DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT

Permit No. AQ0316TVP03 Issue Date: Public Comment - June 3, 2021
Expiration Date: Five Years

The Alaska Department of Environmental Conservation, under the authority of AS 46.14 and 18 AAC 50, issues an operating permit to the Permittee, **University of Alaska Fairbanks (UAF)**, for the operation of the **University of Alaska Fairbanks Campus**.

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 Minor Permit Nos. AQ0316MSS03, AQ0316MSS04, AQ0316MSS05, AQ0316MSS06 Revision 2, AQ0316MSS07, and AQ0316MSS08 have been incorporated into this operating permit.

Upon effective date of this permit, Operating Permit No. AQ0316TVP02, Rev. 1 expires.

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

James R. Plosay, Manager
Air Permits Program

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Abbreviations and Acronyms

AAC.....Alaska Administrative Code
acfm.....actual cubic feet per minute
ACEP.....Alaska Center for Energy and Power
ADEC.....Alaska Department of Environmental Conservation
Administrator.....EPA and the Department.
AEIC.....Alaska Earthquake Information Center
AFES.....Agricultural and Forestry Experiment Station
AHRB.....Arctic Health Research Building
AHRC.....Arctic Health Research Center
AS.....Alaska Statutes
ASTM.....American Society for Testing and Materials
BACT.....Best Available Control Technology
BHp.....Boiler Horsepower
BiRD.....Biological Research and Diagnostics Facility
C.F.R.....Code of Federal Regulations
CAA, The Act.....Clean Air Act
CAM.....Compliance Assurance Monitoring
CDX.....Central Data Exchange
CEDRI.....Compliance and Emissions Data Reporting Interface
CEMS.....Continuous Emissions Monitoring System
C.F.R.....Code of Federal Regulations
CFB.....Circulating Fluidized Bed
CO.....Carbon Monoxide
CMS.....Continuous Monitoring System
CO_2e.....CO_2-equivalent
COMS.....Continuous Opacity Monitoring System
CPMS.....Continuous Parameter Monitoring System
Department.....Alaska Department of Environmental Conservation
dscf.....Dry standard cubic foot
EPA.....US Environmental Protection Agency
EU.....Emissions unit
FP.....Federal Plan
FNSB.....Fairbanks North Star Borough
GAPCP.....Good Air Pollution Control Practice
GHG.....Greenhouse Gas
GPH.....gallons per hour
g/dscm.....grams per dry standard cubic meter
gr/dscf.....grain per dry standard cubic foot (1 pound = 7000 grains)
HAPs.....Hazardous Air Pollutants [as defined in AS 46.14.990]
HCl.....Hydrochloric Acid
HF.....Hydrogen Fluoride (Hydrofluoric acid)
Hg.....Mercury
Hp.....Horsepower
HMI.....Hospital/Medical/Infectious
HMIWI.....Hospital/Medical/Infectious Waste Incinerators
ID.....Emissions Unit Identification Number
kPa.....kiloPascals
kW.....kiloWatt
LAER.....Lowest Achievable Emission Rate
L/cyl.....liters per cylinder
MACT.....Maximum Achievable Control Technology [as defined in 40 C.F.R. 63]
MMBtu/hr.....Million British thermal units per hour
MMscf.....Million standard cubic feet
MR&R.....Monitoring, Recordkeeping, and Reporting
NA NSR.....Nonattainment New Source Review
NESHAPs.....Federal National Emission Standards for Hazardous Air Pollutants [NESHAPs as contained in 40 C.F.R. 61 and 63]
NH_3.....ammonia
NO_x.....Nitrogen Oxides
NSPS.....Federal New Source Performance Standards [NSPS as contained in 40 C.F.R. 60]
O & M.....Operation and Maintenance
O_2.....Oxygen
OSWI.....Other Solid Waste Incineration
PAL.....Plantwide Applicability Limitation
Pb.....lead

PM ..... Particulate Matter

PM_{10} ..... Particulate Matter less than or equal to a nominal ten 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

