer Point (Vale Radial Stacker conveyor)	400 ton/hr	2021
PRC-10a	34-40	6x20 3 Deck Screen	400 ton/hr	2021
PRC-11a	34-41	Vibrating Grizzly Feeder	400 ton/hr	2021

Commented [AM1]: See comment associated with the emission unit inventory MXG-101

EU ID	Type Sequence Number	Emissions Unit Description	Rating/Size	Installation/ Construction Date
MXG-101a[1]	94-~~64~~107	~~CAT C27 Generator Engine 725 kW Serial # OMJ00292~~Cummins QSK23	~~1,006 hp~~800 kW	~~2007~~2022
Asphalt Plant				
AP-11	NA	Aggregate Storage Piles	500 tph	TBD
AP-12	NA	Transfer Point – Loader to Aggregate Bin	500 tph	TBD
AP-13	NA	Transfer Point – Aggregate Bin to Conveyor	500 tph	TBD
AP-14	NA	Transfer Point – Conveyor to Batch Plant	500 tph	TBD
AP-15	NA	Asphalt Batch Plant	500 tph	TBD
AP-16	NA	Asphalt Cement Heater (Main Tank)	0.6 MMBtu/hr	TBD
AP-17	NA	HMA Truck Loadout	NA	TBD
AP-18	NA	Asphalt Cement Heater (Portable Tanks)	1.8 MMBtu/hr	TBD
AP-19[1]	NA	Primary Generator Engine	1,412 hp	TBD
AP-20[1]	NA	Secondary Generator Engine	176 hp	TBD
Fugitive and Miscellaneous				
MF-1	NA	Mill building exhausts and vents	NA	1988/2001
MF-4[2]	NA	Truck loading bay exterior doors and vents of the Concentrate Storage Building	NA	1988
MF-5[2]	NA	Mine roads fugitive dust within the ambient air boundary	Area Source	1985
MF-6[2]	NA	Quarry operations fugitives (dust and methanol or ethanol/brine) within the ambient air boundary	Area Sources	1988
MF-7[2]	NA	Stockpiles and exposed areas within the ambient air boundary	Area Sources	1988
MF-8[2]	NA	Open burning of wood for disposal and/or fire-fighter training	Area Source	1986
MF-9[2]	NA	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

Commented [AM2]: See comment associated with the emission unit inventory MXG-101

Notes:

1. EU IDs AP-19, AP-20, and MXG-101a are nonroad engines. Any other "portable" engine listed in Table A is considered a stationary emissions unit.
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 of Operating Permit AQ0290TVP01 included EU IDs MF-2 and MF-3. However, Minor 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 replaced with EU IDs MD-7 and MD-8 as the respective emission point identifiers.

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

Section 3. State Requirements

Visible Emissions Standard

1. Industrial Process and Fuel-Burning Equipment Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, MH-5 through MH-8, AP-11 through AP-18, MF-1, MC-1, MD-1, MD-4 through MD-11[1], and PRC-1 through PRC-11, listed in Table A, to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j)(4), 50.055(a)(1), 50.326(j)(3) & 50.346(c)]
[40 CFR 71.6(a)(1)]

1.1 For EU IDs MG-1 through MG-6, MG-17, MG-18, MG-28, MG-29, MD-7 through MD-11, AP-16, and AP-18, monitor, record and report in accordance with Conditions 3 through 5.

1.2 For each of EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, MG-22, MD-1, and MD-4 through MD-6, as long as the emissions unit does not exceed the applicable fuel usage or emissions threshold limits listed in Table C of Condition 26, monitoring shall consist of an annual compliance certification under Condition 119 for the visible emissions standard based on reasonable inquiry. Otherwise, monitor, record, and report in accordance with Conditions 3 through 5 for that emissions unit for the remainder of the permit term for that emissions unit.

1.3 For each of EU IDs MG-27 and MH-5 through MH-8, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e), during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 119 with the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 118 if any of EU IDs MG-27 and MH-5 through MH-8 reaches any of the significant emissions thresholds listed in 18 AAC 50.326(e) and monitor, record, and report in accordance with Conditions 3 through 5 for the remainder of the permit term for that emissions unit.

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

1.5 For EU IDs AP-11 through AP-15 and AP-17, monitor, record, and report in accordance with Condition 7.

1.6 For EU ID MF-1, monitor, record, and report in accordance with the Smoke/No Smoke Plan under Conditions 3 through 5.

1.7 For EU ID MC-1, monitor, record, and report in accordance with Conditions 97.3 through 97.7.

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

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

2. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs MI-2 and MI-3 listed in Table A to reduce visibility through the exhaust effluent 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, comply with Condition 2 by complying with Condition 25.3c.

[18 AAC 50.040(j)(4), 50.050(a) & 50.326(j)(4)]
[40 CFR 71.6(a)(1), (a)(3) & (c)(6)]

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

Liquid Fuel-Fired Emissions Units, Dust Emissions Units, the Asphalt Plant[2], and Incinerators

3. Visible Emissions Monitoring. When required by any of Conditions 1.1 through 1.3, or in the event of replacement[3] during the permit term, the Permittee shall observe the exhaust of the listed EU IDs for visible emissions using either the Method 9 Plan under Condition 3.4 or the Smoke/No Smoke Plan under Condition 3.5:

3.1 The Permittee shall observe the exhaust of:

a. EU IDs MG-1 through MG-6, MG-17, MG-18, MG-27 through MG-29, AP-16, AP-18, MF-1, MD-7 through MD-11, and MI-2 and MI-3;

b. EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, MG-22, MD-1 and MD-4 through MD-6 if required by Condition 1.2;

c. EU IDs MG-27 and MH-5 through MH-8 if required by Condition 1.3.

3.2 The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 3.6.

3.3 The Permittee may, for each unit, elect to continue the visible emissions monitoring schedule specified in Conditions 3.4b through 3.4e or Conditions 3.5b through 3.6 that remains in effect from a previous permit.

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

a. First Method 9 Observation. Except as provided in Condition 3.3, observe the exhaust of the EU IDs listed under Condition 3.1 according to the following criteria:

[2] *Asphalt plant* means dryers; systems for screening, handling, storing, and weighing dried aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing, transferring, and storing asphalt concrete; and emission control systems within the stationary source.
[3] *"Replacement,"* as defined in 40 CFR 51.166(b)(32).
[4] Emergency operations are exempt from the visible emissions observation deadlines associated with emission unit "operation" under this condition.

(i) Except as provided in Condition 3.4a(ii), for any EU IDs in Condition 3.1a, observe exhaust within six months after the effective date of this permit.

(ii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[5] Except as provided in Condition 3.4e after the First Method 9 observation:

(A) For EU IDs in Condition 3.1a, continue with the monitoring schedule of the replaced unit; and

(B) For EU IDs in Conditions 3.1b and 3.1c, comply with Conditions 1.2 or 1.3, as applicable.

(iii) For each of EU IDs in Conditions 3.1b and 3.1c, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Conditions 1.2 or 1.3; or for an emissions unit with intermittent operations, within the first 30 days during the unit's next scheduled operation.

b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 3.4a, perform observations at least once in each calendar month that the emissions unit operates.

c. Semiannual Method 9 Observations. After at least three monthly observations under Condition 3.4b, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations:

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

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

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 3.4c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations:

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

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

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

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 3.4b, and continue monitoring in accordance with the Method 9 Plan.

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

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

b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 3.5a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.

c. Smoke Observed. If visible emissions are observed, comply with Condition 3.6.

3.6 **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 3.5, then the Permittee shall either begin the Method 9 Plan of Condition 3.4 or

a. initiate actions to eliminate visible emissions from the emissions 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 visible emissions; and

c. after completing the actions required under Condition 3.6a,

(i) conduct smoke/no smoke observations in accordance with Condition 3.5

(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 3.6a is completed; and

(B) continue as described in Condition 3.6b; or

(ii) if the actions taken under Condition 3.6a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 3.6c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan, if the emission unit has an exhaust stack, unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. If the emission unit does not have an exhaust stack, complete observations under the Smoke/No Smoke Plan after each corrective action until no visible

emissions are observed for seven consecutive operating days. After observing visible emissions and making observations under the Method 9 or Smoke/No Smoke Plan, the Permittee may at any time take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 3.5a.

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

Commented [AM3]: Please see the comment associated with Condition 3.6c(ii).

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

4.1 For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation and the date on the Visible Emissions Observation Form in Section 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 Form 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-consecutive-minute average opacity,

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

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

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

(iv) record the average opacity on the sheet.

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

4.2 If using the Smoke/No Smoke Plan of Condition 3.5, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

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

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

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

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

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

4.3 The records required by Conditions 4.1 and 4.2 may be kept in electronic format.

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

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

5.1 In the first operating report required in Condition 118 under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.

5.2 Include in each operating report required in Condition 118, for the period covered by the report:

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

b. for all Method 9 Plan observations,

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

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-consecutive- and 18-consecutive-minute average opacities observed; and

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

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

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

5.3 Report under Condition 117:

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

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

Portable Rock Crushing Emissions Units

6. Visible Emissions MR&R. For PRC-1a through PRC-11a, the Permittee shall comply as follows:

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

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

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

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

6.2 Include results of visible emissions observations with the operating report described in Condition 118 for the period covered by the report.

[Conditions 6.1 & 6.2, Minor Permit AQ0290MSS06 Rev.1, 5/5/09]

6.3 Include copies of the records of crusher operation with the operating report required by Condition 118 for the period covered by the report.

Asphalt Plant Emissions Units

7. Visible Emissions MR&R. For EU IDs AP-11 through AP-15 and AP-17, the Permittee shall comply as follows:

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

7.1 The Permittee shall identify fugitive emission points capable of producing visible emissions. Determine which point has the greatest continuous opacity and use this point for monitoring fugitive emissions from EU IDs AP-11 through AP-15, and AP-17, in accordance with 40 CFR 60, Appendix A, Method 9 for a minimum of 18 consecutive minutes.

a. Emission points capable of producing fugitive emissions include (but are not limited to) the descriptions in Condition 97.

b. The Permittee shall perform visible emissions observations:

(i) when the asphalt plant is operating at loads typical of normal operations;

(ii) within two days of startup at a new location; and

(iii) within the first two days of production during each calendar month of operation.

c. The Permittee shall conduct at least one set of Method 9 readings during each one hour run of Method 5 particulate matter testing required by Condition 9.1.

7.2 The Permittee shall keep records for EU IDs AP-11 through AP-15 and AP-17 as follows:

a. the observer shall

(i) List and record the emission points capable of producing visible emissions that the observer inspected.

(ii) Record

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

(B) the production rate or operating rate at the time of the Method 9 observation;

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

(D) 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;

(E) opacity observations to the nearest five percent at 15-second intervals on the Visible Emission Form in Section 12; and

(F) 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.

(iii) 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.

(iv) Calculate and record the highest six-consecutive-minute averages observed.

7.3 The Permittee shall report visible emissions for EU IDs AP-11 through AP-15 and AP-17 as follows:

a. Include in each operating report required by Condition 118:

(i) the emission points capable of producing fugitive emissions that the observer inspected;

(ii) copies of the observation results (i.e. opacity observations) for each emissions unit except for the observations the Permittee has already supplied to the Department;

(iii) 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; and

(iv) a summary of any monitoring or record keeping required under Conditions 7.1 or 7.2 that was not done.

b. Report in accordance with Condition 117:

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

(ii) if any monitoring under Condition 7.1 was not performed when required, report within three days of the date of discovery.

[Conditions 7– through 9, Minor Permit AQ0290MSS08, 4/14/17]
[18 AAC 50.040(j)(4),) & 50.326(j)(3)]
[40 CFR 71.6(a)]

Particulate Matter Emissions Standards

8. 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, MG-17 through MG-20, MG-22, MG-27 through MG-29, MH-5 through MH-8, AP-11 through AP-14, AP-16 through AP-18, MF-1, MC-1, MD-1, MD-4 through MD-11, and PRC-1a through PRC-11a, listed in Table A, to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(b)(1), 50.326(j)(3), & 50.346(c)]
[40 CFR 71.6(a)(1)]

8.1 For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-28, and MG-29, monitor, record and report in accordance with Conditions 12 through 14.

8.2 For each of EU IDs MG-27 and MH-5 through MH-8, as long as actual emissions from the emissions units are less than the significant emissions thresholds in 18 AAC 50.326(e) during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 119 for the particulate matter emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 118 if any of EU IDs MG-27, ~~MG-29,~~ and MH-5 through MH-8 reaches any of the significant emissions thresholds and monitor, record, and report in accordance with Conditions 12 through 14 for the remainder of the permit term for that emissions unit.

Commented [AM4]: See comment associated with Condition 8.2.

8.3 For EU IDs AP-16, and AP-18, monitor, record and report in accordance with Conditions 15 through 17.

8.4 For EU IDs MF-1, MD-1 and MD-4 through MD-11 monitor, record and report in accordance with Condition 18.

8.5 For the portable rock crushing operations (EU IDs PRC-1a through PRC-11a), monitor, record and report in accordance with Conditions 24.3 and 24.4; and Conditions 97.8, 97.9 and 97.10.

8.6 For the concrete batch operations (EU ID MC-1), monitor, record and report in accordance with Conditions 97.3 through 97.7 .

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

9. Particulate Matter Emissions Standards for Asphalt Plants. The Permittee shall not cause or allow particulate matter (PM) emissions from EU ID AP-15 to exceed 0.04 grains per dry standard cubic foot (gr/dscf) of exhaust gas corrected to standard conditions and averaged over three hours if constructed or modified after June 11, 1973 or 0.05 gr/dscf of exhaust gas corrected to standard conditions and averaged over three hours if constructed on or before June 11, 1973. Monitor, record, and report as follows:

[18 AAC 50.040(j)(4), 50.055(b)(1), (b)(5), & 50.326(j)(3)]
[40 CFR 71.6(a)(1)]

9.1 The Permittee or Operator shall conduct PM source tests on EU ID AP-15, to determine the concentration of PM in the exhaust of the emissions unit as follows:

a. Conduct a PM source test within the first 30 days of operating under this permit for EU ID AP-15, unless the applicable asphalt batch plant has had a PM source test within the last five years, approved by the Department, that demonstrates compliance with the applicable PM emissions standard listed in Condition 9.

b. Conduct PM source tests according to the requirements set out in accordance with Section 7.

c. If the source has conducted a PM source test approved by the Department within the last five years, conduct a source test no later than five calendar years after that test. For example, if the last test was conducted in 2017, then this condition requires a test no later than 2022.

d. While operating under this permit, conduct a source test every five calendar years. Each subsequent test must be completed no later than five calendar years after the last source test approved by the Department.

e. Notwithstanding Conditions 9.1a through 9.1d above, if the source does not operate at least 30 days in a calendar year, any source test required in that calendar year may be deferred to the next year. Until the required test is performed, the source may not operate more than 6 hours in any calendar day.

f. If the results of any PM source test exceed more than 90 percent of the PM emission standards listed in Condition 9 (i.e., 0.036 gr/dscf or 0.045 gr/dscf), then the Permittee shall conduct another source test within one year of the date of the most recent PM source test.

g. If the ~~Permittee~~ Asphalt Plant does not operate in a calendar year, then the calendar year that the ~~Permittee~~ Asphalt Plant did not operate does not count toward the time requirement to conduct another PM source test in Condition 9.1e or 9.1f. This delays the due date one year for each calendar year that the Asphalt Plant did not operate.

Commented [AM5]: See comment associated with Condition 9.1g

h. Monitor, record, and report per Conditions 9.2 through 9.5.

9.2 For all PM source tests, the Permittee shall record the information identified in Section 7, in addition to the following:

a. average hourly asphalt production rate: _____ tons/hour

b. Method 9 readings

c. the baghouse exit temperature: _____ °F

d. the pressure drop across the baghouse: _____ inches of water

9.3 The Permittee shall not operate the Asphalt Plant at a production level greater than the maximum throughput measured during the most recent PM source test that showed compliance. Maintain a daily production log showing:

a. the daily total asphalt production;

b. the peak hourly rate production for each day;

c. the start and stop time with the date for each day the Asphalt Plant operated;

d. total hours operated per day;

e. the total number of operating hours operated since the last source test;

f. pressure drop across baghouse at beginning and end of each production day; and

g. outlet temperature of baghouse at the beginning and end of each production day.

9.4 If the results of any PM source test exceed the PM standard in Condition 9, or if the Permittee did not conduct a PM source test as required by Condition 9.1, then the Permittee shall report as excess emissions and permit deviation under Condition 117, make any necessary repairs or adjustments to the operation, and schedule another source test no later than specified in Condition 9.1f.

9.5 The Permittee shall provide the information recorded in Condition 9.3 including the maximum production rate on the day of the source test in the operating report required under Condition 118.

10. PM Recordkeeping for Asphalt Plants. The Permittee shall keep records of the results of any PM testing conducted under Condition 9.

11. PM Reporting for Asphalt Plants. The Permittee shall:

11.1 Within 90 days of initial startup of the asphalt plant certify, in accordance with Condition 114, compliance with Condition 11 and provide the source test results used for the verification. Submit the certification in accordance with Condition 115.

11.2 Report in each operating report required under Condition 118, a summary of the results of any PM testing under Condition 9.

11.3 Report as excess emissions and permit deviation under Condition 117 if the results of any PM source test exceeds the applicable PM emissions limit in Condition 9.

[Conditions 11– through 13, Minor Permit AQ0290MSS08, 4/14/17]
[18 AAC 50.040(j)(4). 50.326(j)(3)]
[40 CFR 71.6(a)]

Particulate Matter MR&R

12. Particulate Matter Monitoring for Diesel Engines. The Permittee shall conduct source tests on diesel engines EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-28, and MG-29, if required by Condition 12.1 to determine the concentration of particulate matter (PM) in the exhaust of each emissions unit as follows:

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

12.1 If the result of any Method 9 observation conducted under Condition 3.4 for any of EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-28, and MG-29 is greater than the criteria of Conditions 12.2a or 12.2b, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following

40 CFR 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 12.2; or;

b. except as exempted in Condition 12.4, conduct a PM source test according to requirements set out in Section 7.

12.2 Take corrective action or conduct a PM source test in accordance with Condition 12.1 if any Method 9 observation under Condition 3.4 results in an 18-minute average opacity greater than

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

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

12.3 During each one-hour PM source test run under Condition 12.1b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

12.4 The PM source test requirements in Condition 12.1b are waived for an emissions unit if

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

b. corrective action was taken to reduce visible emissions and two consecutive 18- minute Method 9 visible emissions observations (as described in Condition 3.4) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 12.2.

13. Particulate Matter Recordkeeping for Diesel Engines. The Permittee shall keep records of the results of any source test and visible emissions observations conducted under Condition 12.

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

14. Particulate Matter Reporting for Diesel Engines. The Permittee shall report as follows:

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

14.1 Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 12.2a or Condition 12.2b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 12.2.

14.2 Report in accordance with Condition 117

a. anytime the results of a PM source test exceed the particulate matter emissions standard in Condition 8; or

b. if the requirements under Condition 12.1 were triggered and the Permittee did not comply on time with either Condition 12.1a or 12.1b. Report the deviation within 24 hours of the date compliance with Condition 12.1 was required.

14.3 In each operating report under Condition 118, include:

a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 12; and

b. copies of any visible emissions observation results greater than the thresholds of Condition 12.2, if they were not already submitted.

15. Particulate Matter Monitoring for Heaters. The Permittee shall conduct source tests on EU IDs AP-16 and AP-18, to determine the concentration of particulate matter in the exhaust of each of the emissions units as follows:

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

15.1 If the result of any Method 9 observation conducted under Condition 3.4 for any of EU IDs AP-16 and AP-18 results in an 18-minute average opacity greater than 20 percent opacity, the Permittee shall, within six months of that Method 9 observation, either

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

b. except as exempted under Condition 15.3, conduct a PM source test according to the requirements set out in Section 7.

15.2 During each one-hour PM source test run required under Condition 15.1, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

15.3 The PM source test requirement in Condition 15.1 is waived for an emissions unit if:

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

b. The Permittee provides results of a PM source test approved by the Department and conducted within the last five years for EU IDs AP-16 and AP-18, including source tests performed by parties other than the Permittee; or

[Condition 14.3a, Minor Permit AQ0290MSS08, 4/14/17]

c. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 3.4) conducted thereafter within a six-month period show visible emissions less that the threshold in Condition 15.1.

16. Particulate Matter Recordkeeping for Heaters. The Permittee shall keep records of the results of any source test and visible emissions observation conducted under Condition 15.

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

17. Particulate Matter Reporting for Heaters. The Permittee shall report as follows:

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

17.1 Notify the Department of any Method 9 observation results that are greater than the threshold of Condition 15.1 within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than the threshold in Condition 15.1.

17.2 In each operating report required by Condition 118, include:

a. a summary of the results of any PM testing and visible emissions observations conducted under Condition 15; and

b. copies of any visible emissions observation results greater than the threshold in Condition 15.1, if they were not already submitted.

17.3 Report in accordance with Condition 117, any time the results of a source test exceed the PM emission standard in Condition 8.

18. Particulate Matter Monitoring for Industrial Processes and Baghouses. The Permittee shall conduct source tests to determine the concentration of PM in the exhaust of EU IDs MF-1, MD-1, and MD-4 through MD-11, as follows:

18.1 Except as allowed under Condition 18.3 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:

a. 20 percent opacity threshold for two or more 18-minute observations in a consecutive six-month period, as applies to EU IDs MF-1, MD-5, and MD-11 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 60.1b.

18.2 During each one-hour PM source test run required under Condition 18.1, 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.

18.3 The PM source test requirement in Condition 18.1 is waived for an emissions unit if:

a. a PM source test on that unit has shown compliance with the PM standard during the permit term (see Condition 60.3); 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 3.4 no longer occur.

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

Sulfur Compound Emissions Standard

19. 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, MG-17 through MG-20, MG-22, MG-27 through MG-29, MH-5 through MH-8, AP-15, AP-16, and AP-18, to exceed 500 ppm averaged over three hours.

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

19.1 For EU IDs AP-15, AP-16, and AP-18, the Permittee shall do one of the following for each shipment of fuel:

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

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

(i) test the fuel for its sulfur content by following an appropriate method listed in 18 AAC 50.035(b~~)~~ ~~(~~) through (c) and 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1); or

(ii) obtain test results showing the sulfur content of the fuel from the supplier or refinery was less than 0.75 percent sulfur; the test results must include a statement signed by the supplier or refinery of what fuel they represent.

19.2 For EU IDs AP-15, AP-16, and AP-18, include copies of the records required by Condition 19.1 in each operating report required by Condition 118.

19.3 Report as described in Condition 117 whenever the fuel combusted in EU IDs AP-15, AP-16, and AP-18 causes sulfur compound emissions to exceed the standard of Condition 19.

[Conditions 17.1 through 17.3, Minor Permit AQ0290MSS08, 4/14/17]

Sulfur Compound MR&R

Fuel Oil[6]

[6] *Oil* means crude oil or petroleum or a liquid fuel derived from crude oil or petroleum, including distillate and residual oil, as defined in 40 CFR 60.41b.

19.4 For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, 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.

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 MT-1 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:

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

Where:

N = Each fuel type blended in a 12-month period.
DF_N = Total gallons of each fuel type N added to the tank during that period.
$\%S\ DF_N$ = 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.

19.5 Fuel testing under Condition 19.4 must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 CFR 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

19.6 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 the SO_2 material balance calculation in Section 13 or Method 19 of 40 CFR 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a)(1).

19.7 The Permittee shall report as follows:

a. If SO_2 emissions calculated under Condition 19.6 exceed 500 ppm, the Permittee shall report in accordance with Condition 117. When reporting under this condition, include the calculation under Condition 19.6.

b. The Permittee shall include in the operating report required by Condition 118

(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.

[Condition 6 and Exhibits B (F), C, & D, PTO 9332-AA003 Amendment. 2, 12/4/96]
[Conditions 12 & 17, Construction Permit 0032-AC018 Rev. 1, 11/26/02]
[Conditions 13 & 18, Construction Permit 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j)(4), 50.326(j)(3) & (4), & 50.346(c)]
[40 CFR 71.6(a)(3) & (c)(6)]

Preconstruction Permit[7] Requirements

20. Recording Device Malfunction. If any recording device required by this permit, including fuel consumption meters, kWh meters, or operating hour indicator/recorders on EU IDs MG-1 through MG-9, is malfunctioning or inoperable for three or more consecutive 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 118.

[Condition 25, PTO 9332-AA003 Amendment 2, 12/4/96]
[18 AAC 50.040(j)(4~~),~~) & 50.326(j)]
[40 CFR 71.6(a)]

21. Pollution Control Equipment Breakdown Reporting. For EU ID AP-15, the Permittee shall:

21.1 Notify the Department within two days of a pollution-control equipment breakdown. Provide a schedule for repair of the pollution control equipment and do not operate the plant after the breakdown until repairs have been completed.

21.2 In the operating report required by Condition 118, provide a summary of any pollution control equipment breakdowns. The summary shall include:

a. the equipment involved;

b. the date of the breakdown; and

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

c. the date the equipment was returned to service.

[Condition 18, Minor Permit AQ0290MSS08, 4/14/17]
[18 AAC 50.040(j)(4)~~,~~ & 50.326(j)]
[40 CFR 71.6(a)]

Ambient Air Quality Standards and Maximum Allowable Ambient Concentrations

22. 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.

[Condition 10, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

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

23.1 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.

23.2 Monitor and record according to Conditions 19.4 and 19.5.

23.3 Keep records of calculations performed in Condition 19.4 to determine the sulfur content of combined shipments and copies of fuel delivery receipts used in the calculations.

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

23.5 Report under Condition 117 if

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

b. The consecutive 12-month average fuel sulfur concentration obtained in Condition 23.4 exceeds 0.16 percent by weight.

23.6 Include with the operating report in Condition 118 the records required under Conditions 23.3 and 23.4.

[Condition 6 and Exhibits B (F), C, & D, PTO 9332-AA003 Amendment 2, 12/4/96]
[Conditions 12 & 17, Construction Permit 0032-AC018 Rev. 1, 11/26/02]
[Conditions 13 & 18, Construction Permit 9932-AC005 Rev. 2, 7/16/03]
[Condition 10, Minor Permit AQ0290MSS06 Rev 1, 5/5/2009]
[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)]

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

For EU ID MF-5

24.1 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 24.1b.

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 CFR 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 24.1b.

24.2 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, vacuuming, or surface washing.

b. Determine and record the duration of vehicle particulate matter emissions as described in Condition 24.1b.

c. If the duration of particulate matter emissions is greater than two minutes, then perform particulate matter removal by means of sweeping 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 24.1b.

[Conditions 15.1 & 15.2, Construction Permit 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

For EU IDs PRC-1a through PRC-11a

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

a. placement of spray nozzles at units PRC-5a and PRC-6a 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.

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

24.5 The Permittee shall comply with the requirements of Condition 97.8 to take reasonable precautions to prevent the release of airborne particulate matter and fugitive dust from the rock crusher, EU IDs PRC-1a through PRC-11a.

24.6 Record the date, time, location and description of all actions taken to control particulate matter emissions under Condition 24.1.

24.7 Submit a copy of the records required under Conditions 24.1b and 24.6 with the facility operating report required by Condition 118.

[Conditions 12~~,~~ ~~& 13~~ ~~& 14~~, Minor Permit AQ0290MSS06 Rev. 1, 5/5/09]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

Commented [CDL6]: See Comment No. 4 to Attachment I.

Best Available Control Technology (BACT) Emissions Limits

25. For EU IDs MG-1, MG-3 through MG-5, MG-11, MG-17, MG-19, MG-20, MH-4, MH-5, MI-3, MD-1 through MD-4, MD-6, MD-7, MD-8, MF-4 through MF-9 and MC-1, comply with the BACT limits indicated in Table B.

[Sections 4 and 5, Construction Permit 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, MG-19, and MG-20	0.031 lb/hp-hr	SIP standards (Condition 1)	None	
MH-4 and MH-5	None	SIP standards (Condition 40.1)	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, MD-7, MD-8, and MF-4	None	Comply with Condition 60.	Comply with Condition 60.	
MD-4	None	Comply with Condition 60.	0.01 grains/dscf (averaged over three hours)	

EU IDs	NO_X Limits	Visible Emissions Limits	PM Limits	Fugitive Emissions Requirements
MD-6	None	SIP standards (Condition 3) Comply with Condition 60.	0.01 grains/dscf (averaged over three hours) Comply with Condition 60	
MC-1, MF-6, and MF-7	None			Comply with Condition 97
MF-5	None			Comply with Condition 24
MF-8 and MF-9	None			Comply with Condition 102

Condition 60 is NSPS Subpart LL

NO_X Emissions Requirements:

25.1 **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; MG-11; and a representative unit of MG-19 and MG-20, 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 CFR 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 ID MG-11 is a "group"; and EU IDs MG-19 and MG-20 are a "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 IDs MG-11 and MG-17).

b. 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 25.1b occurs.

(A) In each operating report under Condition 118 for each engine for which Condition 25.1 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.

c. **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 25.1 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 25, 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 109

(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 25.

25.2 Report the results of the source tests conducted under Condition 25.1 in accordance with the requirements set forth in Section 7 of this permit.

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

Particulate Matter Requirements:

25.3 **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, MG-19, and MG-20, monitor, record and report in accordance with the applicable requirements of Condition 1.1 or 1.2.

b. For EU IDs MH-4 and MH-5, comply with Condition 40.4.

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

(i) Report under Condition 117 if visible emissions averaged over six minutes exceed 10% opacity.

d. For EU IDs MD-1 through MD-4, MD-6 through MD-8, and MF-4, monitor, record and report in accordance with Conditions 60.3 and 60.5.

25.4 **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 32.2 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 25.4b 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 60.3a.

25.5 Report the results of the source tests conducted under Conditions 25.3 and 25.4 in accordance with the requirements set forth in Section 7 of this permit.

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

Point Sources and Fugitive Particulate Matter Emissions Requirements:

25.6 For EU IDs MD-1 through MD-4, MD-6 through MD-8, MC-1, MF-4 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 CFR 71.6(a)]

Owner Requested Limits (ORLs)

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

Table C - Emissions and Fuel Usage Threshold Values

EU IDs	Source Description	Rating/Size	Threshold Values (per year, each unit)
MG-7 through MG-9, MG-11, MG-19, MG-20, and 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)]

26.1 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, MG-19, MG-20, and MG-22;

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

Where:

A = (grain/dscf/7000)
B = (fan, acfm * 560/(air temp F + 492)
C = (fan operating time in minutes)

26.3 Submit with the operating reports required under Condition 118:

a. The records required under Conditions 26.1 and 26.2; and

b. An annual compliance certification under Condition 119 with the visible emissions and particulate matter standards in Conditions 3 and 8, if the emissions units have not exceeded the thresholds in Table C.

[Condition 26 and Exhibit B, PTO 9332-AA003 Amendment 2, 12/4/96]
[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(a)]

27. 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.

27.1 EU ID MG-18 operational restriction:

a. Except as provided for in Conditions 27.1b and 27.1c 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 27.3e is met.

[Conditions. 16.1(a) & (b), Construction Permit 0032-AC018 Rev. 1, 11/26/02]

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 (per event) 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 27.3e is met.

[Condition 4.1, Minor Permit AQ0290MSS13, MM/DD/~~2022~~2023]

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 27.1b and 27.1c.

e. Report as a permit deviation to the Department as provided in Condition 117, if MG-18 operates when all of EU IDs MG-1 through MG-6 are in operation, except as authorized in Conditions 27.1b and 27.1c.

f. Attach to the operating report required by Condition 118 the recorded information in Condition 27.1d and the total duration of concurrent operation during the reporting period.

[Conditions. 16.3(a~~) (~~) through (c), Construction Permit 0032-AC018 Rev. 1, 11/26/02]

27.2 Limit carbon monoxide emissions from each of 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.

[Condition 16.2, Construction Permit 0032-AC018 Rev. 1, 11/26/02]
[Condition 17.1, Construction Permit 9932-AC005, Rev. 2, 7/16/03]

a. **CO Recurring Testing**. The Permittee shall monitor compliance with Condition 27.2 by conducting source tests on EU IDs MG-17, MG-18, and a representative unit of EU IDs MG-1 through M-6. 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 five years after the previous CO source test.

(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.

(A) Report the following if the situation in Condition 27.2a(i) occurs.

(1) In each operating report under Condition 118 for each engine for which Condition 27.2a has not been satisfied because the engine normally operates less than 400 hours in any 12 consecutive months, the Permittee shall identify:

i. the engine;

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

iii. 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 27.2a 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 27.2, 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 109

(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

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

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

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

iv. 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 27.2.

b. For EU ID MG-17, the Permittee may conduct CO source tests of Condition 27.2a upstream of (before) the Selective Catalytic Reduction (SCR) control system.

c. Report the results of source tests conducted under Condition 27.2a, as set out in Section 7.

[Conditions 17.3, Construction Permit 9932-AC005, Rev. 2, 7/16/03]
[18 AAC 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

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

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

b. 2,400 hours for the Concrete Batch Plant, EU ID MC-1;

c. 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;

d. 500 hours each, for EU IDs MG-19, MG-20, and MG-22; and

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

[Condition 17.2, Construction Permit 9932-AC005 Rev. 2, 7/16/03]
[Condition 16.5, Construction Permit 0032-AC018 Rev. 1, 11/26/02]

27.4 For each calendar month, monitor, calculate and record

a. The hours that each EU IDs MG-1 through MG-6, MG-18 through MG-20, 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.

27.5 Submit a copy of the records required by Conditions 27.4a and 27.4b with the operating report required by Condition 118.

27.6 Report under Condition 117 if any of the emissions units exceeded the operational limits set out in Condition 27.3.

[Conditions 17.4 & 17.5, Construction Permit 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

28. 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:

28.1 For all fuel oil-burning emissions units listed in Table A of this permit, comply with the requirements of Condition 19.

[Condition 17.3, Construction Permit 0032-AC018 Rev.1, 11/26/02]
[Conditions 16.3, 16.4, 18.1, 18.3, & 18.4, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

28.2 Operate following the limits set out in Conditions 27.1 and 27.3.

[Condition 17.1, Construction Permit 0032-AC018 Rev. 1, 11/26/02]
[Condition 18.2, Construction Permit 9932-AC005 Rev 2, 7/16/03]

28.3 Provide information as set out in Conditions 27.1f and 27.5.

[Condition 17.2, Construction Permit 0032-AC018 Rev. 1, 11/26/02]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

29. 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:

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

[Condition 18.2, Construction Permit 0032-AC018 Rev.1, 11/26/02]

a. Demonstrate compliance with Condition 29.1 by complying with Condition 31.

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

For EU ID MXG-101a:

29.2 Limit the operation of EU ID MXG-101a 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 117.

d. Include the records required under Condition 29.2b in the report required by Condition 118.

[Condition 11, Minor Permit AQ0290MSS06 Rev 1, 5/5/09]
[18 AAC 50.040(j) and 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

30. Limits to Avoid PSD Review for Oxides of Nitrogen for EU IDs MG-~~3~~1 through MG-6,~~and~~ MG-17, and MG-18 with Selective Catalytic Reduction (SCR) Controls. Condition 30 is applicable only for the period that the US EPA Amended Administrative Order Docket No. CAA-10-2000-0035 dated March 7, 2000 is valid.

Commented [AM7]: See comment associated with Condition 30.

30.1 For EU IDs MG-1 through MG-6, MG-17, and MG-18, the Permittee shall limit the emissions of oxides of nitrogen, as follows:[8]

[8] This subcondition is different in form compared to the applicable requirement from the construction permit.

Table D – NOx Limits to Avoid PSD Review

EU IDs	NOx Limits
MG-17 (w/ SCR)	79.7 tons per consecutive 12-month period
MG-3	457.0 tons per consecutive 12-month period (When MG-18 operates as a backup to MG-3, include MG-18 emissions to count for the purpose of this listed limit)
MG-1 through MG-6, MG-17 (w/ SCR) and MG-18	3,193.2 tons per consecutive 12-month period, combined
MG-1, MG-3, MG-4 and MG-5	2,050.0 tons per consecutive 12-month period, combined

[Condition 20.2, Construction Permit 9932-AC005 Rev 2, 7/16/03]

30.2 For EU ID MG-17, maintain 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 30.3a and 30.3b. 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.

[Condition 20.4(a) ~~–(~~) through (c), Construction Permit 9932-AC005 Rev 2, 7/16/03]

30.3 **Emissions Monitoring for EU ID MG-17 with SCR Control**. The Permittee shall comply with the following:

a. Conduct NOx emissions sampling each week EU ID MG-17 operates and within 24 hours after catalyst bed replacement, catalyst element exchange, and after changes in the SCR control system, set points, load curve (mapping) or urea injection rate.

(i) Use a Testo 350 diesel engine exhaust tester, or similar handheld analyzer, for the NOx emissions sampling.

(ii) Install exhaust gas sampling ports upstream and downstream of the SCR system for the handheld analyzer and source tests.

(iii) For the handheld analyzer, develop sampling traverse points of no less than three points to ensure representative sampling for each sampling port. Handheld analyzer sampling traverse points must be representative of the exhaust flow.

(iv) Measure NOx, O_2, and stack temperature at sampling ports upstream and downstream of the SCR control at each traverse point.

(v) Record the results from each traverse point. Sum up results from each traverse point and calculate the average concentration upstream and downstream of the SCR control system. Calculate and record the average NOx percent removal.

(vi) If the SCR control is achieving less than 85 percent removal of NOx, as calculated in Condition 30.3a(v), take corrective action upon discovery and repeat measurements within 24 hours. If corrective action does not increase the NOx removal efficiency to 85 percent or greater, notify the Department in accordance with Condition 117.

b. Perform source testing of EU ID MG-17 with SCR control no less than once every 8,000 hours of operation after initial startup.

(i) Conduct source tests for NOx, O_2, and ammonia (NH_3) in accordance with Section 7 and as follows:

(A) Determine the NO_X emission rate, the NH_3 emission rate, the load curve, the urea reagent concentration, the urea flow rate, and the fuel consumption rate.

(B) Conduct upstream and downstream NO_X emissions testing concurrently.

(C) Conduct downstream NH_3 testing concurrently with the NO_X emission test.

(D) Sample with handheld analyzer before each run.

(E) Calculate NO_X and NH_3 emission rates using Method 19.

(F) The source test shall include the highest achievable load point and no less than three additional load points representing the normal operating range of EU ID MG-17.

[Condition 6, Minor Permit AQ0290MSS13, MM/DD/~~2022~~2023]

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

[Condition 20.3(a), Construction Permit 9932-AC005 Rev 2, 7/16/03]

a. When EU ID MG-17 is operating, demonstrate compliance with the limit in Condition 30.4 as follows:

(i) Monitor and record the NH_3 concentration daily using a continuous emissions monitoring system (CEMS). Calculate and record the 7-day rolling average NH_3 concentration; or

(ii) If the CEMS or data logger is not operating, monitor and record the NH_3 concentration ~~-~~once per week using Drager tubes in the 2-30 ppm range.

b. Include the following with the operating report required by Condition 118:

(i) The highest 7-day rolling average NH_3 concentration from Condition 30.4a(i) when using the CEMS; and

(ii) The weekly measured NH_3 concentrations from Condition 30.4a(ii) when the CEMS or datalogger is not operating.

c. Report in accordance with Condition 117, whenever the limit in Condition 30.4 is not met.

[18 AAC 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a) & (c)(6)]

30.5 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.

[Condition 20.6(a) & (b), Construction Permit 9932-AC005 Rev 2, 7/16/03]

c. For each calendar month, calculate and record the monthly NOx 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 emissions unit. The Permittee may use the listed Emission Factors or emission factors based on the most recent Department accepted source test results.

(i) If the Department does not object in writing within 60 days of the Department's receipt of the source test report, the Permittee may use the NOx emission factor determined by the source test, beginning with the month the test was performed.

M = Emission Factor x (hours of operation each month) x (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 (with SCR control) = 18.2 lbs/hour

[Condition 7.1, Minor Permit AQ0290MSS13, MM/DD/~~2022~~2023]

d. Report the following records with the Operating Report required by Condition 118:

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

[Condition 20.6(d), Construction Permit 9932-AC005 Rev. 2, 7/16/03]

(vii) The 12-month rolling NOx emissions in tpy to demonstrate compliance with each of the limits in Table D.

[18 AAC 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a) & (c)(6)]

31. Limits to Avoid PSD Review for NOx. Prior to the mill expansion becoming fully operational,[9] the Permittee shall limit NOx emissions from EU MG-18 to no more than 79.7 tons per year (tpy) by installing and maintaining, consistent with manufacturer's specifications, a SCR emission control system that will limit the short-term NOx emissions to no greater than 18.2 lbs/hr.

31.1 Monitor performance of SCR system as set out in Conditions 31.2. Perform the necessary maintenance and operation practices following the vendor guidelines to ensure compliance with the NOx limit.

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

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

31.2 Perform NOx source testing of EU ID MG-18 with the SCR system operating, in accordance with the requirements set forth in Section 7 of this permit and as follows:

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

b. Calculate NO_X emission rate using Method 19.

c. The source test shall include the maximum achievable engine load and no less than three additional load points representing the diesel engine operating range as typically operated.

[Condition 5, Minor Permit AQ0290MSS09, 5/3/18]
[18 AAC 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

d. The source testing frequency shall be

[9] The mill expansion is considered fully operational when testing and commissioning of new and upgraded equipment is completed.

(i) no less than once every 8,000 hours of operation after the initial source test, and

(ii) within 90 days after SCR catalyst bed replacement or SCR catalyst element exchange unless a NOx source test has been conducted in the previous 11 months.

31.3 Notify the Department under Condition 117, if the Permittee fails to comply with any requirements in Condition 31.

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

32. 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:

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

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

b. Operate as set out in Conditions 27.1 and 27.3.

c. Report under Condition 117 if EU IDs MG-1 through MG-6 and MG-18 exceed the limit in Condition 32.1a.

[Condition 19, Construction Permit 0032-AC018 Rev.1, 11/26/02]
[Condition 21, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

32.2 **PM Recurring Testing.** The Permittee shall monitor compliance with the short-term PM limit in Condition 32.1a as follows:

a. Conduct a source test on one representative unit of EU IDs MG-1 through MG-6 and MG-18 no later than five years after the preceding PM source test.

(i) **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 27.2a 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 27.2, 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 109:

(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:

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

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

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

iv. 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 31.

b. Record and report the results of source tests conducted under Condition 32.2a as set out in Section 7.

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

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

33.1 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 AQ0290MSS02, 6/9/05]

33.2 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 33.2b with the operating report required by Condition 118.

d. Report, using the procedures described in Condition 117, if the cumulative 12-month operation exceeds 9,500 hours.

[Condition 2.2, Minor Permit AQ0290MSS02, 6/9/05]

33.3 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 7 to verify the emission factors.

(v) Keep records of all corrective actions as per Condition 33.1b.

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.

[Condition 3, Minor Permit AQ0290MSS02, 6/9/05]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

34. Limit to Avoid Minor Permit Classification for Sulfur Dioxide for EU ID MXG-101a. 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-101a 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.

34.1 Monitor, record, and report in accordance with Condition 19.

[Condition 10, Minor Permit AQ0290MSS06 Rev. 1, 5/5/09]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

35. Limit to Avoid PSD Review for $PM_{2.5}$. The Permittee shall limit the operation of EU IDs MD-11, MD-12, and MD-13 to no greater than 5,000 hours each, in any consecutive 12-month period.

35.1 Monitor and record the monthly hours of operation for each of EU IDs MD-11, MD-12, and MD-13.

35.2 Before the end of each calendar month, calculate and record the total hours of operation for the previous month, then calculate the 12 month rolling total hours of operation by adding to the previous 11 months for each of EU IDs MD-11, MD-12, and MD-13.

35.3 Report the monthly and rolling 12-month hours of operation for EU IDs MD-11, MD-12, and MD-13, in the operating report required by Condition 118, for the period covered by the report.

35.4 Notify the Department under Condition 117, anytime the consecutive 12-month operating hours exceed the limit in Condition 35.

[Condition 9, Minor Permit AQ0290MSS09, 5/3/18]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

36. Limits Avoid PSD Review for NOx, CO, PM, PM_{10}, $PM_{2.5}$, and SO_2. The Permittee shall limit the emissions of NOx, CO, PM, PM_{10}, $PM_{2.5}$, and SO_2 from EU IDs AP-11 through AP-15 and AP-17 to less than that the permitting thresholds under 18 AAC 50.502(c)(3) and 40 CFR 52.21(b)(23)(i) as follows:

36.1 For EU IDs AP-11 through AP-15 and AP-17:

a. Limit the hot mix asphalt (HMA) production to no more than 40,000 tons per 12-month rolling period.

b. Monitor and record the daily quantity of HMA produced each day the Asphalt Plant operates, using a weigh scale accurate to within ± five-percent.

c. By the 15th day of each month, calculate and record:

(i) the total quantity of HMA produced during the previous month, if the scale is not operational assume continuous operation for that period; and

(ii) the total quantity of HMA produced during the previous 12 consecutive months, using the records required by Condition 36.1c(i);

d. Report in the operating report required under Condition 118, the following information for each month of the reporting period:

(i) the highest daily quantity of HMA produced for each month covered by the reporting period; and

(ii) the total quantity of HMA produced for the previous 12 consecutive month period;

e. Report in accordance with Condition 117, whenever the limit in Condition 36.1a is exceeded, or if Conditions 36.1b through 36.1d are not met.

36.2 Install, operate, and maintain a baghouse on the Asphalt Plant, EU AP-15, according to the manufacturer's specifications, at all times during HMA production and as follows:

a. At the end of each run, operate the baghouse fans until the baghouse has been purged of exhaust gases per the manufacturer's recommendations;

b. Monitor the pressure drop across the baghouse and the baghouse outlet temperature ensuring they remain within the manufacturer's recommendations or specifications;

c. Perform inspections of the equipment and complete necessary maintenance:

(i) prior to equipment startup in a new location and after shutdown periods lasting more than 5 days; and

(ii) every 30 days of operation at the same location;

d. Replace worn or damaged bags within 72 hours of discovery;

e. Operate the baghouse efficiently to control opacity and particulate matter emissions;

f. Keep a daily production log showing the following:

(i) pressure drop across the baghouse and the baghouse outlet temperature at the beginning of each production day; and

(ii) pressure drop across the baghouse and the baghouse outlet temperature at the end of each production day;

g. Keep a record of the baghouse inspections showing the following:

(i) date of inspection and name of person conducting the inspection;

(ii) number of worn or damaged bags detected and the date discovered;

(iii) number of bags replaced and date replaced;

(iv) number of worn or damaged seals/gaskets detected and the date discovered; and

(v) number of seals/gaskets replaced and the date replaced.

h. Submit a summary of the records and information required by Condition 36.2 in the operating report required under Condition 118.

[Condition 19, Minor Permit AQ0290MSS08, 4/14/17]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

37. Limit to Avoid Ambient Air Quality Analysis under 18 AAC 50.540(c)(2). The Permittee shall limit each of EU IDs AP-19 and AP-20 to no more than 720 hours per 12-month rolling period as follows:

37.1 Install, maintain, and operate a non-resettable hour meter on each EU listed in Condition 37;

37.2 Record the hour meter reading for each EU listed in Condition 37 on the last day of each month;

37.3 By the 15th day of each month, calculate and record:

a. the number of hours each EU listed in Condition 37 operated during the previous month, if the meter is not operational assume continuous operation for that period; and

b. the total number of hours each EU listed in Condition 37 operated during the previous 12 consecutive months.

37.4 Report in the operating report required under Condition 118 the following information for each month of the reporting period:

a. the hour meter reading obtained under Condition 37.2 for each EU listed in Condition 37; and

b. the values determined under Condition 37.3b for each EU listed in Condition 37.

37.5 Report in accordance with Condition 117, whenever the limit in Condition 37 is exceeded, or if Conditions 37.1 through 37.4 are not met.

[Condition 20, Minor Permit AQ0290MSS08, 4/14/17]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

38. Limit to Avoid Minor Permitting under 18 AAC 50.502(c)(3) for NOx. The Permittee shall limit NOx emissions from EU ID MG-29 to 12.75 tpy by limiting the operation of EU ID MG-29 to 4,550 hours per consecutive 12-month period. Monitor, record, and report as follows:

38.1 Install and operate a dedicated hour meter on EU ID MG-29.

38.2 Record the hour meter reading for EU ID MG-29 on the last day of each month.

38.3 By the 15th day of each month, calculate and record:

a. the number of hours EU ID MG-29 operated during the previous month (if the meter is not operational and start- and stop-time records are not available, assume continuous operation for that period); and

b. the total number of hours EU ID MG-29 operated during the previous 12-month period.

38.4 Include in each operating report required by Condition 118, the records required by Conditions 38.2 and 38.3.

38.5 Report in accordance with Condition 117, if the Permittee fails to comply with any requirements of Condition 38.

[Condition 8, Minor Permit AQ0290MSS13, MM/DD/2022]
[18 AAC 50.040(j) & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

Limit to Allow Reclassification from Hazardous Air Pollutant (HAP) Major Source to HAP Area Source under 40 CFR 63.2

39. HAP Emissions. On the date Red Dog Mine begins operating as an area source,[10] the Permittee shall limit HAP emissions from EU ID MF-6 to no more than 5 tpy as follows:

39.1 Use only ethanol and/or brine[11] fluids for freeze protection.

39.2 Include in the operating report required under Condition 118, an affirmation that only ethanol and/or brine fluids have been used as freeze protection. Retain purchase records for all materials used as freeze protection and provide to the Department upon request.

39.3 Report in accordance with Condition 117, if the Permittee fails to comply with any requirements of Condition 39.

[Condition 5, Minor Permit AQ0290MSS12, 4/26/22]

Insignificant Emissions Units

40. For EU IDs MT-1 through MT-4, MH-4, MD-12, and MD-13 listed in Table A, and emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

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

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

40.2 **Particulate Matter Standard:** The Permittee shall not cause or allow particulate matter emitted from an industrial process or fuel-burning equipment to exceed 0.05

[10] The Department was notified 5/11/22 that the source stopped using methanol on 3/18/22.
[11] Brine fluids attain their densities from dissolved organic or inorganic salts.

grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.055(b)(1)]

40.3 **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)]

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

a. Submit the compliance certification of Condition 119 based on reasonable inquiry;

b. Comply with the requirements of Condition 99; and

c. Report in the operating report required by Condition 118 if an emissions unit has historically been classified as insignificant because of actual emissions less than the thresholds of 18 AAC 50.326(e) and current actual emissions have become greater than any of those thresholds

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 40.1, 40.2, and 40.3.

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

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

41. 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:

41.1 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.

41.2 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.

41.3 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 43.4 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

41.4 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.

42. 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:

42.1 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.

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

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

43. 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:

43.1 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.

43.2 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.

43.3 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.

43.4 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

43.5 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.

44. 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:

44.1 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.

44.2 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.

44.3 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

44.4 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.

44.5 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.

44.6 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.

44.7 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 9932-AC005 Rev. 2, 7/16/03]
[18 AAC 50.040(j) ~~and~~ & 18 AAC 50.326(j)]
[40 CFR 71.6(a)]

Section 5. Federal Requirements

40 CFR Part 50 National Primary and Secondary Ambient Air Quality Standards

National Ambient Air Quality Standards (NAAQS) for Lead (Pb)

45. The national primary and secondary ambient air quality standards for lead and its compounds are met when the maximum arithmetic 3-month mean concentration for a 3-year period, as determined in accordance with Appendix R of 40 CFR Part 50, is less than or equal to 0.15 micrograms per cubic meter ($\mu g/m^3$).

[18 AAC 50.040(j)(4), & 50.326(j)(3)
[40 CFR 71.6(a)(1), (a)(3), & (c)(6)]
[40 CFR 50.16(b)]

45.1 The Permittee shall furnish to the Department any information necessary to submit a renewed lead monitoring waiver request to EPA.

40 CFR Part 60 New Source Performance Standards (NSPS)

Subpart A – General Provisions

46. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[12] or existing facility[13] regulated under NSPS requirements in 40 CFR 60, the Permittee shall furnish the Administrator[14] written or electronic notification of:

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

46.1 the date that construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date;

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

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

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

46.3 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 CFR 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

[12] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 CFR 60.2.
[13] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.
[14] The Department defines the "Administrator" to mean "EPA and the Department".

d. the expected completion date of the change;

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

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

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

46.5 the anticipated date for conducting the opacity observations required by 40 CFR 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 CFR 60.7(a)(6), Subpart A]

46.6 that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by 40 CFR 60.8 in lieu of Method 9 observation data as allowed by 40 CFR 60.11(e)(5). This notification shall be postmarked not less than 30 days prior to the date of the performance test; and

[40 CFR 60.7(a)(7), Subpart A]

46.7 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 60 days or as soon as practicable before commencement of replacement, and including the following information:

[40 CFR 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.

47. 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-27 through MG-29, AP-11 through AP-15, AP-17, MD-1 through MD-4, MD-6 through MD-10[15], MF-4, and PRC-2a through PRC-11a, any malfunction of the 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 CFR 60.7(b), Subpart A]

48. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit excess emissions and monitoring systems performance (EEMSP)[16] report (excess emissions are defined in applicable subparts) to the Administrator any time a limit in Condition 60.1a 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 49. Written reports of excess emissions shall include the following information:

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

48.1 The magnitude of excess emissions computed in accordance with Condition 54.3, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

48.2 Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU ID(s) MD-2 and MD-3, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

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

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

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

[15] EU IDs MD-7 and MD-8 are the respective baghouse emission points for industrial processes MF-2 and MF-3.
[16] The federal EEMSP report is not the same as the state excess emission report required by Condition 117.

49. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Administrator one "summary report form" in the format shown in Figure 1 of 40 CFR 60.7 (see Section 16) 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 six-month period, except when more frequent reporting is specifically required by an applicable subpart or the EPA, as follows:

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

49.1 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 48 is requested, or

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

49.2 If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP** report described in Condition 48.

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

50. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to Section 7 and as required in this condition on any affected facility.

[18 AAC 50.040(a)(1)]

50.1 Except as specified in 40 CFR 60.8(a)(1),(a)(2), (a)(3), and (a)(4), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by 40 CFR Part 60, and at such other times as may be required by the Administrator, the Permittee shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

[40 CFR 60.8(a), Subpart A]

51. 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-27 through MG-29, AP-11 through AP-15, AP-17, MD-1 through MD-4, MD-6 through MD-10, MF-4, and PRC-2a through PRC-11a, 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 MD-1 through MD-4, MD-6 through MD-10, MF-4, and PRC-2a through PRC-11a.

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

52. **NSPS Subpart A Credible Evidence.** For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of the standards set forth in Conditions 60, 62 and 67, nothing in 40 CFR Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs MG-27 through MG-29, AP-11 through AP-15, AP-17, MD-1 through MD-4, MD-6 through MD-10, MF-4, and PRC-2a through PRC-11a would have been in compliance with applicable requirements of 40 CFR Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

53. **NSPS Subpart A Concealment of Emissions.** The Permittee shall not build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of a standard set forth in Conditions 60, 62 and 67. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[18 AAC 50.040(a)(1)]
[40 CFR 60.12, Subpart A]

54. **NSPS Subpart A, Monitoring.** For a CMS required under Condition 60.4, the Permittee shall comply as follows:

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

54.1 All CMS and monitoring devices shall be installed and operational prior to conducting performance tests under Condition 50. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

[40 CFR 60.13(b), Subpart A]

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

[40 CFR 60.13(f), Subpart A]

54.3 Reduce data in accordance with the following:

a. For CMS other than opacity, reduce all data to 1-hour averages for time periods as defined in 40 CFR 60.2. One-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

[40 CFR 60.13(h)(1) & (2), Subpart A]

(i) Except as provided under Condition 54.3a(iii) for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid

data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

(ii) Except as provided under Condition 54.3a(iii) for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

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

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

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

(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of Condition 54.3a(iii) are met, based solely on valid data recorded after the successful calibration.

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

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

(vii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g. hours with 30 minutes of unit operation under 40 CFR 60.47b(d)).

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

b. All excess emissions shall be converted into units of the standard in Condition 60.1 using the applicable conversion procedures specified in 40 CFR 60 Subpart LL. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.

[40 CFR 60.13(h)(3), Subpart A]

Subpart Dc – Small Steam Generating Units

55. **NSPS Subpart Dc Notification Requirement**. The Permittee of each affected facility shall submit notification of the date of construction or reconstruction, and actual startup, as provided by Condition 46. The notification shall include:

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

55.1 The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

55.2 If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR 60.42c or 60.43c.

55.3 The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

[40 CFR 60.48c(a)(1) ~~) (~~) through (3), Subpart Dc]

56. **NSPS Subpart Dc Fuel Consumption**. For each of EU IDs MH-6 through MH-8, the Permittee shall record and maintain records of the amounts of each fuel combusted during each operating day. As an alternative, the owner or operator of an affected facility that combusts only fuels using fuel certification in 40 CFR 60.48c(f) to demonstrate compliance with the SO_2 standard may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

[18 AAC 50.040(a)(2)(D), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)]
[40 CFR 60.48c(g)(1) & (2), Subpart Dc]

57. **NSPS Subpart Dc Sulfur Standards**. For EU IDs MH-6 through MH-8, the Permittee shall at all times including periods of startup, shutdown, and malfunction, **either** emit a maximum of 0.5 lb SO_2/MMBtu heat input from oil; **or,** as an alternative, combust fuel oil that contains 0.5 weight percent sulfur or less.

[18 AAC 50.040(a)(2)(D), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.42c(d), Subpart Dc]

57.1 **Monitoring.** Compliance with the emission limits or fuel oil sulfur limits may be determined based on certification from the fuel supplier.

[40 CFR 60.42c(h) & 60.44c(h), Subpart Dc]

57.2 **Recordkeeping and Reporting**. The Permittee shall keep records for a period of two years following the date of such records and submit reports to EPA as follows:

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

a. Include the calendar dates covered in the reporting period and a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

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

b. For distillate fuel oil, the supplier certification shall include the following information:

(i) the name of the oil supplier;

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

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

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

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

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

Subpart I – Hot Mix Asphalt Facilities

58. NSPS Subpart I Particulate Matter Emissions Standard. The Permittee shall not allow the hot mix asphalt facility, EU IDs AP-11 through AP-15, and AP-17, that is constructed or modified after June 11, 1973 to discharge or cause the discharge into the atmosphere, any gases which contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf) or exhibit 20 percent opacity, or greater.

[18 AAC 50.040(a)(2)(I)]
[40 CFR 60.92(a), Subpart I]

58.1 **Monitoring.** In conducting the performance tests required in 40 CFR 60.8, the Permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.93, except as provided in 40 CFR 60.8(b). The Permittee shall determine compliance with the particulate matter standards in Condition 58 as follows:

a. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf); and

b. Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

58.2 The Permittee shall determine compliance with Condition 58 by meeting the requirements of Conditions 7 and 9.

58.3 Report in accordance with Condition 117, if the PM emissions standards in Condition 58 are exceeded or if Conditions 7 or 9 are not met.

[18 AAC 50.040(a)(2)(I)]
[40 CFR 60.93(a) & (b), Subpart I]

~~**Subpart O – Sewage Treatment Plants**~~

~~**59. Exemption Requirements.** To demonstrate that the incinerators are exempt from the requirements of NSPS Subpart O, the Permittee shall limit the amount of waste combusted in each of EU IDs MI-2 and MI-3, to no more than 10 percent sewage sludge (dry basis) and no more than 1,000 kilograms (2,205 pounds) per day of sewage sludge (dry basis). Monitor, record, and report as follows:~~

~~[18 AAC 50.040(a)(2)(Q), (j)(4), & 50.326(j)]~~
~~[40 CFR 71.6(a)(1) & (a)(3)]~~
~~[40 CFR 60.150(a), Subpart O]~~

~~59.1 For each of EU IDs MI-2 and MI-3, keep records on a daily basis of the following:~~

~~a. the weight of sewage sludge (dry basis) (W_{ss}) combusted;~~

~~b. the weight of all other fuels and wastes combusted.~~

~~c. the total weight of all fuels and wastes (W_{total}) combusted (i.e. the sum of the weights recorded in Conditions 59.1a and 59.1b).~~

~~d. the percent by weight of sewage sludge (dry basis) ($W_{ss}/W_{total} * 100$) combusted in each of EU IDs MI-2 and MI-3.~~

~~59.2 Include the records of Conditions 59.1a and 59.1d in the operating report of Condition 118.~~

~~59.3 Report in accordance with Condition 117 if the quantity of sewage sludge combusted in either EU ID MI-2 or MI-3 exceeds the limits in Condition 59.~~

Commented [CDL8]: See Comment No. 6 to Attachment I.

Subpart LL – Metallic Mineral Processing Units

~~60.~~**59.** **NSPS Subpart LL.** For EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-4, the Permittee shall comply with the applicable requirements of the following:

~~60.1~~59.1 **Particulate Matter and Opacity Standards.** No owner or operator subject to the provisions of 40 CFR 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 (0.05 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.