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

PSD ..... Prevention of Significant Deterioration

PTE ..... Potential to Emit

SCR ..... Selective Catalytic Reduction

SIC ..... Standard Industrial Classification

SIP ..... State Implementation Plan

SOB ..... Statement of Basis

SO_2 ..... Sulfur dioxide

SPC ..... Standard Permit Condition or Standard Operating Permit Condition

TPH ..... Tons per hour

TPY ..... Tons per year

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

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

vol% ..... volume percent

wt% ..... weight percent

$wt\%S_{fuel}$ ..... weight percent of sulfur in fuel

Section 1. Stationary Source Information

Identification

Permittee:	University of Alaska Fairbanks P.O. Box 757920 Fairbanks, AK 99775
Stationary Source Name:	University of Alaska Fairbanks Campus
Location:	64º 51´ North; 147º 51´ West
Physical Address:	802 Alumni Drive Fairbanks, AK 99775
Owner:	University of Alaska Fairbanks P.O. Box 757920 Fairbanks, AK 99775
Operator:	University of Alaska Fairbanks P.O. Box 757920 Fairbanks, AK 99775
Permittee's Responsible Official:	Jennifer Campbell Acting Associate Vice Chancellor for Facilities Services 803 Alumni Drive P.O. Box 757380, Fairbanks, AK 99775
Designated Agent:	Jennifer Campbell Acting Associate Vice Chancellor for Facilities Services
Stationary Source and Building Contact:	Russ Steiger, Environmental Compliance Officer P.O. Box 758145, Fairbanks, AK 99775 (907) 474-5812 rhsteiger@alaska.edu
Fee Contact:	Accounts Payable, Administrative Service Center University of Alaska Fairbanks P.O. Box 757920, Fairbanks, AK 99775
Permit Contact:	Russ Steiger P.O. Box 758145, Fairbanks, AK 99775 (907) 474-5812 rhsteiger@alaska.edu
Process Description SIC Code:	8221 Colleges, Universities and Professional Schools

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

Section 2. Emissions Unit Inventory and Description

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

Table A - Emissions Unit Inventory[1]

EU ID	Building No.	Emissions unit Description (Make/Model)	Rating/Size	Fuel Type	Installation/ Construction Date
Boilers and Dryers					
3	FS802	Dual-Fired Boiler (Zurn)	180.9 MMBtu/hr	Dual Fuel (Gas/Diesel)	1970
4	FS802	Dual-Fired Boiler (Zurn)	180.9 MMBtu/hr	Dual Fuel (Gas/Diesel)	1987
17	FS909	West Ridge Research Building Boiler #1 (Weil McLain/BL1688w-GPr10)	4.93 MMBtu/hr	ULSD	2003
18	FS909	West Ridge Research Building Boiler #2 (Weil McLain/BL1688w-GPr10)	4.93 MMBtu/hr	ULSD	2003
19	FS919	BiRD Rm 100 U3 Boiler #1 (Weil McLain/2094W)	6.13 MMBtu/hr	ULSD	2004
20	FS919	BiRD Rm 100 U3 Boiler #2 (Weil McLain/2094W)	6.13 MMBtu/hr	ULSD	2004
21	FS919	BiRD Rm 100 U3 Boiler #3 (Weil McLain/2094W)	6.13 MMBtu/hr	ULSD	2004
22	FS919	BiRD Rm 100 U3 Boiler #4 (Bryan/EB200-S-150-FDGO)	8.5 MMBtu/hr	ULSD	2005
25	AF108	AFES Grain Dryer (Unknown)	2.43 MMBtu/hr	#1 Diesel	1988
Power Generator Engines					
8	FS817	Peaking/Backup Generator (Morse Colt-Pielstick PC2.6 Engine)	13,266 Hp	Diesel[3]	1999
24[5]	FS423	Old University Park Emergency Generator (Cummins/4B3.8-G2)	72 Hp[4]	#2 Diesel	2001
26	FS103	Duckering Classroom Engine (Mitsubishi-Bosh)	64 Hp[4]	#2 Diesel	1987
27	FS814	ACEP Generator Engine (Caterpillar C-15, Model Year 2007)	500 Hp	ULSD	2013
29[6]	FS901	AHRB Emergency Generator Engine (Cummins/QSB7-G6, Model Year 2012)	314 Hp	ULSD	2013/ 2012
34[6]	FS919	BiRD Emergency Generator Engine No. 1 (Cummins QSB7-G5 NR3 Engine, EPA Tier 3, Model Year 2011)	324 hp	ULSD	2015/ 2013
35	SW910	Butrovich Administrative Building Emergency Generator Engine (Cummins QSK23-G7 NR2 Engine, EPA Tier 2, Model Year 2018)	1,220 hp	ULSD	2019
Incinerator					