~~60.2~~59.2 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 CFR 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), (j)(4), & 50.326(j)]
[40 CFR 60.382(a) & (b), Subpart LL]

~~60.3~~59.3 **Particulate Matter and Opacity Recurring Testing.** The Permittee shall demonstrate compliance with Condition 60.1 as follows:

a. **Recurring Stack Test**: On a representative unit as specified in Condition 60.3a(i), conduct the source test in accordance with Condition 60.6 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: 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 emissions unit not tested in the prior source test.

b. For 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 60.1b.

c. For MD-1, MD-4, MD-6, if required by Condition 26, also monitor, record and report in accordance with Conditions 3 through 5 to demonstrate compliance with the opacity limit of Condition 60.1b.

d. For MF-4, monitor, record and report in accordance with Conditions 3 through 5 to demonstrate compliance with the opacity limit of Condition 60.2.

e. Record and report results of the source tests performed in accordance with Condition 60.3a in accordance with Section 7.

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

~~60.4~~59.4 **Monitoring of Wet Scrubber Operations.** The owner or operator subject to 40 CFR 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 CFR 60.384(a) & (b), Subpart LL]

[17] See Note 4 to Table A - Emissions Unit Inventory.

~~60.5~~59.5 **Reporting and Recordkeeping**.

a. The owner or operator subject to the provisions of 40 CFR 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 CFR 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 60.5c shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

[18 AAC 50.040(a)(2)(X)]
[40 CFR 60.385(a) –through (d), Subpart LL]

~~60.6~~59.6 **Test Methods and Procedures**.

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

b. The owner or operator shall determine compliance with the particulate matter standards of Condition 60.1 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 CFR 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 60.5c, the owner or operator shall use the monitoring devices in Condition 60.3 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 CFR 60.386(a) –through (c), Subpart LL]

Subpart OOO – Nonmetallic Mineral Processing Units

~~61.~~**60. NSPS Subpart OOO Requirements.** For EU IDs PRC-2a through PRC-11a, the Permittee shall comply with any applicable requirement for nonmetallic mineral processing plants that commence construction, modification, or reconstruction on or after April 22, 2008.

[18 AAC 50.040(a)(2)(FF), (j)(4), & 50.326(j)]
[40 CFR 60.670(a)(1) & (e), Subpart OOO]
[40 CFR 71.6(a)(1)]

~~61.1~~60.1 Comply with the applicable provisions of 40 CFR 60 Subpart A. Table 1 of 40 CFR 60 Subpart OOO specifies the provisions of 40 CFR 60 Subpart A that do not apply to owners and operators of affected facilities subject to 40 CFR 60 Subpart OOO or that apply with certain exceptions.

[40 CFR 60.670(f) & Table 1, Subpart OOO]

~~62.~~**61. NSPS Subpart OOO Particulate Matter Standards.** For EU IDs PRC-2a through PRC-11a, the Permittee shall meet the fugitive emission limits and compliance requirements in Table 3 of 40 CFR 60 Subpart OOO as follows:

~~62.1~~61.1 Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of 40 CFR 60 Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40 CFR 60.11. The requirements in Table 3 of 40 CFR 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

[40 CFR 60.672(b), Subpart OOO]

~~62.2~~61.2 For affected facilities that commence construction, modification, or reconstruction after April 22, 2008, the owner or operator must meet the following fugitive emission limits:

a. 7 percent opacity for EU IDs PRC-2a through PRC-4a and PRC-7a through PRC-11a (grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations); and

b. 12 percent opacity for EU IDs PRC-5a and PRC-6a (crushers at which a capture system is not used).

~~62.3~~61.3 The requirements in Table 3 of 40 CFR 60 Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

~~62.4~~61.4 Truck dumping of nonmetallic minerals into any screening operation, feed hopper (EU ID PRC-1a), or crusher is exempt from the requirements of Condition 62.

[40 CFR 60.672(b), (d), & Table 3, Subpart OOO]

~~63.~~62. **NSPS Subpart OOO Monitoring of Operations**. The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under 40 CFR 60.676(b).

[40 CFR 60.674(b), Subpart OOO]

~~64.~~63. **NSPS Subpart OOO Test Methods and Procedures.** In conducting the performance tests required in 40 CFR 60.8, the Permittee shall use as reference methods and procedures the test methods in Appendices A-1 through A-7 of 40 CFR 60 or other methods and procedures as specified in Subpart OOO, except as provided in 60.8(b).

[40 CFR 60.675(a), Subpart OOO]

~~64.1~~63.1 In determining compliance with the particulate matter standards in 40 CFR 60.672(b) or 60.672(e)(1), the Permittee shall use Method 9 of 40 CFR 60, Appendix A-4 and the procedures in 40 CFR 60.11, with the following additions:

[40 CFR 60.675(c)(1), Subpart OOO]

a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.,* road dust). The required observer position relative to the sun (Method 9 of appendix A-4 of 40 CFR part 60, Section 2.1) must be followed.

c. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

[40 CFR 60.675(c)(1)(i~~) (~~) through (iii), Subpart OOO]

~~64.2~~63.2 When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b) or 60.672(e)(1), the duration of the Method 9 (40 CFR 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits must be based on the average of the five 6-minute averages.

[40 CFR 60.675(c)(3), Subpart OOO]

~~64.3~~63.3 The Permittee may use alternatives to the reference methods and procedures as specified in 40 CFR 60.675(e).

[40 CFR 60.675(e), Subpart OOO]

~~64.4~~63.4 For performance tests involving only Method 9 (40 CFR 60 Appendix A-4) testing, the Permittee may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

[40 CFR 60.675(g), Subpart OOO]

~~64.5~~63.5 If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in 40 CFR 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 CFR 60.675(i), Subpart OOO]

~~65.~~**64.** **NSPS Subpart OOO Reporting and Recordkeeping**. The Permittee shall submit reports as follows:

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

~~65.1~~64.1 Submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672, including reports of opacity observations made using Method 9 (40 CFR 60, Appendix A-4) to demonstrate compliance with 60.672(b), (e) and (f).

[40 CFR 60.676(f), Subpart OOO]

~~65.2~~64.2 The Subpart A requirement under 40 CFR 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under this subpart.

[40 CFR 60.676(h), Subpart OOO]

~~65.3~~64.3 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 CFR 60.676(i), Subpart OOO]

~~65.4~~64.4 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 10 or the state which has been delegated authority according to 40 CFR 60.4(b).

[40 CFR 60.676(k), Subpart OOO]

Subpart IIII – Stationary Compression Ignition Internal Combustion Engines

~~66.~~65. **NSPS Subpart IIII Applicability.** For EU IDs MG-27 through MG-29, the Permittee shall comply with any applicable requirements of 40 CFR 60 Subpart IIII for stationary compression ignition (CI) internal combustion engines (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 AAC 50.040(a)(2)(OO), (j)(4), & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4200(a)(2)(i), Subpart IIII]

~~66.1~~65.1 Operate and maintain the stationary CI ICE and control device according to the manufacturer's emission-related written instructions over the entire life of the engine. In addition, the Permittee may change only those emission-related settings that are permitted by the manufacturer.

[40 CFR 60.4206 & 60.4211(a), Subpart IIII]

~~66.2~~65.2 Comply with the applicable provisions of Subpart A as specified in Table 8 to Subpart IIII.

[40 CFR 60.4218 & Table 8, Subpart IIII]

~~67.~~66. **NSPS Subpart IIII Emission Standards.** The Permittee shall comply with the applicable emission standards for emergency engines EU IDs MG-27 and MG-28 and non-emergency engine MG-29, as listed below.

[18 AAC 50.040(a)(2)(OO), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 60.4204(b) & 60.4205(b), Subpart IIII]

~~67.1~~66.1 The Permittee shall comply with the emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 1039, Appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.

a. Notwithstanding the requirements in Condition 67.1, EU IDs MG-27 and MG-28 may be certified to the provisions of 40 CFR Part 1042.

[40 CFR 60.4205(b), 60.4202(a)(2), 60.4202(g)(1), Subpart IIII]

~~67.2~~66.2 The Permittee shall comply with the emission standards for new marine CI engines for the same model year and maximum engine power in 40 CFR 1039.102 for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007.

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

a. Notwithstanding the requirements in Condition 67.2, EU ID MG-29 may be certified to the provisions of 40 CFR Part 1042.

[40 CFR 60.4204(b), 60.4201(a), 60.4201(f)(1), & 60.4211(c), Subpart IIII]
[40 CFR 1039 and 1042, Subchapter U]
[40 CFR 1039.105, Subpart B]

~~68.~~67. **NSPS Subpart IIII Monitoring, Compliance and Recordkeeping**. The Permittee shall meet the following requirements:

[18 AAC 50.040(a)(2)(OO), (j)(4), & 50.326(j)]
[40 CFR 60.4209, 60.4211, Subpart IIII]

~~68.1~~67.1 For EU IDs MG-27 and MG-28, maintain a non-resettable hour meter in use on the engines.

[40 CFR 60.4209(a), Subpart IIII]

~~68.2~~67.2 For EU IDs MG-27 and MG-28 demonstrate compliance according to the methods specified in Conditions 68.2a and 68.2b:

a. Purchase an engine certified to the emission standards in 40 CFR 60.4205(b), as provided in Condition 67, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g).

[40 CFR 60.4211(c), Subpart IIII]

b. Operate the emergency stationary ICE according to the requirements in Conditions 68.2b(i) through 68.2b(iii). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in nonemergency situations for 50 hours per year, as described in Conditions 68.2b(i) through 68.2b(iii), is prohibited. If you do not operate the engine according to the requirements in Conditions 68.2b(i) through 68.2b(iii), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(ii) You may operate your emergency stationary ICE for the purpose specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 68.2b(iii) counts as part of the 100 hours per calendar year allowed by this Condition 68.2b(ii).

(iii) 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 provided in Condition 68.2b(ii). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for nonemergency situations cannot be used for peak

shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f), Subpart IIII]

c. 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.

d. Keep records of:

(i) Maintenance conducted on the engine;

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

(iii) 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 CFR 71.6(a)(3)(i) & (ii)]

~~68.3~~67.3 For EU ID MG-29, demonstrate compliance by purchasing an engine certified to the emission standards in 40 CFR 60.4204(b), as provided in Condition 67, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g).

[40 CFR 60.4211(c), Subpart IIII]

~~69.~~**68. NSPS Subpart IIII Fuel Requirements.** The Permittee shall comply with the applicable fuel requirements in 40 CFR 60.4207, and as provided under 40 CFR 60.4216, for engines EU ID MG-27 through MG-29 operated in Alaska, as follows:

[18 AAC 50.040(a)(2)(OO), (j)(4), & 50.326(j)]
[40 CFR 60.4207 & 60.4216, Subpart IIII]

~~69.1~~68.1 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.

[40 CFR 60.4207(b), Subpart IIII]
[40 CFR 80.510(a) & (b), Subpart I]

~~69.2~~68.2 The provisions of 40 CFR 60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE that are located in remote areas of Alaska.

[40 CFR 60.4216(d), Subpart IIII]

~~69.3~~68.3 The provisions of this section and 40 CFR 60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in remote areas of Alaska from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must

be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11

[40 CFR 60.4216(f), Subpart IIII]

40 CFR Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart A – General Provisions

~~70.~~69. **Applicability after a relevant standard has been set.** A major source may become an area source at any time upon reducing its emissions of and potential to emit hazardous air pollutants, as defined in 40 CFR 63 Subpart A, to below the major source thresholds established in 40 CFR 63.2, subject to the provisions in Conditions 70.1 and 70.2.

[18 AAC 50.040(c)(1); 18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.1(c)(6), Subpart A]

~~70.1~~69.1 A major source reclassifying to area source status is subject to the applicability of standards, compliance dates and notification requirements specified in Condition 70.1a. An area source that previously was a major source and becomes a major source again is subject to the applicability of standards, compliance dates, and notification requirements specified in Condition 70.1b.

a. A major source reclassifying to area source status under 40 CFR 63 remains subject to any applicable major source requirements established under 40 CFR 63 until the reclassification becomes effective. After the reclassification becomes effective, the source is subject to any applicable area source requirements established under 40 CFR 63 immediately, provided the compliance date for the area source requirements has passed. The owner or operator of a major source that becomes an area source subject to newly applicable area source requirements under 40 CFR 63 must comply with the initial notification requirements pursuant to 40 CFR 63.9(b). The owner or operator of a major source that becomes an area source must also provide to the Administrator any change in the information already provided under 40 CFR 63.9(b) per Condition 71.1.

b. An area source that previously was a major source under 40 CFR 63 and that becomes a major source again is subject to the applicable major source requirements established under 40 CFR 63 immediately upon becoming a major source again, provided the compliance date for the major source requirements has passed, notwithstanding any provision within the applicable subparts. The owner or operator of an area source that becomes a major source again must comply with the initial notification pursuant 40 CFR 63.9(b). The owner or operator must also provide to the Administrator any change in the information already provided under 40 CFR 63.9(b) per Condition 71.1.

~~70.2~~69.2 Becoming an area source does not absolve a source subject to an enforcement action or investigation for major source violations or infractions from the consequences of any actions occurring when the source was major. Becoming a major source does not absolve a source subject to an enforcement action or

investigation for area source violations or infractions from the consequences of any actions occurring when the source was an area source.

[40 CFR 63.1(c)(6)(i) & (ii), Subpart A]

~~71.~~70. NESHAP Subpart A Notification Requirements

~~71.1~~70.1 **Change in information already provided**. Any change in the information already provided under 40 CFR 63.9 shall be provided to the Administrator within 15 calendar days after the change. The owner or operator of a major source that reclassifies to area source status is also subject to the notification requirements of this Condition. The owner or operator may use the application for reclassification with the regulatory authority (*e.g.,* permit application) to fulfill the requirements. Beginning January 19, 2021, the owner or operator of a major source that reclassifies to area source status must submit the notification according to the requirements of 40 CFR 63.9(k). A notification of reclassification must contain the following:

a. The name and address of the owner or operator;

b. The address (i.e., physical location) of the affected source;

c. An identification of the standard being reclassified from and to (if applicable); and

d. Date of effectiveness of the reclassification.

[40 CFR 63.9(j), Subpart A]

~~71.2~~70.2 If you are required to electronically submit a notification or report by 40 CFR 63.9(k) through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the electronic submittal requirement. To assert a claim of force majeure, you must meet the requirements outlined in 40 CFR 63.9(k)(2)(i) through (v).

[40 CFR 63.9(k)(2), Subpart A]

~~72.~~71. NESHAP Subpart A. The Permittee shall comply with the applicable requirements of 40 CFR 63 Subpart A in accordance with the provisions for applicability of Subpart A in:

[18 AAC 50.040(c)(1); 18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.1- through 63.15, Subpart A]

~~72.1~~71.1 Table 8 to Subpart ZZZZ for EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22 and MG-27 through MG-29, as applicable;

[40 CFR 63.6665 & Table 8, Subpart ZZZZ]

~~72.2~~71.2 Table 8 to Subpart JJJJJJ for EU ID MH-5, as applicable.

[40 CFR 63.11235 & Table 8, Subpart JJJJJJ]

Subpart A Requirements for Non-Emergency Engines

~~73.~~72. **NESHAP Subpart A Performance Testing Requirements**. For EU IDs MG-1 through MG-6, MG-17, and MG-18, the Permittee shall comply with the performance testing requirements of 40 CFR 63 Subpart A as follows:

[18 AAC 50.040(c)(1); 18 AAC 50.040(j); 18 AAC 50.326(j)]
[40 CFR 71.6(a)(3)]
[40 CFR 63.7– through 63.10, Subpart A]
[40 CFR 63.6645(a), 63.6665 & Table 8, Subpart ZZZZ]

~~73.1~~72.1 **Notification**.

a. The Permittee shall notify the Administrator in writing of the intent to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin. Notification under this condition satisfies the 10-day notification requirement of Condition 110.

b. In the event the owner or operator is unable to conduct the performance test on the date specified in the notification of Condition 73.1a due to unforeseeable circumstances, the Permittee shall notify the Administrator as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled.

[40 CFR 63.7(b)(1) & (2), Subpart A]

~~73.2~~72.2 **Test Plans.** When conducting a performance test, develop a site-specific test plan for submittal to the Department as required under Condition 109. Upon request, also submit the plan to the Administrator for approval, in accordance with the requirements of 40 CFR 63.7(c)(1) – (4).

[40 CFR 63.7(c), Subpart A]

~~73.3~~72.3 **Alternative Methods.** Performance testing may be conducted using an alternative method approved by the Administrator in accordance with 40 CFR 63.8(f)(4)(i)-(iv).

[40 CFR 63.8(f)(4), Subpart A]

~~73.4~~72.4 **Performance Test Reports.** The Permittee shall report the results of any performance test under 40 CFR 63.7 to the Department before the close of business on the 60th day following completion of the performance test, unless specified otherwise in a relevant standard. The results of the performance test shall be submitted as part of the notification of compliance status required under 40 CFR 63.9(h).

[40 CFR 63.9(h)(2), 63.10(d)(2), Subpart A]

NESHAP Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines (RICE)

~~74.~~73. **NESHAP Subpart ZZZZ Applicability.** For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, and MG-27 through MG-29 the Permittee shall comply with all applicable requirements of NESHAP Subpart ZZZZ for stationary RICE located at an area source of HAP emissions.

[18 AAC 50.040(c)(23), (j)(4) & 50.326(j)]

[40 CFR 71.6(a)(1)]
[40 CFR 63.6585, 63.6590, & 63.6590(a), Subpart ZZZZ]

~~75.~~74. For EU IDs MG-27 through MG-29, the Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII, as provided at Conditions 66 through 69. No further requirements apply for such engines under this part.

[40 CFR 63.6590(c)(1), Subpart ZZZZ]

~~76.~~75. **NESHAP Subpart ZZZZ Requirements.** For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and MG-22, the Permittee shall comply with the following requirements, as applicable:

NESHAP Subpart ZZZZ General Monitoring, Operation, and Maintenance Requirements

~~76.1~~75.1 **Good Air Pollution Control Practices.** At all times, operate and maintain EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and 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-9, MG-11, MG-17 through MG-20, and MG-22.

[40 CFR 63.6605(b), Subpart ZZZZ]

~~76.2~~75.2 For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and 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 CFR 63.6625(e), and Table 6 (Item 9) of Subpart ZZZZ]

~~76.3~~75.3 **Startup and Idle Time.** For EU MG-1 through MG-9, MG-11, MG-17 through MG-20, and 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 CFR 63.6625(h), Subpart ZZZZ]

~~76.4~~75.4 **Operating Time Limits.** Comply with the following operating time limits for EU IDs MG-11, MG-19, MG-20, and MG-22:

a. Any operation of EU IDs MG-11, MG-19, MG-20, and MG-22, for purposes other than emergency operation, maintenance and testing as described in Condition 76.4c, and operation in non-emergency situations for up to 50 hours per calendar year, as allowed in Condition 76.4d, is prohibited.

b. There is no time limit on the use of EU IDs MG-11, MG-19, MG-20, and MG-22, in emergency situations.

c. EU IDs MG-11, MG-19, MG-20, and 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-19, MG-20, and 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 76.4c. 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 CFR 63.6640(f), Subpart ZZZZ]

e. Monitor the operating time of MG-11, MG-19, MG-20, and MG-22, using a non-resettable hour meter.

[40 CFR 63.6625(f), Subpart ZZZZ]

NESHAP Subpart ZZZZ Emissions Management Practices

~~76.5~~75.5 For EU IDs MG-11, MG-19, MG-20, and MG-22, comply with the following, except as allowed by Condition 76.6:

a. Change the oil and filter every 500 hours of operation or annually, whichever comes first[21];

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 CFR 63.6603(a) and Table 2d (Item 4) of Subpart ZZZZ]

[21] The Permittee may use an oil analysis program as described in 40 CFR 63.6625(i) to extend the specified oil change requirement in Condition 76.5a. [ref. 40 CFR 63, Subpart ZZZZ, Table 2d, footnote 1]

~~76.6~~75.6 If any of EU IDs MG-11, MG-19, MG-20, and 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 76.5, 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 76.5 should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated.

[40 CFR 63, Footnote 2 to Table 2d, Subpart ZZZZ]

~~76.7~~75.7 For EU IDs MG-1 through MG-9, MG-17, and MG-18, comply with the following:

a. Change the oil and filter every 1,000 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 CFR 63.6603(a) & (b) and Table 2d (Item 1) of Subpart ZZZZ]

NESHAP Subpart ZZZZ Reporting

~~77.~~**76.** **Reporting**. For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and MG-22, the Permittee shall report as follows:

~~77.1~~76.1 Include in the operating report required by Condition 118 a report of Subpart ZZZZ deviations as defined in 40 CFR 63.6675 and of each instance in which an applicable requirement in 40 CFR 63, Subpart A (Table 8 of Subpart ZZZZ) was not met.

[40 CFR 63.6640(b) & (e), Subpart ZZZZ]

~~77.2~~76.2 Notify the Department in accordance with Condition 117 if any of the requirements in Conditions 76 through 78 were not met.

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

NESHAP Subpart ZZZZ Recordkeeping

~~78.~~**77.** **Recordkeeping**. For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and MG-22, keep the following records:

[18 AAC 50.040(c)(23) & (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]

[22] The Permittee may use an oil analysis program as described in 40 CFR 63.6625(i) to extend the specified oil change requirement in Condition 76.7a. [ref. 40 CFR 63, Subpart ZZZZ, Table 2d, footnote 1]

~~78.1~~77.1 Records of maintenance conducted on each of EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and 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 76.2b. 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 CFR 63.6655(e), Subpart ZZZZ]

~~78.2~~77.2 Records of the hours of operation for each of EU IDs MG-11, MG-19, MG-20, and 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 CFR 63.6655(f), Subpart ZZZZ]

~~78.3~~77.3 For EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and MG-22, keep applicable records described in 40 CFR 63.6655.

[40 CFR 63.6655(a), & (d~~) -~~() through (f), Subpart ZZZZ]

~~78.4~~77.4 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 CFR Part 63 applicable requirements.

[40 CFR 63.6660, 63.6665 & Table 8, Subpart ZZZZ]
[40 CFR 63.10(b)(1), Subpart A]

NESHAP Subpart JJJJJJ – Industrial Boilers at Area Sources

~~79.~~**78.** **NESHAP Subpart JJJJJJ Applicability.** For EU ID MH-5, the Permittee shall comply with all applicable requirements for existing[23] industrial boilers that are located at, or are part of, an area source of HAP emissions.

[18 AAC 50.040(c)(39), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]
[40 CFR 63.11193, 63.11194(a) & (b), Subpart JJJJJJ]

~~79.1~~78.1 At all times the Permittee shall operate and maintain EU ID MH-5, 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

[23] An affected source is an *existing source* if construction or reconstruction commenced on or before June 4, 2010.

maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.11205(a), Subpart JJJJJJ]

~~80.~~79. **NESHAP Subpart JJJJJJ Compliance Dates.** For EU ID MH-5, the Permittee shall demonstrate initial compliance with the following applicable requirements immediately after the reclassification becomes effective, as specified in Condition 70.1a:

~~80.1~~79.1 You must conduct an initial tune-up according to Conditions 81.1a through 81.1f.

[40 CFR 63.11214(b) & Table 2 (item 12), Subpart JJJJJJ]

~~81.~~80. **NESHAP Subpart JJJJJJ Management Practices.** For EU ID MH-5, the Permittee shall comply with the following management practices at all times.

[18 AAC 50.040(c)(39), (j)(4) & 50.326(j)]
[40 CFR 71.6(a)(1)]

~~81.1~~80.1 You must conduct a tune-up of the boiler every 5 years as specified in Conditions 81.1a through 81.1f and keep records as required in 40 CFR 63.11225(c) to demonstrate continuous compliance. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary.

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.

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide 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.

f. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

[40 CFR 63.11223(a), (b)(1) —through (5), (7), & (e), Subpart JJJJJJ]

~~81.2~~80.2 You may delay the burner inspection specified in Condition 81.1a and inspection of the system controlling the air-to-fuel ratio specified in 81.1c until the next scheduled unit shutdown, but you must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

[40 CFR 63.11223(e), Subpart JJJJJJ]

~~82.~~**81. NESHAP Subpart JJJJJJ Notification, Reporting, and Recordkeeping.** For EU ID MH-5, the Permittee shall comply with the following:

~~82.1~~81.1 You must submit all of the notifications in 40 CFR 63.9 that apply to you by the dates specified in those sections except as specified in Condition 82.1a.

a. An Initial Notification must be submitted within 120 days after the source becomes subject to NESHAP Subpart JJJJJJ.

~~82.2~~81.2 You must submit the Notification of Compliance Status no later than 120 days after the source becomes subject to NESHAP Subpart JJJJJJ.

a. The Notification of Compliance Status must include the certification of compliance in 82.2a(i) and be signed by a responsible official

(i) "This facility complies with the requirements in 40 CFR 63.11214 to conduct an initial tune-up of the boiler."

(ii) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.

[40 CFR 63.11225(a)(1), (2), & (4), Subpart JJJJJJ]

~~82.3~~81.3 You must prepare, by March 1 every 5 years, and submit to the delegated authority upon request, a 5-year compliance certification report for the previous 5 calendar years containing the information specified in Conditions 82.3a through 82.3c. You must submit the report by March 15 if you had any instance described by Condition 82.3c.

a. Company name and address.

b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of NESHAP Subpart JJJJJJ. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."

c. If EU ID MH-5 experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

[40 CFR 63.11225(b)(1) through (3), Subpart JJJJJJ]

~~82.4~~81.4 You must maintain the following records:

a. As required in 40 CFR 63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with NESHAP Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

b. You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11223 as specified in Condition 82.4b(i).

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

[40 CFR 63.11225(c)(1) –through (2)(i), Subpart JJJJJJ]

c. Maintain on-site and submit, if requested by the Administrator, a report containing the information in 40 CFR 63.11223(6)(i) through (iii).

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

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

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

[40 CFR 63.11223(b)(6), Subpart JJJJJJ]

d. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

e. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Condition 79.1, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.11225(c)(4) & (5), Subpart JJJJJJ]

~~82.5~~81.5 Your records must be in a form suitable and readily available for expeditious review. You must keep each record for 5 years following the date of each recorded action. You must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. You may keep the records off site for the remaining 3 years.

~~82.6~~81.6 If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within

subpart JJJJJJ or in the boiler switching out of subpart JJJJJJ due to a change to 100 percent natural gas, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the change. The notification must identify the information in 40 CFR 63.11225(g)(1) and (2).

[40 CFR 63.11225(d) & (g) Subpart JJJJJJ]

40 CFR Part 61 NESHAP

Subpart A – General Provisions & Subpart M

~~83.~~82. **Asbestos NESHAP.** The Permittee shall comply with the applicable requirements set forth in 40 CFR 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 CFR 61, Subpart A and Appendix A of Subpart M.

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

40 CFR Part 82 Protection of Stratospheric Ozone

~~84.~~83. **Subpart F – Recycling and Emissions Reduction**. The Permittee shall comply with the standards for recycling and emission reduction of refrigerants set forth in 40 CFR 82 Protection of Stratospheric Ozone ~~–~~ Subpart F.

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

~~85.~~84. **Subpart G – Significant New Alternatives.** The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.174 (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).

[18 AAC 50.040(d), & 50.326(j)]
[40 CFR 82.174 (b) ~~–~~through (d), Subpart G]

~~86.~~85. **Subpart H – Halon Emissions Reduction.** The Permittee shall comply with the applicable prohibitions set out in 40 CFR 82.270 (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).

[18 AAC 50.040(d), & 50.326(j)]
[40 CFR 82.270(b) ~~–~~through (f), Subpart H]

General NSPS and NESHAP Requirements

~~87.~~86. **NESHAP Applicability Determinations**. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories (40 CFR 63) in accordance with the procedures described in 40 CFR 63.1(b).

~~87.1~~86.1 If an owner or operator of a stationary source that is in the relevant source category determines that the source is not subject to a relevant standard or other requirement established under 40 CFR 63, the owner or operator must keep a record as specified in 40 CFR 63.10(b)(3).

~~87.2~~86.2 If a source becomes affected by an applicable subpart of 40 CFR 63, the owner or operator shall comply with such standard by the compliance date established by the Administrator in the applicable subpart, in accordance with 40 CFR 63.6(c).

~~87.3~~86.3 After the effective date of any relevant standard promulgated by the Administrator under this part, an owner or operator who constructs a new affected source that is not major-emitting or reconstructs an affected source that is not major-emitting that is subject to such standard, or reconstructs a source such that the source becomes an affected source subject to the standard, must notify the Administrator and the Department of the intended construction or reconstruction. The notification must be submitted in accordance with the procedures in 40 CFR 63.9(b).

[18 AAC 50.040(c)(1), 50.040(j), & 50.326(j)]
[40 CFR 71.6(a)(3)(ii)]
[40 CFR 63.1(b), 63.5(b)(4), 63.6(c)(1), & 63.10(b)(3), Subpart A]

~~88.~~**87. NSPS and NESHAP Reports.** The Permittee shall comply with the following:

~~88.1~~87.1 **Reports**: Except for previously submitted reports and federal reports and notices submitted through EPA's Central Data Exchange (CDX) and Compliance and Emissions Data Reporting Interface (CEDRI) online reporting system, attach to the operating report required by Condition 118 for the period covered by the report, a copy of any NSPS and NESHAP reports submitted to the U.S. Environmental Protection Agency (EPA) Region 10. For reports previously submitted to ADEC or submitted through CDX/CEDRI, state in the operating report the date and a brief description of each of the reports submitted during the reporting period; and

~~88.2~~87.2 **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 CFR 60.13, 63.10(d) & (f), & 71.6(c)(6)]

Section 6. General Conditions

Standard Terms and Conditions

~~89.~~88. 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)]

~~90.~~89. 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)]

~~91.~~90. 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)]

~~92.~~91. **Administration Fees.** The Permittee shall pay to the Department all assessed permit administration fees. Administration fee rates are set out in 18 AAC 50.400-403.