EU ID	Building No.	Emissions unit Description (Make/Model)	Rating/Size	Fuel Type	Installation/ Construction Date
9A	FS919	BiRD Incinerator (Therm-Tec/G-30P-1H)	83 lb/hr	Medical/ Infectious Waste	2006
Dual Fuel-Fired CFB Boiler (EU ID 113) and Associated Coal and Ash Handling Equipment					
105[7]	FS840	Limestone Handling System for Boiler No. 1	1,200 acfm	N/A	2016
107[7]	FS840	Sand Handling System	1,600 acfm	N/A	2016
109[7]	FS840	Ash Handling System	1,000 acfm	N/A	2016
110[7]	FS840	Ash Handling System Vacuum	2,000 acfm	N/A	2016
111[7]	FS840	Ash Loadout to Truck	N/A	N/A	2016
113	FS840	Dual Fuel-Fired CFB Boiler	295.6 MMBtu/hr	Coal/Woody Biomass[2]	2016
114[7]	FS840	Dry Sorbent Handling Vent Filter Exhaust	5 acfm	N/A	2016
115[8]	FS840	Unloading Hopper with Grizzly	N/A	N/A	2016
116[8]	FS840	Conveyor CNV-001	N/A	N/A	2016
117[8]	FS840	Magnetic Separator	N/A	N/A	2016
118[8]	FS840	Conveyor CNV-002	N/A	N/A	2016
119[8]	FS840	Surge Bin	N/A	N/A	2016
120[8]	FS840	Vibratory Feeder	N/A	N/A	2016
121[8]	FS840	Hammermill Crusher	N/A	N/A	2016
122[8]	FS840	Conveyor CNV-003	N/A	N/A	2016
123[8]	FS840	Diverter	N/A	N/A	2016
124[8]	FS840	Bucket Elevator CNV-004	N/A	N/A	2016
125[8]	FS840	Bucket Elevator CNV-005	N/A	N/A	2016
126[8]	FS840	Gate Chute	N/A	N/A	2016
127[8]	FS840	En-masse Drag Conveyor CNV-006	N/A	N/A	2016
128[7, 8]	FS840	Coal Silo No. 1 with bin vent	1,650 acfm	N/A	2016
129[7, 8]	FS840	Coal Silo No. 2 with bin vent	1,650 acfm	N/A	2016
130[7, 8]	FS840	Coal Silo No. 3 with bin vent	1,650 acfm	N/A	2016
131[8]	FS840	Feed Chute No. 1	N/A	N/A	2016
132[8]	FS840	Feed Chute No. 2	N/A	N/A	2016
133[8]	FS840	Feed Chute No. 3	N/A	N/A	2016
134[8]	FS840	Gravimetric Feeder No. 1	N/A	N/A	2016
135[8]	FS840	Gravimetric Feeder No. 2	N/A	N/A	2016
136[8]	FS840	Gravimetric Feeder No. 3	N/A	N/A	2016

Notes:

1. The following EUs are not included in Table A because:
   a. EU IDs 1, 2, 5A, 6, 7, 14, 15, 23, 28, and 31 have been permanently removed from the stationary source.
   b. EU ID 36 (State Virology Laboratory emergency engine) is not owned or operated by the UAF, per the UAF notification dated July 13, 2015 – a correction to the January 2015 Off Permit Change Notification.

2. Woody biomass means wood products including raw, clean, untreated wood and could include small amounts of leaves, dirt, bark, and processed pellets made with these materials. Excluded from the definition is construction debris and processed wood pulp.
3. EU 8 is also authorized to combust coal slurry fuel. The unit has not operated on this fuel and will not do so in the future. Emissions estimates for this unit are based on diesel fuel combustion.
4. EU IDs 24 and 26 engine ratings in Hp are calculated from the electrical output assuming 95 pct. efficiency (i.e., Hp = kW * 1.341/ 0.95).
5. EU ID 24 is an emergency diesel engines that has actual and potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). However, it is included in this renewal permit because it is subject to the requirements of NESHAP Subpart ZZZZ (Conditions 86 through 91) and therefore cannot be classified as insignificant per 18 AAC 50.326(d)(1)(A).
6. EU IDs 29 and 34 are emergency diesel engines that have actual and potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). However, they are included in this renewal permit because they are subject to the requirements of NSPS Subpart IIII (Conditions 77 through 82) and therefore cannot be classified as insignificant per 18 AAC 50.326(d)(1)(A).
7. EU IDs 105, 107, 109 – 111, 114, and 128 – 130 have potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). However, they are included in this renewal permit because they are subject to emissions unit-specific emission requirements under AQ0316MSS08 (Conditions 49 through 50) and NSPS Subpart Y (Conditions 72 through 76), and therefore cannot be classified as insignificant per 18 AAC 50.326(d)(1)(C).
8. EU IDs 115 through 136 have actual and potential emissions less than the significant emissions thresholds in 18 AAC 50.326(e). However, they are included in this renewal permit because they are subject to the requirements of NSPS Subpart Y (Conditions 72 through 75) and therefore cannot be classified as insignificant per 18 AAC 50.326(d)(1)(A).