[18 AAC 50.326(j)(1), 50.400, 50.403, & 50.403]
[AS 37.10.052(b), 11/04 & AS 46.14.240, 8/1/07]

~~93.~~92. **Assessable Emissions.** For each period from July 1 through the following June 30, the Permittee shall pay to the Department an annual emission fee based on the stationary source's assessable emissions, as determined by the Department under 18 AAC 50.410. The Department will assess fees per ton of each air pollutant that the stationary source emits or has the potential to emit in quantities 10 tons per year or greater. The quantity for which fees will be assessed is the lesser of the stationary source's

~~93.1~~92.1 potential to emit of 4,387.88 tpy; or

~~93.2~~92.2 projected annual rate of emissions, in tpy, based upon actual annual emissions for the most recent calendar year, or another 12-month period approved in writing by the Department, when demonstrated by credible evidence of actual emissions, based upon the most representative information available from one or more of the following methods:

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

b. material balance calculations;

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

d. other methods and calculations approved by the Department, including appropriate vendor-provided emission factors when sufficient documentation is provided**.**

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

~~94.~~93. **Assessable Emission Estimates.** The Permittee shall comply as follows:

~~94.1~~93.1 No later than March 31 of each year, the Permittee may submit an estimate of the stationary source's assessable emissions as determined in Condition 93.2. Submit actual emissions estimates in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-i-submission-instructions/..

~~94.2~~93.2 The Permittee shall include with the assessable emissions report all of the assumptions and calculations used to estimate the assessable emissions in sufficient detail so the Department can verify the estimates.

~~94.3~~93.3 If no estimate is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit set out in Condition 93.1.

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

~~95.~~94. **Good Air Pollution Control Practice.**

~~95.1~~94.1 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.

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

~~95.2~~94.2 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 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 9932-AC005 Rev. 2, 7/16/03]

~~95.3~~94.3 The Permittee shall perform regular maintenance on emissions units (PRC-1a through PRC-11a and MXG-101a) 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

~~95.4~~94.4 keep a copy of either the manufacturer's or the operator's maintenance procedures

[Condition 2, Minor Permit AQ0290MSS06 Rev 1, 5/5/09]

~~95.5~~94.5 The Permittee shall maintain EU ID MD-9 according to manufacturer's or operator's maintenance procedures.

[Condition 2, Minor Permit 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

~~96.~~**95.** **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)]

~~97.~~**96.** **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.

~~97.1~~96.1 The Permittee shall comply with the Dust Control (PM Control) Plan prepared August 1999 for the stationary source.

~~97.2~~96.2 The Permittee shall comply with the requirements of Condition 24.

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

~~97.3~~96.3 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 Implementation Plan (SIP), also record a statement describing why the Permittee finds the precautions to be reasonable. Reasonable precautions, as listed in the SIP, 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.

~~97.4~~96.4 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 CFR 60, Appendix A, Reference Method 22.

~~97.5~~96.5 Upon discovering that particulate matter emissions are leaving the property, take corrective actions to prevent the emissions from leaving the property.

~~97.6~~96.6 Keep contemporaneous records of all surveys performed and corrective actions taken to prevent particulate matter emissions from leaving the Red Dog Mine Ambient Boundary.

~~97.7~~96.7 Provide a summary of the records required by this condition with the Operating Report required by Condition 118.

[Condition 32, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

~~97.8~~96.8 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 AQ0290MSS06 Rev. 1, 5/5/09]

~~97.9~~96.9 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 97.8 or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

~~97.10~~96.10 The Permittee shall report according to Condition 99.

~~98.~~**97. 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)]

~~99.~~**98. 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 CFR 71.6(a)(3)]

~~99.1~~98.1 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 102.4.

[Condition 35.2, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

~~99.2~~98.2 **Monitoring**. The Permittee shall monitor as follows:

a. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 99.

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

(i) 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 99; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 99.

~~99.3~~98.3 **Recordkeeping**. The Permittee shall keep records of

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

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

c. a summary of any investigation, including reasons the Permittee does or does not believe the emissions have caused a violation of Condition 99; and

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

~~99.4~~98.4 **Reporting.** The Permittee shall report as follows:

a. With each operating report under Condition 118, the Permittee shall include a brief summary report which must include the following for the period covered by the report:

(i) the number of complaints received;

(ii) the number of times the Permittee or the Department found corrective action necessary;

(iii) the number of times action was taken on a complaint within 24 hours; and

(iv) the status of corrective actions the Permittee or Department found necessary that were not taken within 24 hours.

b. The Permittee shall notify the Department of a complaint that is attributable to emissions from the stationary source within 24 hours after receiving the

complaint, unless the Permittee has initiated corrective action within 24 hours of receiving the complaint.

c. If emissions present a potential threat to human health or safety, the Permittee shall report any such emissions according to Condition 117.

~~100.~~99. **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]

~~101.~~100. **Technology-Based Emission Standard.** If an unavoidable emergency, malfunction (as defined in 18 AAC 50.235(d)), or non-routine repair (as defined in 18 AAC 50.990(64)), causes emissions in excess of a technology-based emission standard[24] listed in Conditions 23.1, 25, 60, 62, and 67 the Permittee shall

~~101.1~~100.1 take all reasonable steps to minimize levels of emissions that exceed the standard.

~~101.2~~100.2 report in accordance with Condition 117; the report must include information on the steps taken to mitigate emissions and any corrective measures taken.

[18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 CFR 71.6(c)(6)]

Open Burning Requirements

~~102.~~101. **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 CFR 71.6(a)(3)]

~~102.1~~101.1 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 9932-AC005 Rev. 2, 7/16/03]

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

~~102.2~~101.2 **General Requirements.** Except when conducting open burning under Condition 102.8 or 102.9, a person conducting open burning shall comply with the limitations of Conditions 102.3 through 102.7 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 119.

[Conditions 37.3 & 37.4, Construction Permit 9932-AC005 Rev. 1, 6/10/03]

~~102.3~~101.3 **Black Smoke Prohibited.** Except for firefighter training conducted under Condition 102.9, 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 102.10.

[18 AAC 50.065(b)]

~~102.4~~101.4 **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 9932-AC005 Rev. 2, 7/16/03]

~~102.5~~101.5 **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)]

~~102.6~~101.6 **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 9932-AC005 Rev. 1, 7/16/03]

~~102.7~~101.7 **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)]

~~102.8~~101.8 **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 102.10 of this section.

[18 AAC 50.065(g)]

~~102.9~~101.9 **Firefighter Training - Fuel Burning.** 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 102.10 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 102.11.

[18 AAC 50.065(i)]
[Condition 34, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

~~102.10~~101.10 **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 9932-AC005 Rev. 2, 7/16/03]

~~102.11~~101.11 **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 102.11b.

[18 AAC 50.065(k) & 50.346(b)]
[Conditions 34.2 & 34.3, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

Section 7. General Source Testing and Monitoring Requirements

~~103.~~**102.** **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)]

~~104.~~**103.** **Operating Conditions.** Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b)]

~~104.1~~103.1 at a point or points that characterize the actual discharge into the ambient air; and

~~104.2~~103.2 at the maximum rated burning or operating capacity of the emissions unit or another rate determined by the Department to characterize the actual discharge into the ambient air.

~~105.~~**104.** **Reference Test Methods.** The Permittee shall use the following test methods when conducting source testing for compliance with this permit:

~~105.1~~104.1 source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 CFR 60.

[18 AAC 50.220(c)(1)(A) & 50.040(a)]
[40 CFR 60]

~~105.2~~104.2 source testing for compliance with requirements adopted by reference in 18 AAC 50.040(b) must be conducted in accordance with the methods and procedures specified in 40 CFR 61.

[18 AAC 50.040(b) & 50.220(c)(1)(B)]
[40 CFR 61]

~~105.3~~104.3 source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 CFR 63.

[18 AAC 50.040(c) & 50.220(c)(1)(C)]
[40 CFR 63]

~~105.4~~104.4 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)]

~~105.5~~104.5 source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals and acid gases must be conducted in accordance with the methods and procedures specified in 40 CFR 60, Appendix A.

[18 AAC 50.040(a)(3) & 50.220(c)(1)(E)]
[40 CFR 60, Appendix A]

~~105.6~~104.6 source testing for emissions of $PM_{2.5}$ and PM_{10} must be conducted in accordance with the procedures specified in 40 CFR 51, Appendix M, Methods 201 or 201A and 202.

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

~~105.7~~104.7 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".

[Condition 39.6, Construction Permit 9932-AC005 Rev. 2, 7/16/03]

~~105.8~~104.8 source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 CFR 63 Appendix A, Method 301.

[18 AAC 50.040(c)(32) & 50.220(c)(2)]
[40 CFR 63, Appendix A, Method 301]

~~106.~~**105.** **Excess Air Requirements.** To determine compliance with this permit, standard exhaust gas volumes must include only the volume of gases formed from the theoretical combustion of the fuel, plus the excess air volume normal for the specific emissions unit type, corrected to standard conditions (dry gas at 68° F and an absolute pressure of 760 millimeters of mercury).

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

~~107.~~**106.** **Test Exemption.** The Permittee is not required to comply with Conditions 109, 110 and 111 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.4).

[18 AAC 50.345(a)]

~~108.~~**107.** **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)]

~~109.~~**108.** **Test Plans.** Except as provided in Condition 107, before conducting any source tests, the Permittee shall submit a plan to the Department. The plan must include the methods and procedures to be used for sampling, testing and quality assurance and must specify how the emissions unit will operate during the test and how the Permittee will document that operation. The Permittee shall submit a complete plan within 60 days after receiving a request under Condition 103 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)]

~~110.~~**109.** **Test Notification.** Except as provided in Condition 107, 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)]

~~111.~~110. **Test Reports.** Except as provided in Condition 107, within 60 days after completing a source test, the Permittee shall submit one certified copy 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 114. 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)]

~~112.~~111. **Particulate Matter Calculations.** In source testing for compliance with the particulate matter standards in Conditions 8, 25.4, 26.2, 32.1a, 60.1a and 40.2, the three-hour average is determined using the average of three one-hour test runs.

[18 AAC 50.220(f)]

Section 8. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

~~113.~~**112.** The Permittee shall keep all records required by this permit for at least five years after the date of collection, including:

[18 AAC 50.040(a)(1) & 50.326(j)]
[40 CFR 60.7(f), Subpart A, & 71.6(a)(3)(ii)(B)]

~~113.1~~112.1 Copies of all reports and certifications submitted pursuant to this section of the permit; and

~~113.2~~112.2 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

~~114.~~**113.** **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.

~~114.1~~113.1 The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if the person providing the electronic signature

a. uses a security procedure, as defined in AS 09.80.190, that the Department has approved; and

b. accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.345(a) & (j), 50.205, & 50.326(j)]

~~115.~~114. **Submittals.** Unless otherwise directed by the Department or this permit, the Permittee shall submit to the Department one certified copy of reports, compliance certifications, and/or other submittals required by this permit. The Permittee may submit the documents electronically or by hard copy.

~~115.1~~114.1 Submit the certified copy of reports, compliance certifications, and/or other submittals in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-condition-xvii-submission-instructions/.

[18 AAC 50.326(j)(3) & 50.346(b)(10)]

~~116.~~115. **Information Requests.** The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the Federal Administrator.

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]
[40 CFR 71.5(a)(2) & 71.6(a)(3)]

~~117.~~116. **Excess Emissions and Permit Deviation Reports.** The Permittee shall report excess emissions and permit deviations as follows:

~~117.1~~116.1 **Excess Emissions Reporting.** Except as provided in Condition 99, the Permittee shall report all emissions or operations that exceed emissions standards or limits of this permit as follows:

a. In accordance with 18 AAC 50.240(c), as soon as possible, report

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

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

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

c. If a continuous or recurring excess emissions is not corrected within 48 hours of discovery, report within 72 hours of discovery unless the Department provides written permission to report under Condition 117.1d.

d. Report all other excess emissions not described in Conditions 117.1a, 117.1b, and 117.1c within 30 days after the end of the month during which the excess emissions occurred or as part of the next routine operating report in Condition 118 for excess emissions that occurred during the period covered by the report, whichever is sooner.

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

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

~~117.2~~116.2 **Permit Deviations Reporting.** For permit deviations that are not "excess emissions," as defined under 18 AAC 50.990:

a. Report according to the required deadline for failure to monitor, as specified in other applicable conditions of this permit (Conditions 5.3b and 14.2b)

b. Report all other permit deviations within 30 days after the end of the month during which the deviation occurred or as part of the next routine operating report in Condition 118 for permit deviations that occurred during the period covered by the report, whichever is sooner.

[18 AAC 50.326(j)(3) & 50.346(b)(2)]

~~117.3~~116.3 **Notification Form.** When reporting either excess emissions or permit deviations, the Permittee shall report using either the Department's online form, which can be found at the Division of Air Quality's Air Online Services (AOS) system webpage http://dec.alaska.gov/applications/air/airtoolsweb using the Permittee Portal option, 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. Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage found at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

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

~~118.~~**117.** **Operating Reports.** During the life of this permit[25], the Permittee shall submit to the Department an operating report in accordance with Conditions 114 and 115 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.

~~118.1~~117.1 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.

~~118.2~~117.2 When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 118.1, the Permittee shall identify:

a. the date of the excess emissions or permit deviation;

b. the equipment involved;

c. the permit condition affected;

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

[25] *Life of this permit* is defined as the permit effective dates, including any periods of reporting obligations that extend beyond the permit effective dates. For example, if a permit expires prior to the end of a calendar year, there is still a reporting obligation to provide operating reports for the periods when the permit was in effect.

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

~~118.3~~117.3 When excess emissions or permit deviation reports have already been reported under Condition 117 during the period covered by the operating report, the Permittee shall either

a. include a copy of those excess emissions or permit deviation reports with the operating report; or

b. cite the date(s) of those reports.

~~118.4~~117.4 The operating report must include for the period covered by the report, a listing of emissions monitored under Condition 3.4e, which trigger additional testing or monitoring, whether or not the emissions monitored exceed an emission standard. The Permittee shall include in the report

a. the date of the emissions;

b. the equipment involved;

c. the permit condition affected; and

d. the monitoring result which triggered the additional monitoring.

~~118.5~~117.5 **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 CFR 71.6(a)(3)(iii)(A)]

~~119.~~**118.** **Annual Compliance Certification.** Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report[26].

~~119.1~~118.1 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;

~~119.2~~118.2 **Transition from expired to renewed permit.** For the first period of this renewed operating permit, also provide the previous permit's annual compliance

[26] See Condition 119.2 for clarification on the number of reports required.

certification report elements covering that partial period immediately preceding the effective date of this renewed permit

~~119.3~~118.3 In addition, submit a copy of the report directly to: US EPA Region 10, ATTN: Air Toxics and Enforcement Section, Mailstop: 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 CFR 71.6(c)(5)]

~~120.~~**119.** **Emission Inventory Reporting.** The Permittee shall submit to the Department reports of actual emissions, by emissions unit, of CO, NH_3, NO_X, PM_{10}, $PM_{2.5}$, SO_2, VOCs and lead (Pb) and lead compounds, as follows:

~~120.1~~119.1 **Annual inventory**. Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 250 tons per year (tpy) of NH_3, PM_{10}, $PM_{2.5}$, or VOCs; or

b. 2,500 tpy of CO, NO_X, or SO_2.

~~120.2~~119.2 **Triennial inventory**. Every third year by April 30, if the stationary source's potential to emit (except actual emissions for Pb) for the previous calendar year equals or exceeds:

a. For stationary sources located in Attainment and Unclassifiable Areas:

(i) 0.5 tpy of actual lead (Pb), or

(ii) 1,000 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_X, or VOCs.

b. For stationary sources located in Nonattainment Areas:

(i) 0.5 tpy of actual Pb; or

(ii) 1,000 tpy of CO or, when located in a CO nonattainment area, 100 tpy of CO; or

(iii) 100 tpy of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_x, or VOC; or as specified in Conditions 120.2b(iv) through 120.2b(viii);

(iv) 70 tpy of SO_2, NH_3, $PM_{2.5}$, NO_x, or VOC in $PM_{2.5}$ serious nonattainment areas; or

(v) 70 tpy of PM_{10} in PM_{10} serious nonattainment areas; or

(vi) 50 tpy of NO_x or VOC in O_3 serious nonattainment areas; or

(vii) 25 tpy of NO_x or VOC in O_3 severe nonattainment areas; or

(viii) 10 tpy of NO_x or VOC in O_3 extreme nonattainment areas.

~~120.3~~119.3 For reporting under Condition 120.2, the Permittee shall report the annual emissions and the required data elements under Condition 120.4 every third year for the previous calendar year as scheduled by the EPA.[27]

~~120.4~~119.4 For each emissions unit and the stationary source, include in the report the required data elements[28] contained within the form included in the Emission Inventory Instructions available at the Department's AOS system on the Point Source Emission Inventory webpage at http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory.

~~120.5~~119.5 Submit the report in accordance with the submission instructions on the Department's Standard Permit Conditions webpage at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-xv-and-xvi-submission-instructions/

[18 AAC 50.040(j)(4), 50.200, 50.326(j)(3), & 50.346(b)(8)]
[40 CFR 51.15, 51.30(a)(1) & (b)(1), and Appendix A to 40 CFR 51 Subpart A]

[27] The calendar years for which reports are required are based on the triennial reporting schedule in 40 CFR 51.30(b)(1), which requires states to report emissions data to the EPA for inventory years 2011, 2014, 2017, 2020, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2020 is due April 30, 2021, triennial emission inventory report for 2023 is due April 30, 2024, etc.).

[28] The required data elements to be reported to the EPA are outlined in 40 CFR 51.15 and Tables 2a and 2b to Appendix A of 40 CFR 51 Subpart A.

Section 9. Permit Changes and Renewal

~~121.~~**120.** **Permit Applications and Submittals.** The Permittee shall comply with the following requirements for submitting application information to the EPA, Region 10:

~~121.1~~120.1 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;

~~121.2~~120.2 the information shall be submitted to: Air Permits and Toxics Branch, US EPA Region 10, Mailstop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101;

~~121.3~~120.3 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

~~121.4~~120.4 the Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7) 50.326(a) & (j)(3), & 50.346(b)(7)]
[40 CFR 71.10(d)(1)]

~~122.~~**121.** **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 CFR 71.6(a)(8)]

~~123.~~**122.** **Off Permit Changes.** The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 CFR Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

~~123.1~~122.1 each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;

~~123.2~~122.2 provide contemporaneous written notice to the Administrator 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;

~~123.3~~122.3 the change shall not qualify for the shield under 40 CFR 71.6(f);

~~123.4~~122.4 the Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(12)]

~~124.~~123. **Operational Flexibility.** The Permittee may make CAA Section 502(b)(10)[29] 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):

~~124.1~~123.1 the Permittee shall provide the Administrator with a written notification no less than seven days in advance of the proposed change.

~~124.2~~123.2 for each such change, the notification required by Condition 124.1 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.

~~124.3~~123.3 the permit shield described in 40 CFR 71.6(f) shall not apply to any change made pursuant to Condition 124.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 CFR 71.6(a)(13)]

~~125.~~124. **Permit Renewal**. To renew this permit, the Permittee shall submit an application under 18 AAC 50.326 no sooner than July 28, 2023 and no later than July 28, 2024. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 CFR 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3) & 50.326(c) & (j)(2)]
[40 CFR 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

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

Section 10. Compliance Requirements

~~126.~~**125.** Compliance with permit terms and conditions is considered to be compliance with those requirements that are

~~126.1~~125.1 included and specifically identified in the permit; or

~~126.2~~125.2 determined in writing in the permit to be inapplicable.

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

~~127.~~**126.** The Permittee must comply with each permit term and condition.

~~127.1~~126.1 For applicable requirements with which the stationary source is in compliance, the Permittee shall continue to comply with such requirements

~~127.2~~126.2 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 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

~~128.~~**127.** 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)]

~~129.~~**128.** 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

~~129.1~~128.1 enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

~~129.2~~128.2 have access to and copy any records required by the permit;

~~129.3~~128.3 inspect any stationary source, equipment, practices, or operations regulated by or referenced in the permit; and

~~129.4~~128.4 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)]

~~130.~~**129.** For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.

[18 AAC 50.040(j) & 50.326(j)]
[40 CFR 71.6(c)(3) & 71.5(c)(8)(iii)(B)]

Section 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.

~~131.~~**130.** Nothing in this permit shall alter or affect the following:

~~131.1~~130.1 The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or

~~131.2~~130.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

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

~~132.~~**131.** Table E identifies the emissions units that are not subject to the specified requirements at the time of permit issuance. If any of the requirements listed in Table E 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 CFR 71.6(f)(1)(ii)]

Table E - Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
AP-16 and AP-18	40 CFR 63, Subpart DDDDD	In accordance with 40 CFR 63.7491(j), the EUs meet the definition of temporary boiler as defined in 40 CFR 63.7575.
MH-4 & MH-5	40 CFR 60, Subpart Dc – Standards for small industrial-commercial-institutional steam generating units	40 CFR 60, Subpart Dc is not applicable because MH-5 was constructed prior to June 9, 1989 and each heater in the MH-4 group is rated less than 10 MMBtu/hr.
MH-4	40 CFR 63, Subpart DDDDD	40 CFR 63, Subpart DDDDD is not applicable because the individual EUs in the MH-4 group either do not meet the definition of a boiler per 40 CFR 63.7575 or meet the hot water heater exemption provided in 40 CFR 63.7491(d).
MH-5	40 CFR 63.7490(a)(2), (b), (c), & (e); 63.7495(a), (c) & (f) through (i); 63.7500(c), (e), & (f); 63.7510(i) & (j); 63.7540(a)(1) through (9); 63.7545(f), & (h); 63.7555(a)(3) & (h), Tables 1, 2, and 11 through 13 to Subpart DDDDD, Items 2, 3, 5, and 6 of Table 3 to Subpart DDDDD.	The EU is an existing boiler located at a major source of HAP. The EU is rated at 2.5 MMBtu/hr and fires only diesel fuel. The EU does not meet the definition of electric utility steam generating unit and was constructed in 2005.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MH-5	40 CFR 63.7500(a)(2); 63.7505(c) through (e); 63.7510(a) through (d) & (f); 63.7515(a) through (c) & (e) through (i); 63.7520; 63.7521; 63.7522; 63.7525; 63.7530; 63.7533; 63.7535; 63.7540(a)(14) through (19), (c) & (d); 63.7541; 63.7545(d); 63.7550(c)(2) through (4); 63.7550(c)(5)(iv), (v), (vi), (vii), (viii), (ix), (x), (xii), (xv), (xvi), & (xviii); 63.7550(d)(3); 63.7550(e); 63.7550(h)(1) & (2); 63.7555(b) through (g); Tables 4 through 8 to Subpart DDDDD	The EU is not subject to any emission limits in Tables 1 or 2 or operating limits in Table 4 of NESHAP Subpart DDDDD. It is not subject to stack testing or fuel testing, and does not require CMS (CEMS, COMS, or CPMS).
MG-1 through MG-6, MG-17, MG-18	40 CFR 63.6620(f), Items 1 and 4 of Table 5, Item 11 of Table 6 to Subpart ZZZZ	The engines are equipped with an oxidation catalyst system.
MG-1 through MG-6, MG-17, MG-18	40 CFR 63.6625(a), Items 5 and 6 of Table 5, Item 3 of Table 6 to Subpart ZZZZ	The engines are not equipped with a CEMS.
MG-1 through MG-6, MG-17, MG-18	40 CFR 63.6630(d), Tables 1a and 1b, Item 2 of Table 4, Items 7 through 10 of Table 5, Items 4 through 8 of Table 6 to Subpart ZZZZ	The engines are not subject to the requirement to reduce formaldehyde emissions per Table 1a to Subpart ZZZZ of Part 63 because the engines were constructed prior to December 19, 2002.
MG-7, MG-8, and MG-9	40 CFR 63, Subpart ZZZZ	Per 40 CFR 63.6590(b)(3)(iii), the engines are exempt from NESHAP Subpart ZZZZ because they are each rated at more than 500 brake hp and are located at a major source of HAP that is not connected to a power grid and does not provide power to any other entity.
MG-11, MG-19, MG-20, MG-22	40 CFR 63.6612, 63.6615, 63.6620, 63.6645(a), (g), (h), and Tables 3 and 4 to Subpart ZZZZ	The engines are not subject to numerical emission standards or source test requirements.
MG-11, MG-19, MG-20, MG-22	40 CFR 63.6625(a), 63.6625(b), and 63.6635, 63.6655(b)	The engines are not equipped with CEMS or CPMS.
MG-11, MG-19, MG-20, MG-22	40 CFR 63.6650(a) through (e)	No reports are required under Table 7 to Subpart ZZZZ.
MI-2 and MI-3	18 AAC 50.050(b)	EU IDs MI-2 and MI-3 are not subject to a limit per Table 4 provided in 18 AAC 50.050(b) because each of the units is not rated at 1,000 pound per hour or more and also does not incinerate sludge from a municipal wastewater treatment plant that serves 10,000 or more persons.
MI-2 and MI-3	40 CFR 60, Subpart O	Per 40 CFR 60.150(a), MI-2 and MI-3 do not combust waste containing more than 10 percent sewage sludge (dry basis) or charge more than 1,000 kg (2,205 lb) per day municipal sewage sludge (dry basis).
MI-2 and MI-3	40 CFR 62, Subpart III	Per 40 CFR 62.14525(c)(2), EU IDs MI-2 and MI-3 are exempt because each unit incinerates more than 30 percent municipal solid waste or refuse-derived fuel and has an operating capacity less than 35 tpd.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MI-2 and MI-3	40 CFR 62, Subpart LLL	Per 40 CFR 62.15860, EU IDs MI-2 and MI-3 are not located at a wastewater treatment facility designed to treat domestic sewage sludge. • "Location" and "domestic" are not defined in 40 CFR 62 Subpart A, 40 CFR 62 Subpart LLL, or in 40 CFR 60 Subpart A. (Per 40 CFR 62.01, the definitions in 40 CFR 60 are applicable to 40 CFR 62.) • "Location" and "domestic" are not defined in the Clean Air Act. • "Location" is defined at 40 CFR 89.2 as "any single site at a building, structure, facility, or installation." Note that this definition of "location" is in the context of determining if an engine is a nonroad engine. The U.S. Environmental Protection Agency (EPA) regulations do not explicitly extend this definition of "location" to emissions units other than nonroad engines. • EPA guidance addressing the use of "location" in the context of waste water treatment plants and sewage sludge incinerators has not been found. • Given the lack of any other definition or guidance, a reasonable approach is to apply the "location" definition from 40 CFR 89.2 to the Mine wastewater treatment plant and incinerators. • The Mine waste water treatment plant and EU IDs MI-2 and MI-3 are not at a single site within the Mine. Instead, the distance between waste water treatment plant and the two incinerators is approximately 9,700 feet. The tailings pond is located between the wastewater treatment plant and the incinerators. • Given the definition of location being used for this analysis, the Mine wastewater treatment plant and the incinerators are not at the same location based on the distance between the equipment. • "Domestic septage" is defined by EPA at 40 CFR 503.9 as is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant. • Based on the definition of domestic septage provided above, the wastewater treatment system at the Mine handles industrial wastewater, not domestic septage.

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
MC-1	40 CFR 60, Subpart OOO	The concrete batch plant is exempt per 40 CFR 60.670(a)(2) because no crushing or grinding occurs.
MF-1 and MF-6	40 CFR 60, Subpart LL	EU IDs MF-1 and MF-6 are exempt because they are not listed as affected facilities under 40 CFR 60.380(a).
MD-2 and MD-3	40 CFR 60, Subpart LL, subsections 60.382(a)(2)	The 7 percent opacity limit under 40 CFR 60.382(a)(2) is not applicable to wet scrubbers.
MD-11 through MD-13	40 CFR 60, Subpart OOO	Per 40 CFR 60.670(a)(2), the lime slaker is not subject to NSPS Subpart OOO because limestone is not crushed or ground at the Red Dog Mine.
PRC-1	40 CFR 60, Subpart OOO	A feeder is not listed as an affected facility under 40 CFR 60.670(a)(1) and dumping into a feed hopper is exempt per 40 CFR 60.672(d).
PRC-1 through PRC-11	40 CFR 60, Subpart LL	The portable rock crushers do not process metallic minerals and are therefore exempt per 40 CFR 60.380(a).

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 from Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under additional information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form" https://www3.epa.gov/ttnemc01/methods/webinar8.pdf.

- Source Name: full company name, parent company or division or subsidiary information, if necessary.
- Address: street (not mailing or home office) address of facility where visible emissions observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Stationary Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g. charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Plume is present, note in Comments section…"attached" if water droplet plume forms prior to exiting stack, or "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 color and cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.
- Wet Bulb Temperature: can be measured using a sling psychrometer
- RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
- Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
- Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
- Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
- Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.
- Observer's Signature, Date: sign and date after performing VE observation.
- 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	
Emission Unit Location			
City	State	Zip	
Phone # (Key Contact)		Stationary Source ID Number	
Process Equipment		Operating Mode	
Control Equipment		Operating Mode	
Describe Emission Point/Location			
Height above ground level	Height relative to observer	Clinometer Reading	
Distance From Observer Start End		Direction From Observer Start End	
Describe Emissions & Color Start		End	
Visible Water Vapor Present? No Yes	If yes, determine approximate distance from the stack exit to where the plume was read		
Point in Plume at Which Opacity Was Determined			
Describe Plume Background Start End		Background Color Start End	
Sky Conditions: Start		End	
Wind Speed Start End		Wind Direction From Start End	
Ambient Temperature		Wet Bulb Temp	RH percent
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From 3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks			
I have received a copy of these opacity observations			
Print Name:			
Signature:			
Title		Date	

Observation Date | Start Time | End Time

Min \ Sec	0	15	30	45	Comments
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Range of Opacity
Minimum Maximum

Print Observer's Name
Observer's Signature Date
Observer's Affiliation:
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		Comments
	Start	End		Sum	Average	

Section 13. SO_2 Material Balance Calculation

If a fuel shipment contains more than 0.75 percent sulfur by weight, calculate the three-hour exhaust concentration of SO_2 using the following equations:

A. = 31,200 x[**wt%S_{fuel}**] = 31,200 x _____ = _____

B. = 0.148 x[**wt%S_{fuel}**] = 0.148 x _____ = _____

C. = 0.396 x[**wt%C_{fuel}**] = 0.396 x _____ = _____

D. = 0.933 x[**wt%H_{fuel}**] = 0.933 x _____ = _____

E. = B + C + D = _____ + _____ + _____ = _____

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

G. =[**vol%$_{dry}O_{2,\ exhaust}$**] ÷ F = _____ ÷ _____ = _____

H. = 1 + G = 1 + _____ = _____

I. = E x H = _____ x _____ = _____

SO_2 concentration = A ÷ I = _____ ÷ _____ = _____ ppm

The **wt%S_{fuel}**, **wt%C_{fuel}**, and **wt%H_{fuel}** are equal to the weight percents of sulfur, carbon, and hydrogen in the fuel. These percentages should total 100%.

The fuel weight percent of sulfur (**wt%S_{fuel}**) is obtained pursuant to Condition 19.4. The fuel weight percents of carbon and hydrogen (**wt%C_{fuel},** and **wt%H_{fuel}**) are obtained from the fuel refiner.