[18 AAC 50.326(a)]
[40 C.F.R. 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 3, 4, 8, 17 – 22, 24 – 27, 29, 34, 35, 105, 107, 109 - 111, and 114 – 136 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 C.F.R. 71.6(a)(1)]

1.1. For EU IDs 3 and 4, burn gas as the primary fuel. Monitoring for these emissions units shall consist of a statement in each operating report required under Condition 142 indicating whether each of these emissions units burned gas as the primary fuel during the period covered by this report. If any of these units operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition 1.2 or Condition 13, as applicable.

1.2. For EU IDs 3 and 4 (when burning liquid fuel) and EU ID 8, the Permittee may use continuous opacity monitoring system (COMS) to monitor compliance with the visible emissions standard. When using a COMS, the Permittee shall:

a. Operate and maintain the COMS in accordance with the manufacturer's written requirements and recommendations;

b. Comply with the monitoring requirements of Condition 19.2, except as follows:

(i) Conditions 19.2.a through 19.2.d must be performed at least quarterly; this frequency may be reduced if

(A) the Permittee demonstrates, by applying measurable criteria to the results of quarterly audits, that quarterly audits are not necessary; and

(B) the Department gives written approval for the reduction in frequency.

c. If any of the COMS on EU IDs 3, 4, and 8 is out of service for more than 24 hours, or has failed the performance audit, then after the 24-hour period and during each day that the emissions unit is in operation until the COMS is in good working condition, the Permittee shall monitor, record, and report in accordance with Condition 13 for EU IDs 3 and 4 and Conditions 3 through 5 for EU ID 8.

d. Record and report in accordance with Conditions 20.1 through 20.4, as they apply to EU IDs 3, 4, and 8.

1.3. For EU ID 8 (if opting not to monitor by COMS) and EU IDs 17 – 22, 25 – 27, and 35, monitor, record and report in accordance with Conditions 3 through 5.

1.4. For each of EU IDs 24 and 34, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e)[1] during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 143 for the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 142 if any of EU IDs 24 and 34 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.

1.5. For EU IDs 105, 107, 109, 110, and 114, comply with the requirements of Conditions 49.3 through 49.5. If the 18 consecutive minutes of the initial Method 9 observations conducted under Condition 49.3.d(ii) do not result in excess of the visible emissions standard in Condition 1, comply with Condition 1.7.

1.6. For EU ID 111, comply with the requirements of Conditions 50.1 through 50.3. If all ash loadout operations of EU ID 111 were done with enclosure, comply with Condition 1.7.

1.7. For EU IDs 29, 105, 107, 109 - 111, and 114, monitoring shall consist of an annual compliance certification under Condition 143 for the visible emissions standard based on reasonable inquiry.

1.8. For EU IDs 115 – 136, demonstrate compliance with the State visible emissions standard by complying with the applicable NSPS Subpart Y opacity standard in Condition 72 and associated monitoring and recordkeeping requirements in Conditions 73 through 75. Include with the operating report required under Condition 142 the excess emissions report required under Condition 76.

[Conditions 6 & 6.2, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

2. Incinerator Visible Emissions. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, through the exhaust of EU ID 9A, to reduce visibility by more than 20 percent averaged over any six consecutive minutes.

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

2.1. Monitor, record, and report in accordance with Conditions 3 through 5.

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

[1] Operational hours per rolling 12-month period corresponding to 2 TPY NO_x (worst-case significant emissions threshold listed in 18 AAC 50.326(e)) based on the emission factors used to calculate Potential to Emit (PTE) operating at full load, are as follows: 1,792 hours for EU ID 24; 1, 075 hours for EU ID 28; and 1,501 hours for EU ID 34.

Visible Emissions MR&R

Liquid Fuel-Burning Equipment (EU IDs 8, 17 – 22, 24 – 27, 29, 34 and 35) and Incinerator (EU ID 9A)

3. Visible Emissions Monitoring. When required by any of Conditions 1.2.c, 1.3, 1.4, and 2.1, or in the event of replacement[2] during the permit term, the Permittee shall observe the exhausts of EU IDs 8, 9A, 17 – 22, 24 – 27, 29, 34, and 35 for visible emissions using either the Method 9 Plan under Condition 3.3 or the Smoke/No-Smoke Plan under Condition 3.4.

3.1. The Permittee may change visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 3.5.

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

3.3. **Method 9 Plan.** For all observations in this plan, observe emissions unit exhaust, following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations. [3]

a. First Method 9 Observation. Except as provided in Conditions 3.2 and 3.5.c(ii), observe exhausts of EU IDs 8, 9A, 17 – 22, 24 – 27, 29, 34, and 35 according to the following criteria:

(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 3.4.

(ii) Except as provided in Condition 3.3.a(iii), for any of EU IDs 8, 9A, 17 through 22, 25 – 27, and 35, observe exhaust within six months after the effective date of this permit.

(iii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[4] Except as provided in Condition 3.3.e, after the First Method 9 observation:

(A) For EU ID(s) 8, 9A, 17 through 22, 25 – 27, and 35, continue with the monitoring schedule of the replaced emissions unit; and

(B) For EU ID(s) 24 and 34 comply with Condition 1.4.

[2] *"Replacement,"* as defined in 40 C.F.R. 51.166(b)(32).
[3] Visible emissions observations are not required during emergency operations.
[4] "*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.

(iv) For each of EU IDs 24 and 34, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under Condition 1.4; 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 3.3.a, 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 3.3.b unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations

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

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

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 3.3.c, unless a six-minute average is greater than 15 percent and one or more individual observations are greater than 20 percent, perform 18-minute observations:

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

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

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more 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 3.3.b, and continue monitoring in accordance with the Method 9 Plan.

3.4. **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 the emissions unit operates for a minimum of 30 days.

b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for those 30 consecutive operating days as required in Condition 3.4.a, observe the emissions unit exhaust at least once in every calendar month that an emissions unit operates.

c. Smoke Observed. If visible emissions are observed, comply with Condition 3.5.

3.5. **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 3.4, then the Permittee shall either follow the Method 9 Plan of Condition 3.3 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 smoke; and

c. After completing the actions required under Condition 3.5.a,

(i) conduct smoke/no smoke observations in accordance with Condition 3.4

(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 3.4.a is completed; and

(B) continue as described in Condition 3.4.b; or

(ii) if the actions taken under Condition 3.5.a do not eliminate the visible emissions, or if subsequent visible emissions are observed under the schedule of Condition 3.5.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time take corrective action that eliminates visible emissions and restart the Smoke/No Smoke Plan under Condition 3.4.a.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

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

4.1. For all Method 9 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 14;

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

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

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emission Observation Form in Section 14; and

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

b. To determine the six-minute average opacity,

(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- and 18-consecutive-minute average opacities observed.

4.2. If using the Smoke/No Smoke Plan of Condition 3.4, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. 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 C.F.R. 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 142 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 under Condition 142 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 141:

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 that the monitoring was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

Particulate Matter Emissions Standard

6. Industrial Process and Fuel-Burning Equipment PM Emissions. The Permittee shall not cause or allow particulate matter emitted from EU IDs 3, 4, 8, 17 – 22, 24 – 27, 29, 34, 35, 105, 107, 109 – 111, and 114 – 136 listed in Table A to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

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

6.1. For the dual fuel fired boilers, EU IDs 3 and 4, the Permittee shall comply with Condition 1.1.

6.2. For the liquid fuel burning engines, EU IDs 8, 26, 27, and 35, monitor, record and report in accordance with Conditions 7 through 9.

6.3. For the liquid fuel burning boilers and dryer, EU IDs 17 – 22, and 25, monitor, record and report in accordance with Conditions 10 through 12.

6.4. For each of EU IDs 24 and 34, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e) [5] during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition 143 for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition 142 if any of EU IDs 24 and 34 reaches any of the significant emissions thresholds and monitor, record and report in accordance with Conditions 7 through 9 for the remainder of the permit term for that emissions unit.

6.5. For EU IDs 105, 107, 109, 110, and 114, comply with the requirements of Conditions 49.3 through 49.5. If a PM source test is triggered per Condition 49.3.e and the source test results do not exceed the PM emissions standard in Condition 6, comply with Condition 6.7.

6.6. For EU ID 111, comply with the requirements of Conditions 50.1 through 50.3. If all ash loadout operations of EU ID 111 were done with enclosure, comply with Condition 6.7.