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

Enter all of the data in percentages without dividing the percentages by 100. For example, if **wt%S_{fuel}** = 1.0%, then enter 1.0 into the equations not 0.01 and if **vol%dry$O_{2,\ exhaust}$** = 3.00%, then enter 3.00, not 0.03.

[18 AAC 50.346(c)]

Section 14. Notification Form

Red Dog Mine	AQ0290TVP03
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: _____ : _____ (please use 24-hr clock.)
End Date _____ / _____ / _____ Time: _____ : _____ (please use 24-hr clock.)

What was the duration of the event/deviation? ____ : ____ (hrs:min) or _____ days
(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for Notification: (please check only 1 box and go to the corresponding section)

☐ Excess Emissions – Complete Section 1 and Certify

☐ Deviation from Permit Condition – Complete Section 2 and Certify

☐ Deviations from COBC, CO, or Settlement Agreement – Complete Section 2 and Certify

Section 1. Excess Emissions

(a) **Was the exceedance** ☐ Intermittent or ☐ Continuous

(b) **Cause of Event** (Check one that applies):

☐ Start Up/Shut Down ☐ Natural Cause (weather/earthquake/flood)
☐ Control Equipment Failure ☐ Schedule Maintenance/Equipment Adjustment
☐ Bad Fuel/Coal/Gas ☐ Upset Condition ☐ Other _____

(c) **Description**
Describe briefly, what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance.

(d) **Emissions Units Involved:**
Identify the emissions unit involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

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

☐ Opacity _____ % ☐ Venting _____ gas/scf ☐ Control Equipment Down
☐ Fugitive Emissions ☐ Emission Limit Exceeded ☐ Recordkeeping Failure
☐ Marine Vessel Opacity ☐ Flaring ☐ Other

(f) **Unavoidable Emissions:**

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

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

Certify Report (go to end of form)

Section 2. Permit Deviations

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

☐ Emissions 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
☐ Insignificant Emissions Unit
☐ Stationary Source Wide

(b) **Emissions Units (EU) Involved:**

Identify the emissions units 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: _____

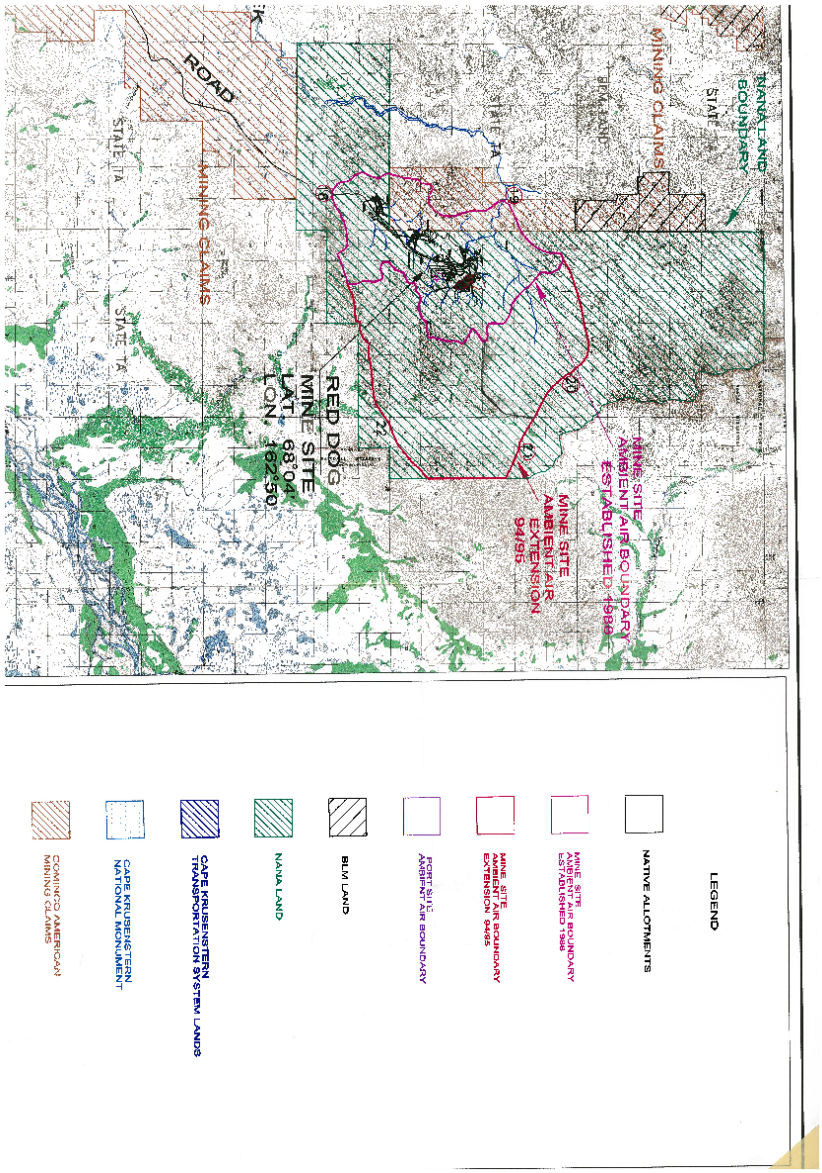
NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 114).*

Submit this report in accordance with the submission instructions on the Department's Standard Permit Conditions web page at http://dec.alaska.gov/air/air-permit/standard-conditions/standard-conditions-iii-and-iv-submission-instructions/.

If submitted online, report must be submitted by an authorized E-signer for the stationary source (according to Condition 114.

[18 AAC 50.346(b)(3)]

Section 15. Map of Red Dog Mine Ambient Boundary



Section 16. EEMSP Summary Report Form

FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE

[Note: This form is referenced in 40 C.F.R. 60.7, Subpart A-General Provisions]

Pollutant *(Circle One)*: SO_2 NO_X TRS H_2S CO Opacity

Reporting period dates: From _____ to _____

Company:
Emission Limitation: _____

Address: _____

Monitor Manufacturer: _____

Model No.: _____

Date of Latest CMS Certification or Audit: _____

Process Unit(s) Description: _____

Total source operating time in reporting period [1]: _____

Emission Data Summary [1]	**CMS Performance Summary** [1]
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown ..... ____	a. Monitor equipment malfunctions ..... ____
b. Control equipment problems ..... ____	b. Non-Monitor equipment malfunctions ..... ____
c. Process problems ..... ____	c. Quality assurance calibration ..... ____
d. Other known causes ..... ____	d. Other known causes ..... ____
e. Unknown causes ..... ____	e. Unknown causes ..... ____
2. Total duration of excess emissions ..... ____	2. Total CMS Downtime ..... ____
3. Total duration of excess emissions x (100) / [Total source operating time] ..... ____ % [2]	3. [Total CMS Downtime] x (100) / [Total source operating time] ..... ____ % [2]

[1] For opacity, record all times in minutes. For gases, record all times in hours.
[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in 40 C.F.R. 60.7(c) shall be submitted.

Note: On a separate page, describe any changes since last quarter in CMS, process or controls.

I certify that the information contained in this report is true, accurate, and complete.

Name: _____

Signature: _____ *Date*: _____

Title: _____

Alaska Department of Environmental Conservation
Air Permits Program

January 28, 2020

Teck Alaska Incorporated
Red Dog Mine

STATEMENT OF BASIS
for the terms and conditions of
Permit No. AQ0290TVP03

Prepared by Kathie Mulkey
ADEC AQ/APP (Anchorage)

Revised by Kathie Mulkey
Revision 1: September 3, 2020

Revised by Kathie Mulkey
Revision 2: June 21, 2022

Revised by Kathie Mulkey
Revision 3: Public Comment - December 30, 2022

INTRODUCTION

This document sets forth the statement of basis for the terms and conditions of Operating Permit AQ0290TVP03.

STATIONARY SOURCE IDENTIFICATION

Section 1 of Operating Permit AQ0290TVP03 contains information on the stationary source as provided in the Title V permit application.

The stationary source is owned and operated by the Permittee, Teck Alaska Incorporated. The SIC code for this stationary source is 1031 - Lead and Zinc Ores.

The stationary source is engaged in zinc and lead mining activities from an open pit mine. Ore containing lead and zinc is milled to produce lead and zinc concentrate in a powder form. The stationary source consists of a quarry, an overburden stockpile, an ore crushing operation, an ore stockpile, a concentrating mill, a concentrate stockpile and a concrete truck loading facility. Support facilities include fuel storage tanks, a power generating system, a wastewater treatment facility, a service/office complex, a personnel accommodations complex, a construction camp, refuse incinerators, a concrete batch plant, an asphalt plant, a rock crusher, maintenance shops, an airport, the tailings pond and a storage yard. The emission sources covered under this permit are 22 diesel-fired electric generator engines (3 of which are nonroad engines), 7 standby oil-fired heaters and 43 small heaters (consolidated under one EU ID as MH-4), 2 incinerators, 4 baghouses, 2 scrubbers on ore or concentrate conveyors, 8 miscellaneous fugitive sources, one concrete batch plant, one asphalt plant, and 4 diesel storage tanks.

EMISSION UNIT INVENTORY AND DESCRIPTION

Under 18 AAC 50.326(a), the Department requires operating permit applications to include identification of all emissions-related information, as described under 40 CFR 71.5(c)(3).

The emissions units at the Red Dog Mine that have specific monitoring, recordkeeping and reporting (MR&R) requirements are listed in Table A of Operating Permit AQ0290TVP03.

Table A of Operating Permit AQ0290TVP03 contains information on the emissions units regulated by this permit as provided in the application and addendum. The table is provided for informational and identification purposes only. Specifically, the emission source rating/size provided in the table does not create an enforceable limit.

EMISSIONS

A summary of the potential to emit (PTE)[1] and assessable PTE as indicated in the significant modification application from the Red Dog Mine, and verified by the Department, is shown in the table below.

[1] *Potential to Emit* or *PTE* means the maximum capacity of a stationary source to emit a pollutant under its physical or operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. Secondary emissions do not count in determining the potential to emit of a stationary source, as defined in AS 46.14.990(22).

Table F – Emissions Summary, in Tons Per Year (tpy)

Pollutant	NO_X	CO	PM	SO_2	CO_2e	VOC	HAP	Total (excluding CO_2e)
PTE	3,259.99	281.73	238.01	276.13	277,899	324.61	10.12	4,387.88
Assessable PTE	3,259.99	281.73	238.01	276.13	0	324.61	7.42	4,387.88

Notes:

The assessable HAP total includes 4.653 tpy of lead compounds from ore handling and 2.763 tpy of HCl from the incinerators. Assessable HAP includes any HAP that is not included in the VOC or PM total (i.e., fugitive lead and HCl). To avoid double counting, Total PTE only includes the portion of HAP that is assessable.

CO_2e emissions are defined as the sum of the mass emissions of each individual greenhouse gas (GHG) adjusted for its global warming potential. CO_2e emissions are excluded from the total PTE and total assessable PTE as they are not regulated under 18 AAC 50.

The assessable PTE listed under Condition 93.1 is the sum of the PTE of each individual air pollutant, other than GHGs, for which the stationary source has the potential to emit. The emissions listed in Table F are estimates to be used for informational purposes only. The listing of the emissions does not create an enforceable limit to the stationary source.

The PTE of criteria pollutants and HAP is based on emission calculations determined by the Department for the previous significant revision, and revised to reflect the current emissions unit inventory. Potential emissions were calculated using EPA's AP-42 emission factors, vendor data, and mass balance. HAP emissions were calculated using EPA's AP-42 emission factors and vendor data.

When Red Dog Mine began operating in accordance with Condition 39, the combined PTE of HAP dropped to 10.1 tpy with the largest individual HAP being lead at 4.75 tpy. The Permittee was therefore able to reclassify the stationary source as a HAP area source because emissions are below both major source thresholds for HAP emissions. The fugitive PTE from the quarry operations (EU ID MF-6) are 134 tpy of VOC from ethanol. Teck estimates that it will require approximately 30 percent more ethanol for the same level of freeze protection as methanol but ethanol is not a listed HAP.

HAP emissions from the incinerators were previously calculated using emission factors from AP-42, Table 2.1-2. Using AP-42, the hydrogen chloride (HCl) PTE for both incinerators was 17.6 tpy. Using results from a 2013 Department accepted source test report, the HCl PTE for both incinerators was 2.8 tpy.

BASIS FOR REQUIRING AN OPERATING PERMIT

In accordance with AS 46.14.130(b), an owner or operator of a Title V source[2] must obtain a Title V permit consistent with 40 CFR Part 71, as adopted by reference in 18 AAC 50.040.

[2] *Title V source* means a stationary source classified as needing a permit under AS 46.14.130(b) [ref. 18 AAC 50.990(111)]

Except for sources exempted or deferred by AS 46.14.120(e) or (f), AS 46.14.130(b) lists the following categories of sources that require an operating permit:

- A major source;
- A stationary source, including an area source, subject to federal New Source Performance Standards (NSPS) under Section 111 of the Clean Air Act or National Emission Standards for Hazardous Air Pollutants (NESHAP) under Section 112 of the Clean Air Act;
- Another stationary source designated by the Federal Administrator by regulation.

The Permittee is required to obtain an operating permit for the Red Dog Mine as specified under 18 AAC 50.326(a), 40 CFR 71.3(a), because the stationary source is:

- A major source. This stationary source is a major source because
  - as defined in Section 302 of the Clean Air Act, it directly emits, or has the potential to emit, 100 tpy or more of any air pollutant;
- A source subject to a standard, limitation or other requirement under Section 111 of the Act (NSPS) not exempted or deferred under AS 46.14.120(e) or (f).
- A source designated by the Federal Administrator by regulation, or the Department under a finding that public health or air quality effects provide a reasonable basis to regulate the source.

AIR QUALITY PERMITS

Permits to Operate

On June 17, 1988, the Department authorized the Red Dog Mine Project construction under the State Air Quality Control Prevention of Significant Deterioration preconstruction review procedures and issued Permit to Operate (PTO) 8732-AA001. The decision authorized construction of an 806,000 ton per day lead and zinc mine, processing facility, power plant, personnel accommodation complex and other support facilities. The most recent PTO issued for this stationary source is PTO 9332-AA003, Amendment 2. This permit included all construction authorizations issued through October 26, 1994 and was issued before January 18, 1997 (the effective date of the divided Title I/Title V permitting program). All stationary source-specific requirements established in this PTO are included in the new operating permit as described in Table G.

Title I (Construction and Minor) Permits

Construction Permit 9932-AC005, originally issued December 10, 1999, authorized a production rate increase, with ancillary changes to the processing plant and power plant. The Department reviewed this project under the state approved PSD program and imposed best available control technology on the new and modified equipment. Notwithstanding the Department's actions, U.S. EPA issued an order to the Department and applicant challenging the original decision under Part 168 of the Clean Air Act and prohibited construction until defects in the power plant modification BACT decisions were corrected. After the U.S. Supreme Court sided with U.S.

EPA, Construction Permit 9932-AC005 Revision 2 contains the corrected BACT consistent with federal guidelines.

Construction Permit 0032-AC018, issued on April 26, 2001, authorized the applicant to install a seventh 5 MW diesel electric generator engine in a new power plant originally constructed for the production rate increase project, but with owner requested limits to avoid PSD review.

Construction Permits 0032-AC018 Rev. 1 and 9932-AC005 Rev. 2 were issued on November 26, 2002 and on July 16, 2003, respectively. The stationary source-specific requirements established in Construction Permits 0032-AC018 Revision 1 and 9932-AC005 Revision 2 are included in the operating permit as described in Table H and Table I.

Minor Permit AQ0290MSS01, issued on June 2, 2005, authorized airport paving project activities and equipment. The Permittee submitted a request to rescind AQ0290MSS01 on February 19, 2013. The on-site paving project was completed. All emissions units authorized by AQ0290MSS01 (EU IDs 1 through 8) were removed from the Mine site. ADEC sent permit rescission letter on June 14, 2013.

Minor Permit AQ0290MSS02, issued on October 4, 2005, authorized the applicant to install a baghouse on the gyratory crusher and jaw crusher building. The source-specific requirements established in this Title I permit are included in the operating permit as described in Table J.

Minor Permit AQ0290MSS03, issued on August 3, 2006, authorized the installation of a baghouse on the coarse ore storage building. The stationary source-specific requirements established in this Title I permit are included in the operating permit as described in Table K.

Minor Permit AQ0290MSS05, issued on June 9, 2005, authorized the relocation of a drill rig to conduct gas exploration through shale beds located near the Red Dog Mine site. The Permittee submitted a request to rescind AQ0290MSS05 on July 7, 2013. The Permittee stated that the activities related to the Shallow, Shale-Hosted Natural Gas Exploration project ended in August 2012. The exploration wells were cemented in and the equipment used was shipped offsite. The project was permanently closed. All emissions units authorized by AQ0290MSS05 (EU IDs SG-1 through 17) were removed from the Mine site. ADEC sent permit rescission letter on August 2, 2013.

Minor Permit AQ0290MSS06 issued on July 8, 2008, and Administrative Amendment AQ0290MSS06, Revision 1, issued on May 5, 2009, authorized the applicant to relocate a portable rock crushing plant to the Red Dog Mine in support of construction and maintenance activities. The source-specific requirements established in this Title I permit are included in the operating permit as described in Table L.

Minor Permit AQ0290MSS07, issued on March 10, 2010, authorized the applicant to install a tailings sump emergency generator (EU ID MG-26) at the Red Dog Mine tailings impoundment. AQ0290MSS07 has been terminated with the issuance of AQ0290MSS13 that removes EU ID MG-26 from the emissions unit inventory.

Commented [CDL9]: See Comment No. 7 to Attachment I.

Minor Permit AQ0290MSS08, issued on April 14, 2017, authorized a portable asphalt plant. The source-specific requirements established in this Title I permit are included in the operating permit as described in Table M.

Minor Permit AQ0290MSS09, issued on May 3, 2018, authorized the installation of new equipment, expansion of the mill, and various other upgrades. The source-specific requirements established in the Title I permit are included in the operating permit as described in Table N.

Minor Permit AQ0290MSS10, issued on November 1, 2019, rescinded Conditions 30.2 and 31.4a of Construction Permit 9932-AC005 Revision 2 and Condition 20.4a of Construction Permit 0032-AC018 Revision 1. The conditions required "no less than" quarterly visible emissions observations and were established under a previous State Implementation Plan (SIP).

Minor Permit AQ0290MSS11, issued on November 1, 2019, authorized the installation of three new boilers. The permit also established and ORL to avoid minor permitting under 18 AAC 50.502(c)(3) and allowed the new units to be classified as limited use boilers under 40 CFR 63 Subpart DDDDD.

Minor Permit AQ0290MSS12, issued on April 26, 2022, was public noticed with Operating Permit AQ0290TVP03, Revision 2, using the integrated review procedures of 18 AAC 50.326(c)(1). The application, received on November 16, 2021, was to establish an ORL that will allow the Permittee to reclassify the stationary source as an area source of HAP emissions. Minor Permit AQ0290MSS12 rescinds Minor Permit AQ0290MSS11 and carries forward the ORL established in AQ0290MSS11.

Minor Permit AQ0290MSS13, issued on MM/DD, 2023, was public noticed with Operating Permit AQ0290TVP03, Revision 3, using the integrated review procedures of 18 AAC 50.326(c)(1). The application, received on September 27, ~~2021~~2022, was a request to establish an ORL for EU MG-29 and to revise several conditions from previous Title I permits. EU MG-29 was previously operated as an emergency unit and the Permittee wants to operate it as a non-emergency unit. Operating EU MG-29 no more than 4,550 hours in any consecutive 12-month period allows the Permittee to avoid a minor permit under 18 AAC 50.502(c)(3).

Title V Operating Permit Application, Revisions and Renewal History

Under AS 46.14.190, the owner or operator has requested multiple operating permits for this stationary source.

Permit AQ0290TVP01. The owner or operator submitted an application for an initial Title V operating permit on December 30, 1997. The Department issued Operating Permit AQ0290TVP01 on November 7, 2003.

- Revision 1 to AQ0290TVP01. The Department administratively amended the operating permit to incorporate the provisions of Minor Permit AQ0290MSS03.

Permit AQ0290TVP02. The owner or operator submitted a renewal application on June 24, 2008. Additional information was received on September 29, 2008, August 19, 2009 (Electronic Emission Calculations), June 4, 2010 (NESHAP Subpart ZZZZ applicability), July 28, 2010 (permit renewal amendment related to NOx requirements related to Notice of Violation), May 17, 2011 (Boiler MACT applicability determination) and incorporated into the renewal permit, September 13, 2012 (change in Responsible Official) and March 27, 2013 (NSPS and NESHAP applicability update). The Department issued Operating Permit AQ0290TVP02 on March 17, 2014.

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- Revision 1 to AQ0290TVP02: The Permittee submitted a letter to the Department on May 1, 2015 requesting revisions to the operating permit. The Permittee submitted the same requests on July 13, 2015 using the required Title V application forms.
- Revision 2 to AQ0290TVP02: The Permittee submitted an application to modify Operating Permit AQ0290TVP02 Rev 1 on November 21, 2017. The application included new emissions units and owner requested limits to avoid PSD review for NOx and direct $PM_{2.5}$. The application also included requests to incorporate Minor Permits AQ0290MSS08 and AQ0290MSS09 in addition to removing several emissions units. The Permittee initially requested an integrated review with Minor Permit AQ0290MSS09 under 18 AAC 50.326(c)(1) but agreed on March 22, 2018 to public notice the permits separately.

Permit AQ0290TVP03. The owner or operator submitted a renewal application on July 18, 2018. The Permittee submitted addendums to the renewal application on November 14, 2018 and June 20, 2019.

- Revision 1 to AQ0290TVP03: The Permittee submitted an informal review request on February 18, 2020 concerning Condition 45. Revision 1 incorporates the Director's final decision, dated June 26, 2020, regarding the informal review request. It included revisions to the permit condition and the statement of basis.
- Revision 2 to AQ0290TVP03: The Permittee submitted an application on November 16, 2021 to establish an ORL that will allow the Permittee to reclassify the stationary source as an area source of HAP emissions. Revision 2 incorporates Minor Permit AQ0290MSS12 using the integrated review procedures of 18 AAC 50.326(c)(1). Revision 2 also includes NESHAP requirements that will be applicable before and after the stationary source is reclassified as an area source. The application indicated that EU IDs MH-3 was retired on 9/1/2020 and EU IDs MH-1 and MH-2 were retired on 10/26/2021. Therefore, the three units were removed from the operating permit in this revision. Additionally, standard permit conditions were updated to the versions adopted on July 22, 2020.
- Revision 3 to AQ0290TVP03: The Permittee submitted an application on December 13, 2021 for a Title V administrative amendment. Upon further review, the Department determined that Teck was requesting a combination of administrative, minor, and significant revisions to the operating permit. Then on September 26, Teck submitted an addendum to the application along with the application for Minor Permit AQ0290MSS13. Revision 3 incorporates Minor Permit AQ0290MSS13 using the integrated review procedures of 18 AAC 50.326(c)(1) and includes most of the administrative, minor, and significant revisions requested in the original application.

COMPLIANCE HISTORY

The stationary source has operated at its current location since 1989. Review of the permit files for this stationary source, including past inspection reports, indicates that the stationary source had been found to be out of compliance during the 2015, 2016, and 2018 full compliance evaluations. The compliance certification provided with the most recent application addendum

indicates that the Permittee is in compliance with all permit requirements of Operating Permit AQ0290TVP02 Revision 2 as of June 7, 2019.

APPLICABLE REQUIREMENTS FROM PRECONSTRUCTION PERMITS

Incorporated by reference at 18 AAC 50.326(j), 40 CFR Part 71.6 defines "applicable requirement" to include the terms and conditions of any preconstruction permit issued under rules approved in Alaska's State Implementation Plan (SIP) and any pre-construction permits issued by the EPA.

Alaska's SIP includes the following types of pre-construction permits:

- Permit to Operate issued on or before January 17, 1997 (these permits cover both construction and operations);
- Construction permits issued on or after January 18, 1997 or later; and
- Minor permits issued on or after October 1, 2004.

Preconstruction permit terms and conditions include both source-specific conditions and conditions derived from regulatory applicable requirements such as standard permit conditions, generally applicable conditions and conditions that quote or paraphrase requirements in regulation. These requirements include, but are not limited to, each emissions unit- or source-specific requirement established in these permits issued under 18 AAC 50 that are still in effect at the time of this operating permit issuance.

Table G, Table H, Table I, Table J, Table K, Table L, Table M, Table N, Table O, and Table P respectively list the requirements carried over from PTO 9932-AA003, Construction Permit 0032-AC018 Rev. 1, Construction Permit 9932-AC005 Rev. 2, and Minor Permits AQ0290MSS02, AQ0290MSS03, AQ0290MSS06 Revision 1, AQ0290MSS08, AQ0290MSS09, AQ0290MSS12 and AQ0290MSS13 into Operating Permit AQ0290TVP03 to ensure compliance with the applicable requirements. Minor Permit AQ0290MSS10 is referenced in Table H and Table I below.

Table G - Comparison of Permit to Operate 9932-AA003, Amendment 2 Conditions to Operating Permit AQ0290TVP03 Conditions[3]

Permit No. 9932-AA003 # 2 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
Exhibit A	Emission Unit Inventory	Section 2	Updated the list based on new information from most recent construction permits, 0032 AC018 Rev. 1 & 9932-AC005 Rev. 2, and the renewal application.
3 and Exhibit B	Permittee shall comply with the State Ambient Air Quality Standards and increments established in Exhibit B (Operational Limitations)	1 - 19, 23 & 25	These limitations have been carried forward in the operating permit conditions based on the applicable current SIP standards and construction permits 0032-AC018 Rev. 1, 11/26/02 and 9932-AC005 Rev. 2, 7/16/03.

[3] This table does not include all standard and general conditions.

Permit No. 9932-AA003 # 2 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
4 & 5	Permittee shall maintain and operate, in accordance with … to provide optimum control of air contaminant emissions and to meet PM limits…	95	Replaced with the standard condition language and the corresponding requirements from Permit No. 9932-AC005 Rev. 1.
6, Exhibit B (Part F), Exhibit C (Test Methods), and Exhibit D (item 4)	Sulfur limits and MR&R	19, 19.4, 19.5, & 23	Changed the sulfur content limit to from 0.25% to 0.16% averaged over any consecutive 12-month period, as revised in Construction Permits 0032-AC018 Rev. 1 and 9932-AC005, Rev.2. Carried the MR&R language from the standard condition.
11 & Exhibit B	Operational limit for EU IDs MG-7, MG-8, & MG-9	27.3c	Same operational limit.
16 & 17 and Exhibit D (Item 6)	Fugitive Dust Control	97	Replaced with the standard condition language adopted and the corresponding requirements from Permit No. 9932-AC005 Rev. 1.
18 and Exhibit F	Ambient Air Quality monitoring – Install and maintain signs to prohibit public access…	Section 4	Superseded by the requirements in Permit No. 9932-AC005 Rev. 2.
25	Reporting requirements for malfunctioning or non-operable recording device.	20	The EU IDs listed in Exhibit A of Permit 9932-AA003 #2 were added for clarity.
27	General recordkeeping requirements	113	Record retention is now five years per regulation. Standard condition.
Exhibit D (Item 1)	Operating time for each source and kWh for generators	27.3	Revised, as required in Construction Permits 0032-AC018 Rev. 1 and 9932-AC005 Rev.2.
Exhibit D (Item 2)	Fuel consumption and type	26.1 & Table C	Applies only to EU IDs MG-7, MG-8, MG-9, MG-14 MG-15, MG-19 and MG-20 for the purpose of monitoring emissions thresholds for these emissions units.
Exhibit D (Item 5)	Amount and category of Solid waste	102	Requirement is carried forward in association with the Open Burning conditions.

Table H - Comparison of Construction Permit 0032-AC018 Rev. 1 Conditions to Operating Permit AQ0290TVP03 Conditions[4]

Permit No. 0032-AC018 Rev. 1 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
14	Ambient Air Quality Protection (nonroad engine operating restriction)	NA	The Permittee indicated in supplemental information provided on March 27, 2013 that EU ID MXG-100 was removed from the source upon approval to install EU ID MXG-101 under AQ0290MSS06 Rev.1. This condition is obsolete and not carried into AQ0290TVP03.
15	Stack Parameter Requirements	N/A	Requirements were not carried forward because they are already fulfilled as indicated by the Permittee in the renewal application.
18.2	NOx emissions limit for EU ID MG-18 to avoid PSD review	29.1	This requirement is an ORL to avoid PSD review and was established in Construction Permit 0032-AC018 Rev 1. A more restrictive NOx limit in Condition 31 became applicable in Oct 2019 upon startup of an SCR control system on EU ID MG-18. Therefore, compliance with Condition 31 ensures compliance with the limit in Condition 29.1.
20.1a	VE SIP Requirement	N/A	The VE standard was not carried forward because effective 9/13/07, the EPA approved certain changes to the SIP limits, including removal of the "more than 3 minutes in any one hour criterion".
20.4	VE monitoring frequency	NA	For EU ID MG-18, the VE monitoring frequency of "no less than once each calendar quarter" was not carried forward. The condition was rescinded by Minor Permit AQ0290MSS10.

Table I - Comparison of Construction Permit 9932-AC005 Rev. 2 Conditions to Operating Permit AQ0290TVP03 Conditions[4]

Permit No. 9932-AC005 Rev 2 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
10 & Section 14	Public Access Control Plan	22 and Section 4	Similar requirements. Removed obsolete requirements. The last sentence was removed because the Department cannot approve changes to the Public Access Control Plan without a public comment period.

[4] This table does not include all standard and general conditions.