6.7. For EU IDs 29, 105, 107, 109 - 111, and 114, the Permittee must annually certify compliance under Condition 143 for the PM emissions standard based on reasonable inquiry.

[5] Operational hours per rolling 12-month period corresponding to 2 TPY NO_x (worst-case significant emissions threshold listed in 18 AAC 50.326(e)) based on the emission factors used to calculate Potential to Emit (PTE) operating at full load, are as follows: 1,792 hours for EU ID 24; 1, 075 hours for EU ID 28; and 1,501 hours for EU ID 34.

6.8. For EU IDs 115 – 136, demonstrate compliance with the State PM standard by complying with the applicable NSPS Subpart Y opacity and PM standards in Condition 72 and associated monitoring and recordkeeping requirements in Conditions 73 through 76. Include a summary of the results of any particulate matter source test after the Permittee receives the final test report in the next operating report required by Condition 142.

[Conditions 7.2 – 7.6, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j), 50.326(j), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

Particulate Matter (PM) MR&R

Liquid Fuel-Burning Engines (EU IDs 8, 24, 26, 27, 34, and 35)

7. PM Monitoring. The Permittee shall conduct source tests on EU IDs 8, 26, 27, and 35, and EU IDs 24 and 34 (when required by Condition 6.4) to determine the concentration of PM in the exhaust of each emissions unit as follows:

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

7.1. If the result of any Method 9 observation conducted under Condition 3.3 for any of EU IDs 8, 24, 26, 27, 34 and 35 or the opacity readings in Condition 1.2 (for EU ID 8 when operating COMS) is greater than the criteria of Condition 7.2.a or Condition 7.2.b, the Permittee shall, within six months of that Method 9 observation, either:

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

b. except as exempted in Condition 7.4, conduct a PM source test according to requirements set out in Section 9.

7.2. Take corrective action or conduct a PM source test, in accordance with Condition 7.1, if any Method 9 observation under Condition 3.3 or the COMS readings in Condition 1.2 result in an 18-minute average opacity greater than

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

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

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

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

a. a PM 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 3.3) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 7.2.

8. PM Recordkeeping. The Permittee shall comply with the following:

8.1. Within 30 calendar days after the effective date of this permit, the Permittee shall record the exhaust stack diameters of EU IDs 24, 26, 27, 29, 34, and 35.

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

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

9. PM Reporting. The Permittee shall report as follows:

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

9.2. In each operating report under Condition 142, include:

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

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

9.3. Report the stack diameter(s) of EU IDs 24, 26, 27, 29, 34 and 35 in the next operating report under Condition 142 following the deadline in Condition 8.1 for collecting the stack diameter records.

9.4. Report in accordance with Condition 141:

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

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

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

Liquid Fuel- Burning Boilers (EU IDs 3, 4, 17 – 22) and Dryer (EU ID 25)

10. PM Monitoring. The Permittee shall conduct source tests on EU IDs 3 and 4 (if required under Condition 13.3.a) and EU IDs 17 – 22 and 25 to determine the concentration of PM in the exhaust of each emissions unit, as follows:

10.1. If the result of any Method 9 observation conducted under Condition 3.3 for any of EU IDs 3, 4, 17 – 22, and 25 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 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than an 18-minute average opacity of 20 percent; or

b. except as exempted under Condition 10.3, conduct a PM source test according to the requirements in Section 9.

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

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

a. a source test on that unit has shown compliance with the PM standard during the 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 3.3) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 10.1.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

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

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

12. PM Reporting. The Permittee shall report as follows:

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

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

12.2. In each operating report required by Condition 142, include:

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

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

12.3. Report in accordance with Condition 141 any time the results of a source test exceed the PM emission standard in Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

Visible Emissions & PM MR&R

Dual Fuel- Burning Equipment (EU IDs 3 and 4)

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

13.1. For any of EU IDs 3 and 4 that does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual certification under Condition 143 based on reasonable inquiry.

13.2. For any of EU IDs 3 and 4, notify the Department and begin monitoring the affected emissions unit in accordance with Condition 13.3 no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel; or for an emissions unit with intermittent back-up fuel use, during the next scheduled operation on back-up liquid fuel.

13.3. When required to do so by Condition 13.2, observe the emissions unit exhaust, following 40 C.F.R. 60, Appendix A-4 Method 9, for 18-minutes to obtain 72 consecutive 15-second opacity observations, or by using a COMS as described in Condition 1.2.

a. If the observation exceeds the limit in Condition 1, monitor as described in Condition 10.

b. If the observation does not exceed the limit in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each

subsequent multiple of 400 hours on back-up liquid fuel during a calendar year[6].