Permit No. 9932-AC005 Rev 2 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
13 & 18	SO_2 requirements: Fuel sulfur limits & MR&R	19, 23, & 28	Same limits and requirements.
30.2 & 31.4a	VE monitoring frequency	NA	For EU IDs MI-2, MI-3, MG-1 through MG-6, and MG-17, the VE monitoring frequency of "no less than once each calendar quarter" was not carried forward. The condition was rescinded by Minor Permit AQ0290MSS10.
14, 19, & 20	NO_X requirements	30	Incorporated the combined NO_X limit for EU IDs MG-1 through MG-6, MG-17 (with and without SCR) and MG-18. Added Conditions 30.4 and 30.4b(ii) as directed by the settlement agreement for Notice of Violation No. 2009-1030-40-8188. Replaced the NOx emission limits of Conditions 14 and 19 with Condition 25, per Permit 9932-AC005 Rev. 2.
15	Fugitive particulate matter requirements	24	Similar requirements. However, references to DMTS paved roads and the Asphalt plant have been removed as the DMTS does not have paved roads and the Asphalt plant, which was temporary, has been removed from this source. Condition 15.3 was removed because the Department cannot approve alternative dust control agents and/or strategies without a public comment period.
17	ORL to avoid PSD for Carbon Monoxide for EU IDs MG-1 through MG-6, MG-17 and MG-18	27	Similar limits and requirements, except included a recurring CO source test requirement for demonstration of periodic compliance under 40 CFR 71.
21	ORL to avoid PSD for Particulate Matter for EU IDs MG-1 through MG-6 and MG-18	32	Similar limit and requirements, except rescinded Condition 19.4 of Construction Permit 0032-AC018 Rev. 1 requiring source test for EU ID MG-18 (requirement already fulfilled); and included a recurring PM source test requirement for demonstration of periodic compliance under 40 CFR 71.
22	NO_X BACT limits, source tests and reporting requirements	25.1, 25.2, & Table B	Initial NO_X source tests requirement already fulfilled for these sources. The construction commencement notification requirement for EU ID MG-17 is rescinded; already fulfilled. Included recurring NOx source test requirement for demonstration of periodic compliance under 40 CFR 71.

Permit No. 9932-AC005 Rev 2 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
23	VE and PM BACT limits and source tests and reporting requirements	25.3 through 25.6, & Table B	Did not include PM source test requirement for EU IDs MG-11 through MG-15, MG-19, through MG-21, MI-3, MD-1 through MD-4, MD-6 through MD-8, and MF-4 because these initial test requirements were already fulfilled. Included recurring VE and PM source test requirements for demonstration of periodic compliance under 40 CFR 71.
32	Bulk material handling	97	Carried forward emissions unit-specific requirements but the last sentence of the first subcondition was removed. The Department cannot approve updates to the Dust Control Plan without a public comment period. Incorporated standard permit condition language.
35	Air pollution prohibited	99	Carried forward emissions unit-specific requirements. Incorporated standard permit condition language.
33	Open burning	102	Carried forward emissions unit-specific requirements.
37	Air Pollution Control Practice	95	Carried forward emissions unit-specific requirements. Incorporated standard permit condition language.
38	Construction or modification	100	Similar requirements.
39.6	Source testing for emissions of ammonia	98	Similar requirements but the last sentence was removed because the Department cannot approve changes to specified test methods without a public comment period.
41	Alternate Test Methods	NA	Condition was removed because the Department cannot approve alternate test methods without a public comment period
50.2	Recordkeeping requirements for NSPS sources	113.2	Removed recordkeeping requirements pertaining to 40 CFR 61, Subparts A & E in Construction Permit 9932-AC005 Rev. 2. (No emissions units under this permit regulated by 40 CFR 61).

Table J - Comparison of Minor Permit AQ0290MSS02 Conditions to Operating Permit AQ0290TVP03 Conditions[5]

Permit No. AQ0290MSS02 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
1	Emission Unit Inventory	Section 2	EU IDs MD-7 and MD-8 have been incorporated into the emissions unit inventory. Footnotes have been added to Table A to clarify that MD-7 and MD-8 are the baghouse controls (emission points) for MF-2 and MF-3 respectively. EU IDs MF-2 and MF-3 were the non-industrial processes listed in AQ02090TVP01, but these emissions unit identifiers are no longer relevant with the approved installation of EU IDs MD-7 and MD-8.
2 and 3	Requirements to Avoid PSD Classification under 18 AAC 50.502(c)(3)	33.2 and 33.3	Same requirements.

Table K - Comparison of Minor Permit AQ0290MSS03 Conditions to Operating Permit AQ0290TVP03 Conditions[5]

Permit No. AQ0290MSS03 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
1	Emission Unit Inventory	Section 2	Emission Unit MD-9 has been incorporated into the emission unit inventory.
5	Visible Emission Standards	1	Similar requirements incorporated in Condition 1.
6	Particulate Matter Standards	8	Similar requirements already incorporated in Condition 8.

Table L - Comparison of Minor Permit AQ0290MSS06, Revision 1 Conditions to Operating Permit AQ0290TVP03 Conditions[5]

Permit No. AQ0290MSS06 Rev 1 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
1	Emission Unit Inventory	Section 2	Emissions Units PRC-1 and PRC-2; PRC-3 through PRC-11; and MXG-l01 have been incorporated into the emissions unit inventory.
2	Maintenance Requirements	95.3	Same requirement.

[5] This table does not include all standard and general conditions.

Permit No. AQ0290MSS06 Rev 1 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
6	Visible Emission Standards	6	Requirements carried forward with the following revision: Added Condition 6.3 Include copies of the records of crusher operation with the operating report required by Condition 118 for the period covered by the report.
10	Minor Permit under 18 AAC 50.502(c)(3Xii) Classification Avoidance – Fuel Sulfur Limit	23	Same Requirement
11	Prevention of Significant Deterioration (PSD) Modification Avoidance Requirements for Nitrogen Oxide Emissions.	29.2	Same Requirement.
12	Fugitive Emissions	97.8	Same Requirement.
13	Ambient Air Quality Protection Requirements	24.3 and 24.4	Same Requirement.

Table M - Comparison of Minor Permit AQ0290MSS08 Conditions to Operating Permit AQ0290TVP03 Conditions[6]

Permit No. AQ0290MSS08 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
Section 1	Emission Unit Inventory	Section 2	EU IDs AP-11 through AP-20 were added.
4.1	Assessable PTE	93.1	PTE was changed from 5,386 tpy to 4,330 tpy.
7–9	VE Monitoring, Recordkeeping, & Reporting for Asphalt Plants	7	Same Requirement.
11	Particulate Matter Emission Standards for Asphalt Plants	9	Same Requirement.
12 & 13	PM Recordkeeping and Reporting for Asphalt Plants	10 & 11	Same Requirement.
18	Pollution Control Equipment Breakdown Reporting	21	Same Requirement.
19	ORL to avoid PSD review and minor permit classification.	36	Same Requirement.
20	ORL to avoid ambient air quality analysis	37	Same Requirement.
21	NSPS Subpart I - Hot Mix Asphalt Facilities	58	Same Requirement.

[6] This table does not include all standard and general conditions.

Table N - Comparison of Minor Permit AQ0290MSS09 Conditions to Operating Permit AQ0290TVP03 Conditions[7]

Permit No. AQ0290MSS09 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
Section 1	Emission Unit Inventory	Section 2	EU IDs MG-27, MG-28, MD-11, MD-12, and MD-13 were added. The rating of MH-4 was increased to 10.66 MMBtu/hr.
3.1	Assessable PTE	93.1	Same Requirement.
5	ORL to avoid PSD review for NOx	31	Same Requirement.
6	ORL to avoid PSD review for $PM_{2.5}$	32	Same Requirement.

Table O - Comparison of Minor Permit AQ0290MSS12 Conditions to Operating Permit AQ0290TVP03 Conditions[7]

Permit No. AQ0290MSS12 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
5	Owner Requested Limit to reduce HAP emissions below major source thresholds	44	Same Requirement

Table P - Comparison of Minor Permit AQ0290MSS13 Conditions to Operating Permit AQ0290TVP03 Revision 3 Conditions[7]

Permit No. AQ0290MSS13 Condition Number	Description of Requirement	Permit No. AQ0290TVP03 Condition Number	How condition was revised
4.1	Concurrent operation of EU MG-18 with EUs MG-1 through MG-6	27.1c	Same Requirement.
6	Emissions monitoring for EU MG-17 with SCR control	30.3	Same Requirement.
7.1	Allow use of NOx emission factor from source test without permit revision	30.5c	Same Requirement.
8	Owner Requested Limit to avoid classification under 18 AAC 50.502(c)(3)	38	Same Requirement

[7] This table does not include all standard and general conditions.

Table Q - Comparison of Operating Permit AQ0290TVP03 Revision 2 Conditions to Operating Permit AQ0290TVP03 Revision 3 Conditions[8]

AQ0290TVP03 Revision 2 Condition Number	Description of Requirement	AQ0290TVP03 Revision 3 Condition Number	How condition was revised
Section 2	Emission Unit Inventory	Section 2	EU MG-26 was deleted from Table A because it was removed from service in 2020.
1	Visible Emissions Standard	1	Requirements for EUs MC-1 and MF-1 were modified.
3 – 5	VE MR&R	3 – 5	Smoke/No Smoke plan was added because Method 9 cannot be performed on EU MF-1.
6.1c	VE MR&R for rock crusher	NA	The requirement was not in Minor Permit AQ0290MSS06 Rev 1 or in the crusher general permit (MG9) and was therefore removed from the permit.
8.6	Particulate Matter Emissions Standard	8.6	The reference to "Conditions 3 – 5" was removed because MR&R requirements for MC-1 are in Condition 97.
19	Sulfur Compound Emissions	19	EU MF-1 was removed from the condition because the application for Rev 3 indicated that MF-1 does not have sulfur compound emissions.
25 (including subconditions) & Table B	BACT Limits	25 (including subconditions) & Table B	References to EUs MF-2 & MF-3 were replaced by MD-7 & MD-8, respectively. Footnote removed
27.1c	Concurrent operation for testing purposes	27.1c	See Table P
30	PSD avoidance limits	30	Added caveat from construction permit stating the time period when condition is applicable.
30.1	NOx Limits	30.1	Same requirements put in table format. Condition was footnoted.
30.2	Ammonia limit for EU MG-17	30.4	Same requirement.
30.3	SCR system for NOx control	30.2	Removed "after startup"
30.4a, c, & d	Emissions monitoring for EU MG-17	30.3	See Table P
NA	Ammonia sampling for EU MG-17	30.4a(i)	Teck installed a CEMS for NH_3 in January 2022 and suggested that it be used to demonstrate compliance with the NH_3 limit established in Condition 20.3(a) of Construction Permit 9932-AC005 Rev 2, 7/16/03.

[8] This table does not include all standard and general conditions.

AQ0290TVP03 Revision 2 Condition Number	Description of Requirement	AQ0290TVP03 Revision 3 Condition Number	How condition was revised
30.4b	Ammonia sampling for EU MG-17	30.4a(ii)	Teck wanted to keep the Drager tube sampling as an alternative compliance demonstration if the CEMS or datalogger is not operating.
30.5	MR&R for SCR system	30.5	See Table P
30.5d(vi)	Report weekly NH_3 concentration	30.4b(ii)	
30.5d(viii)	Report 12-month rolling NOx emissions	30.5d(vii)	Same requirement, slight change in wording.
31.1 & 31.2	Initial source test and one-time reporting requirement were both completed.	NA	Conditions removed.
31.4a	Initial source test for MG-18 w/ SCR	31.2	Revised to apply to ongoing source testing and list level was modified.
31.4b(ii)	Subsequent source test frequency	31.2d(ii)	Reduces testing frequency if a test has been conducted in the previous 11 months.
34	NOx limit for EU MG-26	NA	MG-26 was removed in 2020.
NA	Operating limit for EU MG-29	38	See Table P
56	NSPS Subpart Dc fuel consumption	56	Added alternative recordkeeping option provided under 40 CFR 60.48c(g)(2) and removed the 2 year record retention requirement because Condition 113 requires five yrs.
65 – 67	NSPS Subpart IIII requirements	66 – 68	Updated requirements applicable to EU MG-29 as a non-emergency engine. Also updated changes to NSPS Subpart IIII effective 8/10/22.
71.2	NESHAP Subpart A	NA	Condition is not applicable to a HAP area source.
73 – 79	NESHAP Subpart ZZZZ	NA	Conditions are not applicable to HAP area sources.
85 – 92	NESHAP Subpart DDDDD	NA	Conditions are not applicable to HAP area sources.
93	Timing for applicability of NESHAP Subpart JJJJJJ	NA	Condition is no longer necessary.
108.1	Potential to emit for assessable fees	93.1	The condition no longer includes the PTE when operating as a HAP major source.

NON-APPLICABLE REQUIREMENTS

This section discusses standard conditions that have not been included in the permit and other requirements that are not included for specific reasons.

- **NSPS Subpart Dc Particulate Matter Standard**: Under 40 CFR 60.43c(c), the particulate matter standard is not applicable to EU IDs MH-6 through MH-8 because the input capacities are less than 30 MMBtu/hr.

- **NSPS Subpart Kb:** The requirement for the Permittee to keep records showing the dimensions and capacity of EU IDs MT-1 through MT-4, as previously required under NSPS Subpart Kb, has not been included in the renewal permit because Subpart Kb no longer requires these records.
- **40 CFR 68 Risk Management Plan:** The stationary source is not subject to the general duty clause under the Clean Air Act Section 112(r)(1) (40 CFR 68.10) because the Red Dog Mine does not process or store regulated flammable or toxic substances in excess of threshold quantities in a process as determined in 40 CFR 68.115.
- **40 CFR 64 Compliance Assurance Monitoring (CAM):** Although pollution control devices are installed to control particulate matter emissions from the coarse ore conveyors, CAM is not applicable. The Department has determined that unrestricted PM emissions for the coarse ore conveyors will be less than 100 tpy per emissions unit and/or the control device is not required to comply with the SIP and/or NSPS Subpart. LL PM limits and/or the control device, especially the wet scrubbers, meet the exemption per 40 CFR 64.2(b)(vi) (i.e., emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method, as defined in 40 CFR 64.1).

STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

The Department adopted regulations from 40 CFR 71, as specified in 18 AAC 50.040(j), to establish operating permit regulations. The EPA fully approved the Alaska Operating Permit Program on November 30, 2001, as noted in Appendix A to 40 CFR 70. This Statement of Basis, required under 40 CFR 71.11(b), provides the legal and factual basis for each condition of Operating Permit AQ0290TVP03. Additionally, and as required by 40 CFR 71.6(a)(1)(i), the state and federal regulations for each permit condition are cited in the permit.

Conditions 1 and 3 through 7, Visible Emissions Standard and MR&R

Legal Basis: These conditions require compliance with the visible emissions standards in 18 AAC 50.055(a).

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, AP-11 through AP-18, MF-1, MC-1, MD-1, MD-4 through MD-11[9], PRC-1 through PRC-11, and MH-5 through MH-8 are fuel-burning equipment or industrial processes.

U.S. EPA approved the addition of these standards to the SIP, as noted in 40 CFR 52.70. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 3 through 7 of the permit. These conditions have been adopted into regulation as part of Standard Permit Condition (SPC) IX. The Department has modified these conditions as follows:

- Moved the last sentence in SPC IX Condition 3 as Condition 3.3 under the lead Condition 3, to facilitate cross-referencing of specific statements.
- Added reference to Condition 3.3 in Condition 3.4a, to clarify an additional exception for the requirement to conduct a First Method 9 observation within six months after the issue date of the renewal permit; i.e., if the Permittee elects to continue visible emissions monitoring schedule from the previous permit.

Except for gas fuel-burning equipment, the Permittee must establish by visual observations that can be supplemented by other means, such as a defined Stationary Source Operation and Maintenance Program that the stationary source is in continuous compliance with the State's emission standards for visible emissions and particulate matter.

These conditions detail a stepwise process for monitoring compliance with the state's visible emissions and particulate matter standards for liquid and gas fired emissions units. Equipment types covered by these conditions are internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

[9] See Note 4 to Table A - Emissions Unit Inventory.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emissions units either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Liquid Fuel-Burning Equipment:

Monitoring – The emissions units must be observed using the Method-9 Plan as detailed in Condition 3.4. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations.

Recordkeeping - The Permittee is required to record the results of all visible emissions observations.

Reporting - The Permittee is required to report emissions in excess of the state visible emissions standard and deviations from permit conditions. The Permittee is also required to include copies of the results of all visible emission observations with the operating report.

Note: For EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, and MG-22 as long as the individual emissions unit does not exceed the applicable rolling 12-month fuel usage or emissions threshold limits in 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 emissions unit for the remainder of the permit term.

For EU IDs MG-27, MG-29, and MH-5 through MH-8, as long as the individual emissions unit does not exceed a significant emission threshold in 18 AAC 50.326(e), 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 emissions unit for the remainder of the permit term.

Dust Emissions Units (EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-4):

The Permittee shall comply with the applicable opacity standards and MR&R requirements specified at Condition 60 (NSPS Subpart LL), as referenced in Condition 1.

Dust Emissions Units (EU IDs MD-5) and the Concrete Batch Plant (EU ID MC-1):

Monitoring – The visible emissions shall be observed using the Method-9 Plan as detailed in Condition 3.4.

Recordkeeping - The Permittee is required to record the results of visible emissions observations.

Reporting - The Permittee is required to report emissions in excess of the state visible emissions standard and deviations from permit conditions. The Permittee is also required to include copies of the results of all visible emission observations with the operating report.

Note: For EU ID MD-5, as long as the emissions unit does not exceed the applicable rolling 12-month fuel usage or emissions threshold limits in Table C as determined in accordance with Condition 26, 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 emissions unit for the remainder of the permit term.

Portable Rock Crushing Operations:

Monitoring – Condition 6 sets out the visible emissions monitoring, recordkeeping and reporting. For PRC-1 through PRC-11, the visible emissions shall be observed according to Condition 6.

Recordkeeping - The Permittee is required to record the results of visible emissions observations according to Conditions 6.1 through 0.

Reporting - The Permittee is required to report the results of visible emissions observations according to Conditions 6.1 through 0.

Asphalt Plant Operations:

Monitoring – Condition 7 requires compliance with the applicable requirements carried forward from Conditions 7 through 9 of Minor Permit AQ0290MSS08 issued 4/14/17. The visible emissions MR&R is applicable to EU IDs AP-11 through AP-15 and AP-17. The Permittee is required to monitor according to Condition 7.1.

Recordkeeping - The Permittee is required to record the results of visible emissions observations according to Condition 7.2.

Reporting - The Permittee is required to report the results of visible emissions observations according to Condition 7.3.

Condition 2, Incinerator Visible Emissions Standard and MR&R

Legal Basis: This visible emissions standard under 18 AAC 50.050(a) applies to the operation of any incinerator in Alaska, including an air curtain incinerator. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and (c)(1).

Factual Basis: For EU IDs MI-2 and MI-3, Condition 2 requires the Permittee to comply with the applicable visible emissions standard in 18 AAC 50.050(a). The Permittee shall not cause or allow the affected incinerator(s) to violate this standard. The Permittee is required to monitor, record, and report according to Condition 2.1.

Conditions 8 through 17, Particulate Matter Standard and MR&R

Legal Basis: These conditions require compliance with the applicable requirement in 18 AAC 50.055(b). These requirements apply to operation of all industrial processes and fuel burning equipment in Alaska.

- 18 AAC 50.055(b)(1) applies to the operation of industrial processes and fuel burning equipment. EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, AP-11 through AP-18, MF-1, MC-1, MD-1, MD-4 through MD-11[10], PRC-1 through PRC-11, and MH-5 through MH-8 are fuel-burning equipment or industrial processes.

[10] See Note 4 to Table A - Emissions Unit Inventory.

The PM standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and (c)(1).

Factual Basis: Condition 8 prohibits emissions in excess of the state particulate matter standard. MR&R requirements are listed in Conditions 12 through 17 of the permit.

The Department did not include Particulate Matter MR&R requirements for EU IDs AP-11 through AP-14 and AP-17 because these units are sources of fugitive dust. These units are subject to visible emissions monitoring in Condition 7. If these units can meet the Visible Emission Standard, it is unlikely EU IDs AP-11 through AP-14 and AP-17 would exceed the particulate matter standard.

The Permittee must establish by visual observations, which can be supplemented by other means such as a defined Operation and Maintenance Program, that the emissions unit is in continuous compliance with the state's emission standards for particulate matter.

Liquid Fuel-Burning Equipment:

Monitoring – The Permittee is required to conduct particulate matter source testing if threshold values for opacity are exceeded.
Recordkeeping - The Permittee is required to record the results of particulate matter source tests.
Reporting - The Permittee is required to report incidents when emissions in excess of the opacity threshold are observed and results of particulate matter source tests. The Permittee is also required to include copies of the results of all visible emission observations taken during particulate matter source testing in the operating report.

For liquid fuel units the MR&R conditions are Standard Permit Condition IX adopted into regulation pursuant to AS 46.14.010(d). Except as discussed below, the Department determined that these standard permit conditions adequately meet the requirements of 40 CFR 71.6(a)(3). The standard permit condition text for Condition 12.2 has a material error. Under the standard language, an owner or operator could assert that an engine with a narrow diameter exhaust stack would need to conduct performance testing only if opacity is between 15 and 20 percent opacity, but not for emissions greater than 20 percent opacity. The Department corrected the material error. Beyond as noted, no emissions unit or stationary source operational or compliance factors indicate that unit specific or stationary source specific conditions would better meet these requirements. Therefore, the Department concluded that the standard permit conditions meet the requirements of 40 CFR 71.6(a)(3).

Note: For EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, and MG-22 as long as the individual emissions unit does not exceed the applicable rolling 12-month fuel usage or emissions threshold limits in Table C, as determined in accordance with Condition 26, monitoring shall consist of an annual statement of compliance with the particulate matter standard based on reasonable inquiry. Otherwise, monitor, record, and report in accordance with Conditions 12 and 13 for that emissions unit for the remainder of the permit term.

For EU IDs MG-27, MG-29, and MH-5 through MH-8, as long as the individual emissions unit does not exceed a significant emission threshold in 18 AAC 50.326(e), monitoring shall consist of an annual statement of compliance with the particulate matter emissions standard

based on reasonable inquiry. Otherwise, monitor, record, and report particulate matter emissions in accordance with Conditions 12 through 14 for that emissions unit for the remainder of the permit term.

Monitoring, recording and reporting for EU IDs AP-16 and AP-18 shall be conducted in accordance with Conditions 15 through 17.

Dust Emissions Units (EU IDs MF-1, MD-1 and MD-4 through MD-11) and the Concrete Batch Plant (EU ID MC-1):

For EU IDs MF-1, MD-1 and MD-4 through MD-11, the Permittee is required to monitor, record, and report in accordance with Condition 18.

For the concrete batch operations (EU ID MC-1), the Permittee is required to monitor, record and report in accordance with Conditions 3, 4, and 5 (Visible Emissions MR&R).

Portable Rock Crushing Operations (EU IDs PRC-1 through PRC-11):

For the portable rock crushing operations (EU IDs PRC-1 through PRC-11), monitor, record and report in accordance with Conditions 24.3 and 24.4, and 97.8 through 97.10.

Condition 19, Sulfur Compound Emissions Standard and MR&R

Legal Basis: This condition requires the Permittee to comply with the sulfur compound emissions standard under 18 AAC 50.055(c).

- 18 AAC 50.055(c) applies to the operation of fuel burning equipment and industrial processes. EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, MF-1, and MH-5 through MH-8 are fuel-burning equipment or industrial processes.

The sulfur compound standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and (c)(1).

Factual Basis: The Permittee may not cause or allow the affected equipment to violate the applicable sulfur compound standard. Sulfur dioxide comes from the sulfur in the fuel (e.g. coal, natural gas, fuel oils).

Liquid Fuels: For oil-fired fuel burning equipment, the MR&R conditions are Standard Permit Conditions XI and XII adopted into regulation pursuant to AS 46.14.010(e).

The Department used fuel grades of 0.45% by weight sulfur for all EU IDs other than AP-15, AP-16, and AP-18, as stated below. Also, the Department added MR&R for the 0.15% annual average fuel sulfur ambient air quality standard because the ambient condition cross-referenced Condition 19's MR&R.

Conditions 20 through 39, Preconstruction Permit Requirements (Ambient Air Quality Standards, Maximum Allowable Ambient Concentrations, BACT Limits and Owner Requested Limits (ORLs))

Legal Basis: The Permittee is required to comply with all stationary source-specific requirements that were carried forward from previous SIP-approved Permits to Operate issued on or before January 17, 1997 and operating permits issued between January 18, 1997

and September 30, 2004, and with all stationary source-specific requirements in EPA PSD permits, SIP-approved construction permits, SIP-approved minor permits, and owner requested limits established under 18 AAC 50.225. These requirements include Best Available Control Technology (BACT) limits, limits to ensure compliance with the attainment or maintenance of ambient air quality standards or maximum allowable ambient concentrations, and owner requested limits. Requirements from the permits listed above apply because they were originally developed through case-by-case action under a federally approved SIP or approved operating permit program.

Factual Basis: Condition 20 requires that the Permittee report malfunctions or non-operation of recording devices. This requirement was carried forward from PTO 9332-AA003 Amendment 2 (12/4/1996).

Condition 21 requires that the Permittee report any pollution control equipment breakdowns for the asphalt batch plant (EU ID AP-15), This requirement was carried forward from Minor Permit AQ0290MSS08, effective 4/14/17.

Condition 22 (Ambient Air Quality Standards, Maximum Allowable Ambient Concentrations). This condition ensures that allowable emissions from the stationary source and associated growth will not cause an ambient concentration at any location that does not or would not meet the ambient air quality standard or maximum allowable ambient concentration respectively specified at 18 AAC 50.010 or Table 3 of 18 AAC 50.020.

Condition 22 requires that the Permittee comply with the requirements of the Public Access Control Plan found in Section 4 (Conditions 41 - 44). This requirement was carried forward from Construction Permit 9932-AC005 Rev. 2, effective 7/16/03 and Minor Permit AQ0290MSS05, effective 6/9/06.

For PSD Avoidance and ambient air quality increment purposes, Condition 23 contains Sulfur Dioxide Requirement that limit the sulfur content of liquid fuel combusted in all fuel oil-burning emissions units listed in Table A to 0.45 percent by weight at any time and 0.16 percent averaged over the most recent 12 consecutive months. For ambient air quality, this condition cross-references Condition 19 for MR&R.

Condition 24 contains Fugitive Particulate Matter Requirements carried forward from Construction Permit 9932-AC005 Rev. 2, effective 7/16/03 and Minor Permit AQ0290MSS06 Rev. 1, effective 5/5/09 and applies to the mine roads, EU ID MF-5, and the portable rock crushing plant, EU IDs PRC-1 through PRC-11.

Condition 25 contains BACT Limits. On December 10, 1999, Construction Permit 9932-AC005 became effective. This permit was subsequently revised twice, on June 10, 2003 and July 16, 2003. The Department made BACT determinations for the heater group, and small engines in 1999 for the “Production Rate Increase” Construction Permit 9932-AC005. BACT limits for Source EU IDs MG-19, MG-20 were established as part of Revision 1 to the construction permit. According to information contained in the Construction Permit 9932-AC005, Revision 2, the BACT limits for the Wärtsilä Generators, MG-1, MG-3, and MG-4 originate from the BACT limits contained in the original 1988 PSD permit 8732-AA009. The Wärtsilä Generators’ limits were removed in a 1994 permit action and subsequently, re-imposed as part of Revision 2 to 9932-AC005. For Condition 25.4b the underlying requirement from Permit to Operate 9932-AC005 Rev 2 is ambiguous as to “how much” EU

ID MI-3 must operate each month of every 6-month period to trigger a PM source test. In order to resolve the ambiguity, the Department added Condition 25.4b(ii) with the intent to ensure that no more than 1 test each calendar year is conducted if triggered, or at least one test during the effective period of the permit.

The requirements of Condition 22.1.b, Permit No. 9932-AC005 Rev 2, 7/16/03 have been fulfilled. The SCR has been installed and EU ID MG-17 was first source tested in 2004 and again in 2005.

The Department requires MR&R as set out in Condition 25 to ensure units comply with their BACT limit. The Permittee may test one of each group every five years unless the units trigger increased source testing.

Conditions 26 through 37 (ORLs). Throughout the permitting history of this source, the Permittee has requested that Owner Requested Limits (ORLs) be included in the permit to keep the facility's increase in potential emissions of CO, NO_X, SO_2, and PM to avoid a PSD review under 18 AAC 50.306 and/or a minor permit under 18 AAC 50.502.

In addition to ORLs established in prior minor and construction permits, the Permittee requested Condition 26 as an ORL during preparation of initial operating permit AQ0290TVP01. The affected emissions units (EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, MG-22, MD-1, and MD-4 through MD-6) are subject to operational restrictions in order to meet BACT limits and to avoid PSD classification under 18 AAC 50.300(h)(3). This notwithstanding, Condition 26.3b requires certification that the units did not exceed state emission standards during the previous year and did not emit any prohibited air pollution. If the units do not exceed the fuel usage and PM emission limits stated in Condition 26, the units are considered insignificant units only with respect to 18 AAC 50.326(e) and no further monitoring is required under the operating permit in accordance with Department Policy and Procedure No. AWQ 04.02.103, Topic # 3, 10/8/04 for standby emissions units (Note: The Permittee must still comply with the applicable NSPS Subpart LL (EU IDs MD-1 through MD-4, and MD-6) and NESHAP, Subpart ZZZZ (EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, and MG-22) requirements provided at Condition 60.)

Condition 27 is an ORL carried forward from Construction Permit 0032-AC018 Rev. 1 that limits the simultaneous operation of the larger diesel generators and imposes a pound per hour CO emission limit; and limits operation of EU ID MG-18, with the intention of limiting CO emissions to avoid a PSD review. The Department imposed MR&R to ensure each unit type complies with the CO limit modeled after Condition 25.

Condition 28 limits SO_2 emissions from the source to avoid a PSD review by complying with the requirements of Condition 19. These requirements were originally established in Construction Permit 0032-AC018 Rev.1 and Construction Permit 9932-AC005 Rev. 2. MR&R is cross-referenced from Condition 19.

Condition 29 is an ORL to avoid PSD review for NOx by limiting NOx emissions from EU ID MG-18 (Condition 29.1) and operating hours of EU ID MXG-101 (Condition 29.2). Condition 29.1 was established in Construction Permit 0032-AC018 Rev.1 (November 26, 2002) and is therefore an applicable requirement. Compliance is demonstrated by complying with the more restrictive ORL in Condition 31. Condition 29.2 is carried forward from Minor

Permit AQ0290MSS06 Revision 1 (May 5, 2009) and compliance is demonstrated by monitoring annual operating hours for EU ID MXG-101.

Condition 30 is an ORL to avoid PSD review by limiting NOx emission rates from EU IDs MG-1 through MG-6 and MG-17; and for PSD BACT, the installation and operation of Selective Catalytic Reduction (SCR) control for NOx emissions control of MG-17 based on EPA's CAA Part 168 order. Recurring NOx and ammonia source testing of EU ID MG-17 is required to demonstrate compliance with the short-term emission limits under this condition. The Department added a NOx emission factor for MG-18 assuming a fully operational SCR emission control system. Per 40 CFR 71.6(a)(1)(i), Condition 30.1 is identified in the permit as being different in form as compared to the applicable requirement in Construction Permit 9932-AC005 Rev 2, 7/16/03.