13.4. Keep records and report in accordance with Conditions 4, 5, 11 and 12.

13.5. Report under Condition 141 if the Permittee fails to comply with Conditions 13.2, 13.3 or 13.4

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i) - (iii)]

Sulfur Compound Emissions Standard

14. Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as SO_2, from EU IDs[7] 3, 4, 8, 17 – 22, 24 – 29, 34, and 35 to exceed 500 ppm averaged over three hours.

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

Sulfur Compound MR&R

For Fuel Oil[8] (EU IDs 3, 4, 8, 17 – 22, 24 – 27, 29, 34, and 35)

15. Sulfur Compound MR&R. The Permittee shall monitor, record, and report, as follows:

15.1. For EU ID 25 and before June 9, 2021 for EU IDs 8, 24, and 26, the Permittee shall

a. Comply with either Condition 15.1.a(i) or Condition 15.1.a(ii):

(i) For each shipment of fuel:

(A) If the fuel grade requires a sulfur content 0.5 percent by weight ($wt\%S_{fuel}$) or less, keep receipts that specify fuel grade and amount; or

(B) If the fuel grade does not require a sulfur content 0.5 $wt\%S_{fuel}$ or less, keep receipts that specify fuel grade and amount and

(1) test the fuel for sulfur content; or

(2) 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; or

(ii) Test the sulfur content of the fuel in each storage tank that supplies fuel to EU IDs 3, 4, 8, and 24 – 26 at least monthly.

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

[7] EU IDs 105, 107, 109 – 111, and 114 through 136 are industrial processes but are not included in Condition 14 because these units do not process materials or contain equipment that generate sulfur compound emissions.

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

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

c. If a shipment of fuel contains greater than 0.75 wt%S_{fuel} or if the results of a fuel sulfur content test indicate that the fuel contains greater than 0.75 wt%S_{fuel}, the Permittee shall calculate SO_2 emissions in parts per million (ppm) using either the SO_2 material balance calculation in Section 15 or Method 19 of 40 C.F.R. 60, Appendix A-7, adopted by reference in 18 AAC 50.040(a)(3).

d. The Permittee shall report as follows:

(i) If SO_2 emissions calculated under Condition 15.1.c exceed 500 ppm, the Permittee shall report under Condition 141. When reporting under this condition, include the calculation under Section 15.

(ii) The Permittee shall include in the report required by Condition 142

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

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

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

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

15.2. For EU IDs 3 and 4 (when burning diesel fuel), to ensure compliance with Condition 14, the Permittee shall, when applicable, comply with the fuel sulfur content limits in Conditions 42.1 and 44.1 and associated MR&R requirements.

15.3. For EU IDs 8, 24, and 26, to ensure compliance with Condition 14, the Permittee shall, beginning no later than June 9, 2021, comply with the fuel sulfur content limit in Condition 43.2 and associated MR&R requirements.

[Conditions 5 – 9, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

15.4. For EU IDs 17 – 22, to ensure compliance with Condition 14, the Permittee shall comply with the fuel sulfur content limit in Conditions 30 and 40.1 and associated MR&R requirements under Conditions 30.1 and 40.2.

[Condition 9, Minor Permit No. AQ0316MSS04, February 15, 2013]
[Condition 8, Minor Permit No. AQ0316MSS07, DATE]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

15.5. For EU IDs 27, 29, 34, and 35, to ensure compliance with Condition 14, the Permittee shall comply with the fuel sulfur content limit required by NSPS Subpart IIII in Condition 79 and associated MR&R requirements in Conditions 81.5, 82.1, and 82.2.

[40 C.F.R. 60.4207(b) , Subpart IIII]
[40 C.F.R. 80.510(b)(1)(i) & (b)(2)]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

For Fuel Gas (EU IDs 3 and 4)

16. For EU IDs 3 and 4 (when burning fuel gas), to ensure compliance with Condition 14, the Permittee shall comply with the fuel sulfur content limit in Condition 42.2 and associated MR&R requirements Condition 46.

[Conditions 5 & 10, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

Insignificant Emissions units

17. For emissions units at the stationary source that are insignificant as defined in 18 AAC 50.326(d)-(i) that are not listed in this permit, the following apply:

17.1. **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)]

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

[18 AAC 50.055(b)(1)]

17.3. **Sulfur Compound 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)]

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

a. Submit the compliance certifications of Condition 143 based on reasonable inquiry;

b. Comply with the requirements of Condition 124; and

c. Report in the operating report required by Condition 142 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; and

d. No other monitoring, recordkeeping or reporting is required for insignificant emissions units to demonstrate compliance with the emissions standards under Conditions 17.1, 17.2, and 17.3.