Condition 31 is an ORL to avoid PSD review by limiting NOx emissions from EU ID MG-18, by requiring installation of SCR control prior to the mill expansion becoming fully operational. Recurring NOx source testing of EU ID MG-18 after the SCR system is fully operational is required to demonstrate compliance with the short-term emission limits under this condition. An ammonia emission limit is not required for PSD avoidance and ammonia modeling for the ammonia slip was not triggered under minor permit regulations. Teck conducted an ambient air quality analysis in support of SCR installation on EU ID MG-17 and results appear in the technical analysis report for Construction Permit 9932-AC005 Rev 2, July 16, 2003. The maximum eight-hour ammonia impact was well below the ambient standard of 2.1 mg/m^3.

To avoid PSD review for particulate matter (PM), the Permittee shall comply with the requirements in Condition 32 to limit PM emissions from EU IDs MG-1 through MG-6 and MG-18. PM Recurring Testing is required to demonstrate compliance with the short-term PM limits under this condition.

Condition 33 limits the hours of operation for EU IDs MD-7 and MD-8 in order to avoid PSD Classification and Minor Permit Classification for particulate matter under 18 AAC 50.502(c)(3). In addition, MR&R includes weekly readings of pressure differential across the bags in the baghouse, and corrective action/maintenance as recommended by the manufacturer as needed.

Condition 34 limits the sulfur content of fuel combusted in EU ID MXG-101 to no more than 0.16 percent by weight per 12 consecutive month period in order to avoid classification under 18 AAC 50.502(c)(3)(A)(ii). The Permitted shall demonstrate compliance with this ORL by complying with the MR&R requirements of Condition 19.

Condition 35 limits the operation of EU IDs MD-11, MD-12, and MD-13 to no greater than 5,000 hours each, in any consecutive 12-month period in order to avoid PSD review for direct $PM_{2.5}$. This ORL was carried forward from Minor Permit AQ0290MSS09, effective 5/3/18.

Condition 36 limits the emissions of NOx, CO, PM, PM_{10}, $PM_{2.5}$, and SO_2 from EU IDs AP-11 through AP-15 and AP-17 to less than that the permitting thresholds under 18 AAC 50.502(c)(3) and 40 CFR 52.21(b)(23)(i). This requirement was carried forward from Minor Permit AQ0290MSS08, effective 4/14/17.

Condition 37 limits the operation of each of EU IDs AP-19 and AP-20 to no more than 720 hours per 12-month rolling period in order to avoid the requirement to conduct an Ambient Air Quality Analysis under 18 AAC 50.540(c)(2).

Condition 38 limits the non-emergency operation of EU ID MG-29 to no more than 4,550 hours per consecutive 12-month period in order to avoid minor permitting under 18 AAC 50.502(c)(3). This requirement was carried forward from Minor Permit AQ0290MSS13, effective MM/DD/2023.

Condition 39 limits the HAP emissions from EU ID MF-6 by requiring the Permittee to use ethanol and/or brine[11] as freeze protection in place of methanol.

Condition 40, Insignificant Emissions Units

Legal Basis: The Permittee is required to meet the state emission standards in 18 AAC 50.055 for all industrial processes fuel-burning equipment and 18 AAC 50.055(a) for incinerators regardless of size. As previously noted, 18 AAC 50.050(a) and 50.055 are contained in the federally approved SIP. The Department also added permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC V for the permit condition. The condition requires insignificant emissions units to comply with the state emissions standards for visible emissions, particulate matter emissions, and sulfur compound emissions. Insignificant emissions units are generally not listed in the permit unless specific monitoring, recordkeeping and reporting are necessary to ensure compliance. The Permittee may not cause or allow insignificant emissions units to violate these standards whether or not they are listed in the permit.

Conditions 41 through 44, Public Access Control Plan and General Requirements for Ambient Air Quality Protection

Legal Basis: Conditions 41 through 44 apply because they are carried forward from an applicable preconstruction permit.

Factual Basis: These ambient air protection requirements are carried forward from Construction Permit 9932-AC005 Rev. 2, issued July 16, 2003. The Public Access Control Plan is required because of the hazardous nature of the activities at the stationary source and predicted exceedances of ambient air quality standards and increments within the source boundary.

Condition 45, National Ambient Air Quality Standard (NAAQS) Requirements for Lead

Legal Basis: Under 40 CFR 58.10, the Department is required to submit a plan to EPA for establishing source-oriented lead monitoring sites for sources that emit 0.5 tpy or more of lead. Condition 45 applies because the Red Dog Mine has the potential to emit 4.75 tons of lead per year. EPA may waive the monitoring requirements if a modeling analysis can demonstrate that the lead source will not contribute to a maximum ambient air concentration in excess of 50 percent of the NAAQS (i.e. 0.075 micrograms per cubic meter). The

[11] Brine fluids attain their densities from dissolved inorganic salts. They can be composed of one or more of the following salts: NH_4Cl, NaCl, NaBr, HCOOK, $CaCl_2$, $CaBr_2$, and $ZnBr_2$.

Department and Teck expect to work cooperatively to fulfill the requirements needed to submit the modeling analysis in a timely fashion.

Factual Basis: Condition 45 requires that Teck provide any information necessary to submit lead monitoring waiver requests to EPA. The waiver must be renewed once every 5 years as part of the state's network assessment required under 40 CFR 58.10(d).

Conditions 46 through 54, NSPS Subpart A Requirements

Legal Basis: The EPA approved Alaska's Part 70 Program granted on November 30, 2001 (40 CFR 70 Appendix A). The Department is the permitting authority for the Part 70 program. As the permitting authority, the Department requires compliance with all permit conditions. Although the EPA has not delegated to the Department the authority to administer the New Source Performance Standard (NSPS) program, NSPS requirements are included in the definition for "applicable requirement" under 40 CFR 71.2, which has been adopted by the Department under 18 AAC 50.040(j)(1).

The NSPS provisions under Subparts Dc, I, O, LL, OOO, and IIII apply to the stationary source. Therefore, the Department requires compliance with those standards in a Part 70 permit issued under the approved program. However, the Department is unable to change the actual wording of the relevant standard to substitute "the Department" for "the Administrator" in those standards. Since the Department expects access to any permit-related information provided by the Permittee to the EPA, the Department will act on its responsibility as the permitting authority to determine compliance with the standard. To reflect this relationship and for the purposes of this permit, the Department has defined "the Administrator" to mean the "EPA and the Department" for conditions implementing the federal emission standards under Section 5.

Most affected facilities (with the exception of some storage tanks) subject to an NSPS are subject to Subpart A. At this stationary source, EU IDs AP-11 through AP-15 and AP-17 are subject to NSPS Subpart I, EU IDs MD-1 through MD-4, MD- 6 through MD-10 and MF-4 are subject to NSPS Subpart LL, EU IDs PRC-2 through PRC-11 are subject to NSPS Subpart OOO, and EU IDs MG-27 through MG-29 are subject to NSPS Subpart IIII; therefore, these affected facilities are subject to Subpart A.

Condition 46 - The Permittee has already complied with the initial notification requirements in 40 CFR 60.7(a)(1) and (3) for EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-4. However, the Permittee is subject to 40 CFR 60.7(a)(1), (a)(3), and/or (a)(4) in the event of a new NSPS affected facility[12] or in the event of a modification or reconstruction of an existing facility[13] into an affected facility.

For EU IDs MG-27 and MG-28, which are emergency stationary ICE, the Permittee is not required to submit an initial notification under NSPS Subpart IIII per 40 CFR 60.4214(b).

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

[13] *Existing facility* means, with reference to a stationary source, any apparatus of the type for which a New Source Performance Standard (NSPS) is promulgated, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type, as defined in 40 CFR 60.2.

The notification requirement in 40 CFR 60.7(a)(1) is waived for EU IDs PRC-2 through PRC-11 per 40 CFR 60.676(h) (see Condition 65.2).

Condition 46.7 - The requirements to notify the Administrator of any proposed replacement of components of an existing facility (40 CFR 60.15) apply in the event that 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.

Condition 47 – Start up, shutdown, or malfunction record maintenance requirements in 40 CFR 60.7(b) are applicable to all NSPS affected facilities subject to Subpart A.

Conditions 48 and 49 - NSPS excess emission reporting requirements and summary report form in 40 CFR 60.7(c) & (d) are applicable to EU ID(s) MD-2 or MD-3. The Department has included in Section 16 a copy of the Federal EEMSP summary report form for use by the Permittee.

Condition 50 - The Permittee is subject to testing requirements in the event of a new NSPS affected facility, in the event of a modification or reconstruction of an existing facility into an affected facility or at such other times as may be required by EPA.

Condition 51 - Good air pollution control practices in 40 CFR 60.11 are applicable to all NSPS affected facilities subject to Subpart A (EU IDs MD-1 through MD-4, MD-6 through MD-10, MF-4, and PRC-2 through PRC-11).

Condition 52 - States that any credible evidence may be used to demonstrate compliance or establishing violations of relevant NSPS standards for EU IDs MD-1 through MD-4, MD-6, MD-9, MF-4, and PRC-2 through PRC-11.

Condition 53 - Concealment of emissions prohibitions in 40 CFR 60.12 are applicable to EU IDs MD-1 through MD-4, MD-6, MD-9, MF-4, and PRC-2 through PRC-11.

Condition 54 - Monitoring requirements in 40 CFR 60.13 are applicable to EU IDs MD-2 and MD-3 because a CMS is used to determine compliance with Subpart LL wet scrubber operating parameter requirements.

Factual Basis: Subpart A contains general requirements applicable to all affected facilities (emissions units) subject to NSPS. In general, the intent of NSPS is to provide technology-based emission control standards for new, modified and reconstructed affected facilities.

Conditions 55 through 57, NSPS Subpart Dc Requirements

Legal Basis: NSPS Subpart Dc applies to steam generating units for which construction, modification, or reconstruction, commenced after June 9, 1989 and have maximum design heat input capacities of 29 MW (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). EU IDs MH-6 through MH-8 are subject to Subpart Dc.

Factual Basis: This condition requires the Permittee to comply with the applicable NSPS Subpart Dc requirements. The Permittee may not cause or allow EU IDs MH-6 through MH-8 to violate these standards.

Conditions 58, NSPS Subpart I Requirements

Legal Basis: NSPS Subpart I applies to hot mix asphalt facilities whose construction, reconstruction, or modification commences after June 11, 1973. EU IDs AP-11 through AP-15, and AP-17 are subject to Subpart I.

Factual Basis: This condition incorporates the Subpart I particulate matter and opacity standards, test methods and procedures. The Permittee may not cause or allow EU IDs AP-11 through AP-15 and AP-17 to violate these standards.

Condition 59, NSPS Subpart O

Legal Basis: NSPS Subpart O applies to incinerators that were constructed or modified after July 11, 1973 and combust wastes containing more than 10 percent sewage sludge (dry basis) produced by municipal sewage treatment plants, or that combust more than 1000 kg (2205 lb) per day municipal sewage sludge (dry basis).

Factual Basis: This condition includes only the exemption requirements because EU IDs MI-2 and MI-3 do not combust more than 10 percent sewage sludge (dry basis) or more than 1000 kg (2205 lb) per day sewage sludge (dry basis). The Permittee is required to keep records of the weight of dry sewage sludge and the weight of all other fuels and wastes combusted in the incinerators on a daily basis. These records must be included with each operating report.

Teck maintains that the incinerators do not incinerate sewage sludge because the mine does not operate a sewage treatment process. Teck requested that this condition be removed from the permit, however, EPA disagrees and has determined that a grit/coarse screening incinerator is subject to NSPS Subpart O based on the June 11, 1973, Federal Register definitions of sewage and sewage sludge. Even though the definitions were removed when the regulation was promulgated, EPA believes the original definitions supply the intent of the final promulgation.

Condition 60, NSPS Subpart LL Requirements

Legal Basis: The Permittee shall comply with the applicable provisions of 40 CFR 60, Subpart LL – Standards of Performance for Metallic Mineral Processing Plants as the standards apply to the Primary Jaw Crusher Baghouse (EU ID MD-1), the #1 Coarse Ore Conveyor A Wet Scrubber (EU ID MD-2), the #2 Coarse Ore Conveyor B Wet Scrubber (EU ID MD-3), the Assay Lab Bucking Room Baghouse (EU ID MD-4), the Gyratory Crusher Baghouse (EU ID MD-6), the Jaw Crusher Dump Pocket Baghouse (EU ID MD-7), the Gyratory Crusher Dump Pocket Baghouse (EU ID MD-8), the Coarse Ore Storage Building Baghouse (MD-9), the Concentrate Storage Building Baghouse (MD-10), the Mine Concrete Storage Building and the truck loading station doors and vents (EU ID MF-4).

- EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-4, fall within this category and are therefore subject to Subpart LL.

Note: In accordance with AQ0290MSS02, the Permittee installed EU IDs MD-7 and MD-8 as respective baghouse particulate matter emissions controls for EU IDs MF-2 and MF-3. While EU IDs MF-2 and MF3 are the listed emission points in Table 1 (Source Inventory) of AQ0290TVP01, this renewal permit refers to EU IDs MD-7 and MD-8 as the emission points in place of MF-2 and MF-3, respectively.

Factual Basis: This condition incorporates the Subpart LL particulate matter and opacity standards. The Permittee may not cause or allow EU IDs MD-1 through MD-4, MD-6 through MD-10, and MF-4 to violate these standards. In accordance with 40 CFR 71, particulate matter and opacity recurring testing has been included in the permit to periodically demonstrate compliance with the PM and opacity limits. In addition, monitoring of the wet scrubber operations associated with EU IDs MD-2 and MD-3 is required. The Permittee must comply with reporting and recordkeeping requirements pursuant to 40 CFR 60.385(a) - (d).

Conditions 61 through 65, NSPS Subpart OOO Requirements

Legal Basis: NSPS Subpart OOO applies to nonmetallic mineral processing plants whose construction, reconstruction, or modification commences after August 31, 1983. EU IDs PRC-2 through PRC-11 are subject to Subpart OOO.

Factual Basis: The conditions require the Permittee to comply with the Subpart OOO fugitive particulate matter standards (as opacity limits). The Permittee may not cause or allow EU IDs PRC-2 through PRC-11 to violate these standards. The Permittee shall perform monitoring, record keeping and reporting as specified in Conditions 63 and 65 to demonstrate ongoing compliance with the opacity limits.

Conditions 66 through 69, NSPS Subpart IIII Requirements

Legal Basis: NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CI ICE) that commence construction, modification, or reconstruction after July 11, 2005 where the stationary CI ICE are manufactured after April 1, 2006 for non-fire pump engines and after July 1, 2006 for certified fire pump engines. EU IDs MG-27 through MG-29 are subject to Subpart IIII under 40 CFR 60.4200 because they are stationary CI ICE constructed after July 11, 2005 and manufactured after April 1, 2006. EU IDs MG-27 and MG-28 are emergency engines, MG-29 is non-emergency. While EU ID MXG-101 was constructed after the rule applicability date, the unit is a nonroad engine and is not subject to this rule.

Factual Basis: These conditions incorporate the Subpart IIII emissions standards applicable to EU IDs MG-27 through MG-29. The Permittee may not cause or allow EU IDs MG-27 through MG-29 to violate these standards. These conditions also provide MR&R specifically called for within the subpart. The Permittee is required to operate and maintain the stationary CI ICE according to the manufacturer's written instructions.

For EU IDs MG-27 through MG-29, the Permittee shall certify that the emission standards for new nonroad CI engines in 40 CFR 60.4205 or 60.4204 (respectively) are met, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency or nonemergency stationary CI ICE. The engines must be installed and configured according to the manufacturer's specifications. The Permittee shall meet the applicable fuel requirements in 40 CFR 60.4207.

For EU ID MG-27 and MG-28, if the emergency stationary CI internal combustion engine does not meet the standards applicable to non-emergency engines, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of

operation of the engine and the reason the engine was in operation during that time.

Conditions 70 through 73, NESHAP Subpart A Requirements

Legal Basis: The Permittee must comply with applicable National Emission Standards for Hazardous Air Pollutants (NESHAP). NESHAP requirements are included in the "applicable requirement" definition under 40 CFR 71.2, which has been adopted under 18 AAC 50.040(j)(1). The Permittee must also comply with applicable NESHAP Subpart A requirements in Condition 73 when conducting performance tests on non-emergency engines, EU IDs MG-1 through MG-6, MG-17, and MG-18 per NESHAP Subpart ZZZZ.

Most facilities subject to NESHAP requirement are subject to Subpart A. At this stationary source, EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, and MG-27 and MG-28 are subject to NESHAP Subpart ZZZZ and therefore are subject to Subpart A. As an area source of HAP emissions, EU ID MH-5 is subject to NESHAP Subpart JJJJJJ and therefore subject to NESHAP Subpart A.

Factual Basis: Subpart A contains general requirements applicable to all facilities and emissions units subject to NESHAP requirements. In general, the intent of NESHAP is to regulate specific categories of stationary sources that emit or have the potential to emit one or more hazardous air pollutants.

The Department has included general provision requirements under 40 CFR 63.1(c)(6) and 63.9(j) because the stationary source was reclassified from a HAP major source to a HAP area source during this permit term.

Conditions 74 through 78, NESHAP Subpart ZZZZ Requirements

Legal Basis: The Department has incorporated by reference the NESHAP requirements for specific industrial activities as listed in 18 AAC 50.040(c). NESHAP Subpart ZZZZ applies to owners and operators of any existing, new, or reconstructed stationary reciprocating internal combustion engine (RICE), whose construction commenced before June 12, 2006, located at major and area sources of HAP emissions, excluding stationary RICE units being tested at a stationary RICE test cell/stand. Red Dog Mine owns and operates RICE units subject to NESHAP Subpart ZZZZ.

Factual Basis: Because NESHAP Subpart ZZZZ is applicable to both major and area sources of HAP emissions, there are requirements applicable before and after Red Dog Mine's reclassification. After the reclassification, EU IDs MG-7 through MG-9 will be considered existing emergency RICE and will be subject to operational and maintenance requirements.

As an area source of HAP emissions, the stationary source is subject to provisions of NESHAP Subpart ZZZZ under 40 CFR 63.6590(a)(1)(iii) for existing RICE whose construction commenced before June 12, 2006, and under 40 CFR 63.6590(a)(2)(iii) for new RICE whose construction commenced on or after June 12, 2006.

In accordance with 40 CFR 63.6590(a)(2)(ii), EU ID MG-27 and MG-28 are considered new stationary RICE because they were constructed after June 12, 2006. EU IDs MG-27 and MG-28 are new emergency RICE. For EU IDs MG-27 and MG-28, the Permittee must meet the requirements 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart

IIII. No further requirements apply to MG-27 under Subpart ZZZZ. The Permittee is required to submit initial notifications for EU IDs MG-28, and MG-29 under Subpart ZZZZ.

For EU IDs MG-1 through MG-6, MG-11, MG-17 through MG-20 and MG-22, the Permittee must comply with 40 CFR 63, Subpart ZZZZ no later than May 3, 2013.

Upon becoming a HAP area source, EU IDs MG-1 through MG-6, MG-17, and MG-18 will no longer be subject to a numerical emission limit and will no longer be subject to a requirement to install a continuous parameter monitoring system, per 40 CFR 63.6603(b)(1). Instead, these emissions units will be subject to the applicable 40 CFR 63 Subpart ZZZZ Table 2d management practices that are applicable to stationary non-emergency CI RICE with a site rating of less than or equal to 300 horsepower (hp).

EU IDs MG-11, MG-19, MG-20, and MG-22 are existing stationary emergency RICE, each with a site rating of less than 500 hp. These units are not subject to a numerical emission limit. After the stationary source becomes an area source, EU IDs MG-7 through MG-9 will become non-emergency stationary generator engines and will no longer be subject to the operational limits under 40 CFR 63.6640(f).

For EU IDs MG-11, MG-19, MG-20 and MG-22, the Permittee must comply with the installation and maintenance requirements and good air pollution control practices of 40 CFR 63.6605 and/or 40 CFR 63.6625(e) as well as the requirement to install a non-resettable hour meter in 40 CFR 63.6625(f), if one is not already installed. To retain the designation of emergency engine under the NESHAP Subpart ZZZZ, EU IDs MG-11, MG-19, MG-20 and MG-22 must not exceed non-emergency operations over 100 hours per calendar year. There is no limit on emergency operation. However, if the 100 hour limit is exceeded the Permittee must comply with the work practice and emission limitations under Subpart ZZZZ. The Permittee has designated EU IDs MG-11, MG-19, MG-20 and MG-22 as emergency RICE. In accordance with 40 CFR 63.6640(f)(1), if any of EU IDs MG-7 through MG-9, MG-11, MG-19, MG-20, and MG-22 fails to meet the requirements for "emergency RICE", the Permittee shall operate the engine as non-emergency and comply with the corresponding requirements for non-emergency units under Subpart ZZZZ for the rest of the life of the permit term.

For MG-1 through MG-6, MG-17 and MG-18, an initial performance test or other initial compliance demonstration and the associated required test notifications and reports must be completed according to the deadlines and requirements of 40 CFR 63.6610, 63.6612. Subsequent performance testing and compliance demonstration, test notification and reports must be completed in accordance with the requirements of 40 CFR 63.6615.

Note: MXG-101, identified as a nonroad engine, is not subject to 40 CFR 63, Subpart ZZZZ.

Conditions 79 through 82, NESHAP Subpart JJJJJJ Requirements

Legal Basis: NESHAP Subpart JJJJJJ applies to owners and operators of industrial, commercial, or institutional boilers as defined in 40 CFR 63.11237 that are located at, or are part of, an area source of HAP emissions. These requirements are included in the permit because the stationary source intends to reclassify itself as an area source. When Red Dog Mine begins operating as an area source, EU ID MH-5 will be subject to the provisions of NESHAP Subpart JJJJJJ under

40 CFR 63.11194(a)(1) and (b) for existing boilers whose construction or reconstruction commenced on or before June 4, 2010.

Conditions 79 through 82 include applicable requirements for an existing oil-fired boiler with a heat input capacity of equal to or less than 5 MMBtu/hr. As such, EU ID MH-5 is subject to an initial tune-up followed by a tune-up every 5 years. Initial and continuous compliance demonstration, notifications, recordkeeping, and reporting requirements are as provided in Conditions 79 through 82.

Condition 83, Asbestos NESHAP

Legal Basis: The requirements of 40 CFR 61 are applicable requirements for Title V permitting purposes, as stated in item 4 of the "applicable requirement" definition under 40 CFR 71.2. The condition requires the Permittee to comply with asbestos demolition or renovation requirements in 40 CFR 61, Subpart M and associated general provisions under Subpart A, as adopted by reference under 18 AAC 50.040(b)(1) and (2)(F). The asbestos demolition and renovation requirements apply if the Permittee engages in asbestos demolition or renovation.

Factual Basis: Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to ensure compliance with these federal regulations.

Conditions 84 through 86, Protection of Stratospheric Ozone, 40 CFR 82

Legal Basis: The requirements of 40 CFR 82 are applicable requirements for Title V permitting purposes, as stated in item 12 of the "applicable requirement" definition under 40 CFR 71.2. Condition 84 requires compliance with the applicable requirement in 40 CFR 82, as adopted by reference under 18 AAC 50.040(d). The requirements apply if the Permittee engages in the recycling or disposal of certain refrigerants. The condition requires the Permittee to comply with the standards for recycling and emission reduction of refrigerants in 40 CFR 82, Subpart F.

Conditions 85 and 86 prohibitions apply to all stationary sources that use Halon for extinguishing fires and inert gas to reduce explosion risk. These conditions prohibit the Permittee from causing or allowing violations of these prohibitions. The Red Dog Mine uses Halon and is therefore subject to the federal regulations contained in 40 CFR 82.

Factual Basis: These conditions incorporate applicable 40 CFR 82 requirements. Because these regulations include adequate monitoring and reporting requirements and because the Permittee is not currently engaged in such activity, simply citing the regulatory requirements is sufficient to require compliance with this federal regulation. The Permittee may not cause or allow violations of these prohibitions.

Condition 87, NESHAP Applicability Determinations

Legal Basis: This condition requires the Permittee to determine rule applicability of NESHAP and requires record keeping for those determinations if required by the source classification.

Factual Basis: The Permittee has conducted an analysis of the stationary source and determined that, when operating in accordance with Condition 39, it is an area source of HAP emissions.

Condition 88, NSPS and NESHAP Reports

Legal Basis: The Permittee is required to provide the Federal Administrator and Department a copy of each emissions unit report for units subject to NSPS or NESHAP federal regulations under 18 AAC 50.326(j)(4). 40 CFR 70, Appendix A documents that EPA fully approved the Alaska operating permit program effective November 30, 2001.

Factual Basis: The condition supplements the specific reporting requirements in 40 CFR 60, 40 CFR 61, and 40 CFR 63. The reports themselves provide monitoring for compliance with this condition.

Conditions 89 through 91, Standard Terms and Conditions

Legal Basis: These are standard permit conditions required for all operating permits under 18 AAC 50.345(a) and (e)–(g). As stated in 18 AAC 50.326(j)(3), the standard permit conditions of 18 AAC 50.345 replace the provisions of 40 CFR 71.6(a)(5)–(7).

Factual Basis: These are standard permit conditions that apply to all permits.

Condition 92, Administration Fees

Legal Basis: This condition requires compliance with the applicable fee requirements in 18 AAC 50.400-403. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: Paying administration fees is required as part of obtaining and holding a permit with the Department or as a fee for a Department action. The regulations in 18 AAC 50.400-403 specify the amount, payment period and the frequency of fees applicable to a permit action.

Conditions 93 and 94, Emission Fees

Legal Basis: These conditions require compliance with the applicable fee requirements in 18 AAC 50.410-420. The regulations specify the time period for the assessable emissions and the methods the Permittee may use to calculate assessable emissions. As stated in 18 AAC 50.326(j)(1), the provisions of 18 AAC 50.400 through 50.430 are applicable and 40 CFR 71.9 is not applicable.

Factual Basis: The Department used the language in SPC I, adopted by reference under 18 AAC 50.346(b), but updated the submittal instructions. SPC I requires the Permittee to pay fees in accordance with the Department's billing regulations. The billing regulations set the due dates for payment of fees based on the billing date.

The assessable emissions are the lesser of the stationary source's potential or projected emissions of each air pollutant at 10 tons per year or greater (AS 46.14.250(h)(1)).

SPC I allows the Permittee to recalculate the stationary source's assessable emissions based on previous actual annual emissions. According to AS 46.14.250(h)(1), assessable emissions are based on each air pollutant. Therefore, fees shall be paid on any pollutant emitted whether or not the permit contains any limitation for that pollutant.

This standard permit condition specifies that, unless otherwise approved by the Department, calculations of assessable emissions must be based on actual emissions for the previous calendar year. Since each current year's assessable emission are based on the previous year, the Department will not give refunds or make additional billings at the end of the current year if the estimated emissions and current year actual emissions do not match.

Condition 95, Good Air Pollution Control Practice

Legal Basis: This condition requires compliance with the requirements in 18 AAC 50.346(b)(5) and applies to all emissions units, **except** those subject to an emission standard in 40 CFR 60, 61, or 63, those subject to continuous emission or parametric monitoring requirements, and insignificant emissions units.

Factual Basis: The condition requires the Permittee to comply with good air pollution control practices for all emissions units.

The Department adopted this condition under 18 AAC 50.346(b) as Standard operating Permit Condition VI pursuant to AS 46.14.010(e). Records kept in accordance with Condition 95.1b for units previously subject to GAPCP need to be maintained for 5 years in accordance with Condition 113 even if a unit is no longer subject to this condition.

Maintaining and operating equipment in good working order is fundamental to preventing unnecessary or excess emissions. Standard permit conditions for monitoring compliance with emission standards are based on the assumption that good maintenance is performed. Without appropriate maintenance, equipment can deteriorate more quickly than with appropriate maintenance. If appropriate maintenance is not applied to the equipment, the Department may have to apply more frequent periodic monitoring requirements (unless the monitoring is already continuous) to ensure that the monitoring results are representative of actual emissions.

The Permittee is required to keep maintenance records to show that proper maintenance procedures were followed and to make the records available to the Department. The Department may use these records as a trigger for requesting source testing if the records show that an adequate maintenance schedule is not maintained.

Condition 96, Dilution

Legal Basis: This condition reiterates 18 AAC 50.045(a), which prohibits the Permittee from using dilution as an emission control strategy. 18 AAC 50.045(a) is in the SIP approved by EPA and is therefore an applicable requirement per 40 CFR 71.2.

Factual Basis: The condition prohibits the Permittee from diluting emissions as a means of compliance with any standard in 18 AAC 50.

Condition 97, Reasonable Precautions to Prevent Fugitive Dust

Legal Basis: This condition reiterates 18 AAC 50.045(d), which requires a person to use reasonable precautions when handling, storing or transporting bulk materials or engaging in an industrial activity. 18 AAC 50.045 is included in the SIP approved by EPA and is therefore an applicable requirement per 40 CFR 71.2.

This requirement applies because the Permittee has an emissions unit or activity listed under Table 7 of 18 AAC 50.346(c). The listed emissions units and activities in Table 7 are: coal-

fired boilers; coal handling facilities; construction of gravel pads or roads that are part of a permitted stationary source or other construction that has the potential to generate fugitive dust that reaches ambient air; commercial/industrial/municipal solid waste, air curtain, and medical waste incinerators; sewage sludge incinerators not using wet methods to handle that ash; mines; urea manufacturing; soil remediation units; or dirt roads under the control of the operator with frequent vehicle traffic.

Factual Basis: The Department used the language in SPC X for the permit. The condition requires the Permittee to take reasonable action to prevent particulate matter from being emitted into the ambient air in accordance with 18 AAC 50.045(d).

The Department has also included in those requirements in Condition 97 a specific requirement to comply with the August 1999 approved Dust Control (PM Control) Plan and specific fugitive dust requirements from Construction Permit 9932-AC005 Rev. 2, and Minor Permit AQ0290MSS06 Rev. 1.

Condition 98, Stack Injection

Legal Basis: This condition reiterates 18 AAC 50.055(g), which prohibits the Permittee from releasing materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack (i.e. disposing of material by injecting it into a stack). 18 AAC 50.055(g) is included in the SIP approved by EPA and is therefore an applicable requirement per 40 CFR 71.2.

Stack injection requirements apply to a stack or stationary source constructed or modified after November 1, 1982.

Factual Basis: No specific monitoring for this condition is practical. Compliance is ensured by inspections, because the unit or stack would need to be modified to accommodate stack injection.

Condition 99, Air Pollution Prohibited

Legal Basis: This condition requires compliance with 18 AAC 50.110. 18 AAC 50.110 is included in the SIP approved by EPA and is therefore an applicable requirement per 40 CFR 71.2. The condition prohibits the Permittee from causing any emission that is injurious to human health or welfare, animal or plant life, or property, or that would unreasonably interfere with the enjoyment of life or property. The Department also included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and (c)(1).

Factual Basis: The Department used the language in SPC II for the permit. This condition spells out how to monitor, record, and report prohibited air pollution. While the other permit conditions and emissions limitations should ensure compliance with this condition, unforeseen emission impacts can cause violations of this standard. These violations would go undetected except for complaints from affected persons. Therefore, to monitor compliance, the Permittee must monitor and respond to complaints.

The Permittee is required to report any complaints and injurious emissions. The Permittee must keep records of the date, time and nature of all complaints received and summary of the investigation and corrective actions undertaken for these complaints, and must submit copies of these records upon request of the Department.

Condition 100, Construction or Modification

Legal Basis: This condition requires compliance with the applicable requirement carried forward from Condition 38 of Construction Permit 9932-AC005, Rev 2 issued 7/16/03. Pre-construction approval for reconstructing a major source is a requirement of the Clean Air Act.

Factual Basis: The condition requires the Permittee to obtain written approval from the Department before reconstructing or modifying a major source.

Condition 101, Technology-Based Emission Standard

Legal Basis: The Permittee is required to take reasonable steps to minimize emissions if unavoidable emergency, malfunction, or non-routine activities cause an exceedance of any technology-based emission standard in this permit. This condition requires compliance with the applicable requirement in 18 AAC 50.235. Technology-Based Emission Standard requirements apply because the stationary source contains equipment subject to a technology-based emission standard, such as BACT, MACT, LAER, NSPS or any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

Factual Basis: The conditions of this permit list applicable technology-based emission standards and require excess emission reporting for each standard in accordance with Condition 117. Excess emission reporting under Condition 117 requires information on the steps taken to minimize emissions. Monitoring of compliance for this condition consists of the report required under Condition 117.

Condition 102, Open Burning

Legal Basis: The condition requires the Permittee to comply with the regulatory requirements in 18 AAC 50.065 when conducting open burning at the stationary source. The state open burning regulation in 18 AAC 50.065 applies to the Permittee if the Permittee conducts open burning at the stationary source.

Factual Basis: The Permittee may conduct open burning by following the provisions of 18 AAC 50.065 and by following the Department guidelines posted at the website http://dec.alaska.gov/air/air-permit/open-burn-info.

Condition 102.2f requires the Permittee to keep records to demonstrate compliance with the standards for conducting open burning.

More extensive monitoring and recordkeeping is not warranted because the Permittee does not conduct open burning as a routine part of their business. Also, most of the requirements are prohibitions, which are not easily monitored. Compliance is demonstrated through annual certification required under Condition 119.

Condition 103, Requested Source Tests

Legal Basis: The Permittee is required to conduct source tests as requested by the Department. This requirement is under 18 AAC 50.220(a) and 50.345(k), which are included in the SIP approved by EPA.

Factual Basis: This condition applies because it is a standard condition to be included in all operating permits, as specified in 18 AAC 50.345(a). Compliance is demonstrated by the submission of the required source test plan and report.

Conditions 104 through 106, Operating Conditions, Reference Test Methods, Excess Air Requirements

Legal Basis: **C**onditions 104 and 106 require compliance with the applicable requirements in 18 AAC 50.220(b) and (c)(3), which are included in the SIP approved by EPA. Condition 105 specifies source test methods, as required by 40 CFR 71.6(a)(3)(i) and 71.6(c)(1). These requirements apply because the Permittee is required by this permit to conduct source tests or a source test may be requested by the Department. The Permittee is required to conduct source tests in the manner set out in Conditions 104 through 106.

Factual Basis: These conditions supplement the specific monitoring requirements stated elsewhere in this permit.

Condition 107, Test Exemption

Legal Basis: This condition incorporates the source test exemption in 18 AAC 50.345(a) regarding visible emissions observations. 18 AAC 50.345(a) is included in the SIP approved by EPA.

Factual Basis: As provided in 18 AAC 50.345(a), the requirements for test plans, notifications and reports do not apply to visible emissions observations by smoke readers, except in connection with required particulate matter testing.

Conditions 108 through 111, Test Deadline Extension, Test Plans, Notifications and Reports

Legal Basis: **C**onditions 109 through 111 require compliance with the applicable requirements in 18 AAC 50.345(m)–(o), which are included in the SIP approved by EPA. Condition 108 contains the requirement in 18 AAC 50.345(l). The requirements in in 18 AAC 50.345(l)–(o) are standard conditions that must be included in each operating permit, as specified in 18 AAC 50.345(a). These requirements apply because the Permittee is required to conduct source tests as set out by this permit or as requested by the Department.

Factual Basis: These standard conditions supplement specific monitoring requirements stated elsewhere in this permit.

Condition 112, Particulate Matter Calculations

Legal Basis: This condition requires the Permittee to reduce particulate matter data in accordance with 18 AAC 50.220(f), which is included in the SIP approved by EPA. It applies when the Permittee tests for compliance with the particulate matter standards in 18 AAC 50.050 or 50.055.

Factual Basis: The condition incorporates a regulatory requirement for particulate matter source tests. This condition supplements specific monitoring requirements stated elsewhere in this permit.

Condition 113, Recordkeeping Requirements

Legal Basis: This condition requires the Permittee to keep records in accordance with 40 CFR 71.6(a)(3)(ii), which the Department adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: The condition restates the regulatory requirements for recordkeeping and supplements the recordkeeping defined for specific conditions in the permit. The records being kept provide evidence of compliance with this requirement.

Condition 114, Certification

Legal Basis: All operating permits must contain a requirement to certify any permit application, report, affirmation, or compliance certification, per 18 AAC 50.345(j) and with the certification requirement in 18 AAC 50.205. Both requirements are part of the SIP approved by EPA.

Factual Basis: The requirement in 18 AAC 50.345(j) is a standard condition that must be included in each operating permit, as specified in 18 AAC 50.345(a). This condition requires the Permittee to certify any permit application, report, affirmation, or compliance certification submitted to the Department. To ease the certification burden on the Permittee, the condition allows the excess emission reports to be certified with the operating report, even though it must still be submitted more frequently than the operating report. This condition supplements the reporting requirements of this permit.

Condition 115, Submittals

Legal Basis: This condition requires the Permittee to comply with standardized reporting requirement in 18 AAC 50.326(j) and applies because the Permittee is required to send reports to the Department.

Factual Basis: This condition lists the Department's appropriate address for reports and written notices. The Permittee is required to submit reports, compliance certifications, and other submittals required by this permit, either electronically or by hard copy. This condition supplements the standard reporting and notification requirements of this permit.

Condition 116, Information Requests

Legal Basis: All operating permits must include a condition that requires the Permittee to furnish certain information upon request, per 18 AAC 50.345(i). The requirement is part of the SIP approved by EPA.

Factual Basis: The requirement in 18 AAC 50.345(i) is a standard condition that must be included in each operating permit, as specified in 18 AAC 345(a). This condition requires the Permittee to submit information requested by the Department.

Condition 117, Excess Emission and Permit Deviation Reports

Legal Basis: This condition requires the Permittee to comply with the requirements in 18 AAC 50.235(a)(2) and 18 AAC 50.240(c). Also, the Permittee is required to notify the Department when emissions or operations deviate from the requirements of the permit.

Factual Basis: This condition satisfies two state regulations related to excess emissions - the technology-based emission standard regulation and the excess emission regulation.

Although there are some differences between the regulations, the condition satisfies the requirements of each regulation.

The Department used the language in SPC III for the permit condition. The Department used the notification form in SPC IV (see Section 14) for the notification requirements.

Condition 118, Operating Reports

Legal Basis: This condition requires compliance with the applicable requirement in 18 AAC 50.346(b)(6). The condition specifies reporting requirements as required by 40 CFR 71.6(a)(3)(iii)(A) and 71.6(c)(1).

Factual Basis: The Department used the language in SPC VII for the permit condition. The condition restates the requirements for reports listed in regulation. The condition supplements the specific reporting requirements elsewhere in the permit.

The condition specifies that for the transition periods between an expiring permit and a renewal permit, the Permittee shall ensure that there is date-to-date continuity between the expired permit and the renewal permit such that the Permittee reports against the permit terms and conditions of the permit that was in effect during those partial date periods of the transition. No format is specified. The Permittee may provide one report accounting for each permit term or condition and the effective permit at that time. Alternatively, the Permittee may choose to provide two reports – one accounting for reporting elements of permit terms and conditions from the end date of the previous operating report until the date of expiration of the old permit, and a second operating report accounting for reporting elements of terms and conditions in effect from the effective date of the renewal permit until the end of the reporting period

Condition 119, Annual Compliance Certification

Legal Basis: This condition ensures compliance with the applicable requirement in 40 CFR 71.6(c)(5), which the Department adopted by reference under 18 AAC 50.040(j)(4).

Factual Basis: This condition specifies the periodic compliance certification requirements and specifies a due date for the annual compliance certification.

Condition 119.2 provides clarification of transition periods between an expiring permit and a renewal permit to ensure that the Permittee certifies compliance with the permit terms and conditions of the permit that was in effect during those partial date periods involved in the transition. No format is specified. The Permittee may provide one report certifying compliance with each permit term or condition for each of the effective permits during the certification period or may choose to provide two reports – one certifying compliance with permit terms and conditions from January 1 until the date of expiration of the old permit and a second report certifying compliance with terms and conditions in effect from the effective date of the renewal permit until December 31.

The Permittee is required to submit to the Department an annual compliance certification report. The Permittee may submit the required report electronically at their discretion. This change more adequately meets the requirements of 18 AAC 50 and agency needs, as the Department can more efficiently distribute the electronic copy to staff in other locations.

Condition 120, Emission Inventory Reporting

Legal Basis: This condition requires the Permittee to submit emissions data to the state so the state is able to satisfy the federal requirement to submit emission inventory data from point sources as required under 40 CFR 51.321. The emission inventory requirement applies to sources defined as point sources in 40 CFR 51.50. The state must report all data elements in Tables 2a and 2b of Appendix A to Subpart A of 40 CFR 51 to EPA.

Factual Basis: The Department used the language in SPC XV, adopted by reference under 18 AAC 50.346(b)(8), for the permit condition but corrected the emissions threshold amount for Pb in Condition 120.2a from 5 tpy to 0.5 tpy actual emissions. To increase governmental efficiency and reduce costs associated with information requests that occur on a routine basis, it has been determined that a standard permit condition best fulfills the need to gather the information needed to satisfy the requirements of Subpart A of 40 CFR 51.

The emission inventory data is due to EPA 12 months after the end of the reporting year (40 CFR 51.30(a)(1) and (b)(1)). Permittees have four months to compile and submit the data to the Department but the April 30 due date provides scant time for the Department to transfer the data into EPA's electronic reporting system. The Department therefore encourages Permittees to submit the emission inventory electronically through Air Online Services (http://dec.alaska.gov/Applications/Air/airtoolsweb/PointSourceEmissionInventory). This website provides the instructions and emission inventory report forms required by this condition. Detailed instructions on development and submission of the Emission Inventory are available by clicking the Emission Inventory Instructions button.

Actual measurement with continuous emissions monitoring systems (CEMS) is the preferred method of calculating emissions from a source. If CEMS data is not available, other means for determining actual emissions may be utilized, such as an enforceable test method described in 18 AAC 50.220, material balance calculations, emission factors from EPA's AP-42, or other methods and calculations approved by the Department, including appropriate vendor-provided emissions factors when sufficient documentation is provided. If necessary, detailed sample calculations representative of the processes may be submitted with the emission inventory, thus, providing verifiable reported emissions and eliminating the need for additional information requests.

To ensure that the Department's electronic system reports complete information to the National Emissions Inventory, Title V stationary sources classified as Type A in Table 1 of Appendix A to Subpart A of 40 CFR 51 are required to submit with each annual report all the data elements required for the Type B source triennial reports (see also Tables 2a and 2b of Appendix A to Subpart A of 40 CFR Part 51). All Type A sources are also classified as Type B sources. However, the Department has streamlined the reporting requirements so this Type A source only needs to submit a single type of report every year instead of both an annual report and a separate triennial report every third year.

Condition 121, Permit Applications and Submittals

Legal Basis: 40 CFR 71.10(d)(1), adopted by reference under 18 AAC 50.040(j)(7), requires submission of a copy of each permit application to EPA.

Factual Basis: With one minor exception, the Department used the language in SPC XIV for the permit. SPC XIV directs the applicant to send copies of all application materials required to be submitted to the Department directly to the EPA, in electronic format if practicable. This condition shifts the burden of compliance from the Department to ensure that copies of application materials are submitted to EPA by transferring that responsibility to the Permittee. The Department revised the standard condition language to reference the current address provided by EPA.

Conditions 122 through 124, Permit Changes and Revisions Requirements

Legal Basis: 40 CFR 71.6(a)(8), (12), and (13) incorporated by reference under 18 AAC 50.040(j) require that these provisions be included in operating permits.

Factual Basis: 40 CFR 71.6(a)(12) and (13), as reflected in Conditions 123 and 124, respectively, specify changes that may be made without a permit revision, and 40 CFR 71.6(a)(8) (Condition 122) states permit revisions are not required for some emissions trading and similar programs.

The Permittee did not request trading of emission increases and decreases as described in 40 CFR 71.6(a)(13)(iii); therefore, language addressing these provisions has not been included in this permit as part of Condition 122.

Condition 125, Permit Renewal

Legal Basis: The Permittee must submit a timely and complete operating permit renewal application if the Permittee intends to continue source operations in accordance with the operating permit program. The obligations for a timely and complete operating permit application are in 40 CFR 71.5(a) through (c), adopted by reference in 18 AAC 50.040(j)(3) and 18 AAC 50.326(c).

Factual Basis: In accordance with AS 46.14.230(a), this operating permit is issued for a fixed term of five years after the date of issuance, unless a shorter term is requested by the permit applicant. The Permittee is required to submit an application for permit renewal by the specific dates applicable to the stationary source as listed in this condition. As stated in 40 CFR 71.5(a)(1)(iii), submission for a permit renewal application is considered timely if it is submitted at least six months but no more than eighteen months prior to expiration of the operating permit. According to 40 CFR 71.5(a)(2), a complete renewal application is one that provides all information required pursuant to 40 CFR 71.5(c) and remits payment of fees owed under the fee schedule established pursuant to 18 AAC 50.400. 40 CFR 71.7(b) states that if a source submits a timely and complete application for permit issuance (including renewal), the source's failure to have a permit is not a violation until the permitting authority takes final action on the permit application.

Therefore, as long as an application has been submitted within the timeframe specified under 40 CFR 71.5(a)(1)(iii) and is complete before the expiration date of the existing permit, then the expiration of the existing permit is extended and the Permittee has the right to operate under that permit until the effective date of the new permit. However, this protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit by the deadline specified in writing by the Department any additional information needed to process the application.

Conditions 126 through 130, General Compliance Requirements and Schedule

Legal Basis: These conditions require compliance with the applicable requirement in 18 AAC 50.345(b) through (d) and (h) and 40 CFR 71.6(c)(3). As stated in 18 AAC 50.345(a), the requirements in 18 AAC 50.345(b) through (d) and (h) are standard conditions that must be included in all operating permits issued by the Department.

Factual Basis: These standard conditions for compliance are required for all operating permits.

Conditions 131 and 132, Permit Shield

Legal Basis: These conditions require compliance with the requirements in 40 CFR 71.6(f), which the Department adopted by reference under 18 AAC 50.040(j)(4). These requirements apply because the Permittee has requested that the Department shield the stationary source from specific non-applicable requirements listed under this condition.

Factual Basis: Table E of Operating Permit AQ0290TVP03 shows the permit shield that the Department granted to the Permittee. The permit conditions set forth the requirements that the Department determined were not applicable to the stationary source. The following table shows the requests that were denied and the reasons that they were denied. The Department based the determinations on the permit application, past operating permit, likelihood for the source to become subject during the life of the permit, Title I permits and inspection reports.

Table R - Permit Shield Requests Denied

Shield requested for:	Reason for shield request:	Reason for request denial:
40 CFR 60 Subparts B, C, Cb, Cc, Cd, Ce, Cf, D, Da, Db, E, Ea, Eb, Ec, F, G, Ga, H, J, Ja, K, Ka, Kb, L, M, N, Na, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AAa, BB, BBa, CC, DD, EE, GG, HH, KK, MM, NN, PP, QQ, RR, SS, TT UU, VV, VVa, WW, XX, AAA, BBB, DDD, FFF, GGG, GGGa, HHH, III, JJJ, KKK, LLL, NNN, PPP, QQQ, RRR, SSS, TTT, UUU, VVV, WWW, XXX, AAAA, BBBB, CCCC, DDDD, EEEE, FFFF, JJJJ, KKKK, LLLL, MMMM, OOOO, OOOOa, QQQQ, TTTT, and UUUU	No affected emissions units within stationary source nor any affected facilities, operations, or industries	These are not considered potentially applicable requirements and therefore permit shields are not relevant.

Shield requested for:	Reason for shield request:	Reason for request denial:
40 CFR 63 Subparts B, C, D, E, F, G, H, I, J, L, M, N, O, Q, R, S, T, U, W, X, Y, AA, BB, CC, DD, EE, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV, WW, XX, YY, CCC, DDD, EEE, GGG, HHH, III, JJJ, LLL, MMM, NNN, OOO, PPP, QQQ, RRR, TTT, UUU, VVV, XXX, AAAA, CCCC, DDDD, EEEE, FFFF, GGGG, HHHH, IIII, JJJJ, KKKK, MMMM, NNNN, OOOO, PPPP, QQQQ, RRRR, SSSS, TTTT, UUUU, VVVV, WWWW, XXXX, YYYY, AAAAA, BBBBB, CCCCC, EEEEE, FFFFF, GGGGG, HHHHH, IIIII, JJJJJ, KKKKK, LLLLL, and MMMMM	No affected emissions units within stationary source nor any affected facilities, operations, or industries	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
18 AAC 50.055(a)(5), (a)(6), and (a)(9); (b)(2) and (b)(3); (d); and (e)	The stationary source does not include the emissions units described in the cited regulation.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
18 AAC 50.060	The stationary source does not include the emissions units described in the cited regulation.	18 AAC 50.060 was repealed 8/20/2016.
18 AAC 50.070	The stationary source does not include the emissions units described in the cited regulation.	The EU inventory does not contain any marine vessels and therefore a permit shield is not relevant.
18 AAC 50.075, 50.076, 50.077, and 50.079,	The stationary source does not include the emissions units described in the cited regulation.	The EU inventory does not contain any solid fuel-fired, wood-fired, or coal-fired heating devices and therefore a permit shield is not relevant.
18 AAC 50.085 and 50.090	The facility is not located in the Port of Anchorage	The regulations only apply to EUs within the Port of Anchorage and therefore permit shields are not relevant.
Open Burning	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.	The Permittee is subject to the open burning requirements of 18 AAC 50.065 even though emissions from open burning do not count towards PTE. Therefore, a permit shield for open burning is denied.
18 AAC 50 (for WWTP only)	The wastewater treatment plant is not an air pollutant emission source	These are not considered potentially applicable requirements for the WWTP and therefore a permit shield is not relevant.

Shield requested for:	Reason for shield request:	Reason for request denial:
1988 BACT Determination	The 1988 BACT determination has been superseded by the BACT determination in permit 9932-AC005 Revision 1.	Only applicable BACT requirements from Construction Permit 9932-AC005 Revision 2 (7/16/03) are included in the operating permit. Therefore, a shield from the 1988 BACT is not relevant.
40 CFR 63 Subpart JJJJJJ	Per 40 CFR 63.11193, 40 CFR 63 Subpart JJJJJJ is not applicable because EU IDs AP-16, AP-18, and MH-4 and MH-5 are located at a major source of HAP.	These requirements will be applicable when the stationary source operates as an areas source of HAP emissions.
40 CFR 60 Subparts D, Da, and Db	Per 40 CFR 60.40(a)(1) and 60.40a(a)(1), 40 CFR 60 Subparts D and Da are not applicable because EU IDs MH-4 and MH-5 do not have a heat input rate greater than 250 MMBtu/hr. Per 40 CFR 60.40b(a), NSPS Subpart Db is not applicable because EU IDs MH-4 and MH-5 do not have a heat input rate greater than 100 MMBtu/hr	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63.7491 and 63.7499(a) through (n), (p), & (r) through (t) and 63.7545(c) of NESHAP Subpart DDDDD	MH-5 (constructed in 2005) is an existing boiler located at a major source of HAP. The EU fires only diesel fuel. The EU does not meet the definition of electric utility steam generating unit.	40 CFR 63.7491 lists the types of boilers and process heaters that are not subject to NESHAP Subpart DDDDD and 63.7499 is a list of the subcategories of boilers and process heaters. Therefore, permit shields are not relevant. 63.7545(c) would be applicable if the EUs are reconstructed or modified.
40 CFR 63.7500(b) of NESHAP Subpart DDDDD	EU ID MH-5 is an existing boiler located at a major source of HAP. The EU fires only diesel fuel. The EU does not meet the definition of limited use boiler or electric utility steam generating unit and was constructed in 2005.	40 CFR 63.7500(b) states that EPA may approve use of an alternative to the work practice standards in 63.7500. Therefore, a permit shield is not relevant.
40 CFR 63.7495(e), 63.7510(h), 63.7545(g) of NESHAP Subpart DDDDD	EU ID MH-5 does not currently combust solid waste and have not combusted solid waste in the past.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60 Subpart IIII and Subpart JJJJ (for EU ID AP-19 & AP-20)	EU IDs AP-19 and AP-20 are compression ignition, nonroad engines and do not meet the definition of stationary internal combustion engine provided in 40 CFR 60.4219 and 60.4248	These are not considered potentially applicable requirements and therefore permit shields are not relevant.

Shield requested for:	Reason for shield request:	Reason for request denial:
40 CFR 63 Subpart ZZZZ (for EU ID AP-19 and AP-20)	EU IDs AP-19 and AP-20 are compression ignition, nonroad engines and do not meet the definition of stationary reciprocating internal combustion engine provided in 40 CFR 63.6675	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60 Subpart IIII	EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, and MG-22 are exempt from 40 CFR 60 Subpart IIII because construction commenced prior to July 11, 2005 and they have not been reconstructed or modified. EU ID MXG-101 does not meet the definition of stationary ICE provided in 40 CFR 60.4219.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63 Subpart ZZZZ	EU ID MXG-101 does not meet the definition of stationary RICE provided in 40 CFR 63.6675	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60 Subpart JJJJ	EU IDs MG-1 through MG-9, MG-11, MG-17 through MG-20, MG-22, MG-27 through MG-29, and MXG-101 are exempt from 40 CFR 60.4230(a) because they are not spark ignition engines.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63.6601, 63.6602, 63.6603(a) through (c), (e), and (f), 63.6604(d), 63.6611, 63.6612, 63.6625(d) through (f), (j), 63.6630(e), 63.6640(c) through (f), 63.6645(b), (c), and (i), 63.6650(g), 63.6655(c), Table 2a to Subpart ZZZZ, Items 1 and 3 of Table 2b to Subpart ZZZZ, Items 1 through 4 and 6 through 13 of Table 2c to Subpart ZZZZ, Items 1, 2, and 5 of Table 3 to Subpart ZZZZ, Items 3 and 11 through 14 of Table 5 to Subpart ZZZZ, Items 1,2, 9 and 11 through 15 of Table 6 to Subpart ZZZZ, Items 2 through 4 of Table 7 to Subpart ZZZZ	EU IDs MG-1 through MG-6, MG-17, MG-18 are existing non-emergency diesel-fired (compression ignition) engines rated at over 500 brake hp located at a major source of HAP emissions. They are not black start engines, do not fire landfill or digester gas, and do not meet the definition of a limited use engine.	Most of these are not considered potentially applicable requirements and therefore permit shields are not relevant. 40 CFR 63.6645(b) and (c) pertain to initial notifications. Shields are not relevant for previously completed notifications. 40 CFR 63.6645(c) would be applicable if an EU is ever reconstructed. There is no Item 13 of Table 2c to Subpart ZZZZ.
40 CFR 63.6604(b) and (c), 63.6650(h) of NESHAP Subpart ZZZZ	EU IDs MG-1 through MG-6, MG-17, MG-18 are not connected to a power grid and do not provide power to any other entity.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63.6610, 63.6620(i) and Item 2 of Table 5 to Subpart ZZZZ	The initial performance test, notification of compliance status, and initial compliance requirements for EU IDs MG-1 through MG-6, MG-17, MG-18 were completed previously.	Shields are not relevant for previously completed applicable requirements.

Shield requested for:	Reason for shield request:	Reason for request denial:
40 CFR 63.6601, 63.6602, 63.6603, 63.6604, 63.6610, 63.6611, 63.6625(d), 63.6625(e)(1) and (3) through (10), 63.6625(g) and (j), 63.6640(c) and (d), 63.6645(b), (c), (e), (f), 63.6655(e)(1) and (3), 63.6655(f)(2), Tables 1a, 1b, 2a, 2b, 2d, 5, and 7 to Subpart ZZZZ, Items 2 through 12 of Table 2c to Subpart ZZZZ, and Items 1 through 8 and 10 through 15 of Table 6 to Subpart ZZZZ	EU IDs MG-11, MG-19, MG-20, MG-22, are existing emergency diesel-fired (compression ignition) engines rated at 500 brake hp or less and are located at a major source of HAP emissions.	Most of these are not considered potentially applicable requirements and therefore permit shields are not relevant. However, 40 CFR 63.6602 is an applicable requirement for existing CI RICE at a major source and the shield is denied. 40 CFR 63.6645(e) would be applicable if an EU is ever reconstructed.
40 CFR 63.6625(c), 63.6650(g), and 63.6655(c) of NESHAP Subpart ZZZZ	EU IDs MG-11, MG-19, MG-20, MG-22 do not fire landfill or digester gas.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63.6630 of NESHAP Subpart ZZZZ	Initial compliance of EU IDs MG-11, MG-19, MG-20, MG-22 was previously demonstrated.	Shields are not relevant for previously completed applicable requirements.
40 CFR 63.6650(h) of NESHAP Subpart ZZZZ	EU IDs MG-11, MG-19, MG-20, MG-22 are not connected to a power grid and do not provide power to any other entity.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 63 Subpart ZZZZ (for EU ID MG-27)	Per 40 CFR 63.6590(c)(6), EU ID MG-27 meets the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII.	Meeting the requirements of NESHAP Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII does not mean that MG-27 is exempt from NESHAP Subpart ZZZZ.
40 CFR 63 Subpart ZZZZ, except for 40 CFR 63.6645(c) & (f) (for EU IDs MG-28 & MG-29)	Per 40 CFR 63.6590(b)(1), EU IDs MG-28, MG-29 are only subject to the initial notification requirements of 40 CFR 63.6645(f) since they are new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).	Other than the initial notification, additional requirements of NESHAP Subpart ZZZZ are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4201, 60.4202, 60.4203, 60.4210 of NSPS Subpart IIII	Teck is not an engine manufacturer.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4204, 60.4205(a), 60.4205(c), 60.4205(d), 60.4208(c) through (g), 60.4211(b) & (g)(3), 60.4213, 60.4214(a) of NSPS Subpart IIII	EU ID MG-27 is a certified emergency engine, model year of 2007 or later, displacement of less than 30 liters per cylinder, not fire pump engine, and rated at less than 500 hp.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.

Shield requested for:	Reason for shield request:	Reason for request denial:
40 CFR 60.4204, 60.4205(a), 60.4205(c), 60.4205(d), 60.4208(c) through (g), 60.4211(b) & (g)(2), 60.4213, 60.4214(a) of NSPS Subpart IIII	EU IDs MG-27, MG-28 and MG-29 are certified emergency engines, model year of 2007 or later, displacement of less than 30 liters per cylinder, not fire pump engines, and rated at more than 500 hp.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4205(e), 60.4205(f), 60.4211(d), 60.4211(e), 60.4212 of NSPS Subpart IIII	Teck does not conduct performance tests and EU IDs MG-27 through MG-29 are not modified or reconstructed.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4207(a), 60.4207(d), and 60.4207(e) of NSPS Subpart IIII	Year 2012 has passed and Teck does not have a national security exemption.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4211(h), 60.4214(e) of NSPS Subpart IIII	EU ID MG-27 through MG-29 are not equipped with an AECD.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4215 of NSPS Subpart IIII	EU ID MG-27 through MG-29 are not located in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60.4211(f)(2)(ii), 60.4211(f)(2)(iii), 60.4214(d) of NSPS Subpart IIII	EU IDs MG-27 through MG-29 are located in a remote area of Alaska and are not connected to any power grid.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 62 Subpart FFF	Per 40 CFR 62.14102(a), EU IDs MI-2 and MI-3 are exempt because each unit is not capable of combusting more than 250 tons per day (tpd) of municipal solid waste.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 62 Subpart HHH	Per 40 CFR 62.14400, EU IDs MI-2 and MI-3 are exempt because the units do not combust HMIWI.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 62 Subpart JJJ	Per 40 CFR 62.15010(a)(1), EU IDs MI-2 and MI-3 are exempt because each unit is not capable of incinerating more than 35 tons per day of municipal solid waste or refuse-derived fuel.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 62 Subpart JJJ	EU IDs MI-2 and MI-3 are exempt per 40 CFR 63.1200 because the units do not combust hazardous waste.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
18 AAC 50.055 (for EU IDs MF-4 through MF-6)	EU IDs MF-4 through MF-6 do not meet the definition of industrial process provided in 18 AAC 50.090(49).	These are not considered potentially applicable requirements and therefore permit shields are not relevant.

Shield requested for:	Reason for shield request:	Reason for request denial:
18 AAC 50.055 (for EU IDs MF-7 through MF-9)	Stockpiles, open burning, and fire fighter training do not meet the definition of industrial process in 18 AAC 50.090(49).	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60 Subpart OOO (for EU ID AP-11 through AP-14)	The aggregate storage piles and transfer points are exempt because they are not listed affected facilities and because the asphalt plant does not meet the definition of a non-metallic mineral processing plant under 40 CFR 60.671.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.
40 CFR 60 Subpart OOO (for EU ID AP-15 and AP-17)	The asphalt plant and HMA truck loadout are exempt because the facility does not meet the definition of a non-metallic mineral processing plant under 40 CFR 60.671.	These are not considered potentially applicable requirements and therefore permit shields are not relevant.