[18 AAC 50.346(b)(4)]

Section 4. State Emission Standards for Coal-Fired Boilers

18. Coal-Fired Boiler Visible Emissions Standards. The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU IDs 113 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 C.F.R. 71.6(a)(1)]

19. Coal-Fired Boiler Visible Emissions Monitoring – Procedures for Operation of a Continuous Opacity Monitoring System (COMS). The Permittee shall monitor visible emissions using a Continuous Opacity Monitoring System (COMS). The Permittee shall comply with the following procedures when monitoring visible emissions using a COMS:

19.1. Operate and maintain the COMS in accordance with the manufacturer's written requirements and recommendations and as set out in Condition 68.2;

19.2. Conduct performance audits that includes the following elements as described in the Department's *Performance Audits for COMS* (see Section 5), adopted by reference in 18 AAC 50.030, at least once in each 12-month period:

a. optical alignment;

b. zero and upscale response assessment;

c. zero compensation assessment;

d. calibration error check; and

e. zero alignment assessment.

[Conditions 6.1 and 6.3, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(i) & (c)(6)]

19.3. If a COMS is out of service for more than 24 hours, or has failed the performance audit, then after the 24-hour period and during each day that the emissions unit is in operation until the COMS is in good working condition, the Permittee shall observe opacity of the emissions unit's exhaust in accordance with the Condition 3.3 or Condition 3.4.

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

20. Coal Fired Boiler Visible Emissions Recordkeeping and Reporting. The Permittee shall comply with the following VE recordkeeping and reporting requirements:

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

20.1. Maintain records of all calculated one-minute average opacity values for COMS and records of the COMS performance audits required under Condition 19.2, according to the requirements of Condition 137.

20.2. Maintain records of information required under Condition 4.1.a or Condition 4.2 for all Method 9 visible emissions or Smoke/No Smoke monitoring conducted pursuant to Condition 19.3.

20.3. If any of the COMS is malfunctioning or non-operable for three or more consecutive days, the Permittee shall notify the Department by telephone or in writing on the fourth day, indicating the cause of failure and anticipated time required to repair or replace the instrument.

20.4. Report under Condition 141 if the visible emissions standard in Condition 18 was exceeded.

21. Coal Fired Boiler Particulate Matter (PM) Emissions. The Permittee shall not cause or allow particulate matter (PM) emitted from EU ID 113 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 C.F.R. 71.6(a)(1)]

22. Coal Fired Boiler PM Monitoring, Recordkeeping, and Recordkeeping. For EU ID 113, the Permittee shall do the following:

22.1. Comply with Conditions 34.1 and 34.2.

22.2. Conduct source tests for PM by complying with Condition 100 and submit the source test plan described in Condition 100.1 as required by Condition 133. Report the source test results as required by Condition 135.

22.3. Submit a report in accordance with Condition 141 whenever any of the following situations occur:

a. When the results of a source test exceed the particulate matter emission limit in Condition 21; and

b. If a bag leak detector system malfunctions or becomes inoperable for four or more consecutive hours. In the report, identify the boiler, the cause of failure, and the anticipated time required to repair the device.

22.4. Include a summary of the results of any particulate matter source test after the Permittee receives the final test report in the next operating report required by Condition 142.

[Condition 7.1, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3) & (c)(6)]

23. Coal Fired Boiler Sulfur Compound Emissions. The Permittee shall not cause or allow sulfur compound emissions, expressed as sulfur dioxide, from EU ID 113 to exceed 500 ppm averaged over a period of three hours.

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

24. Coal Fired Boiler Sulfur Compound Emissions Monitoring. The Permittee shall monitor sulfur compound emissions from EU ID 113 as follows:

24.1. Upon receipt of each shipment of fuel at the stationary source, the Permittee shall

a. obtain a signed statement from the supplier with the following information:

(i) the percent sulfur by weight of the coal;

(ii) the method of analysis; and

(iii) statement that the analysis was representative of the coal shipped.

b. For EU ID 113, if valid representative results are not available from the supplier or if the coal contains more than 0.4 percent sulfur by weight, measure the SO_2 emission concentrations by complying with Condition 67.1 and calculate the three-hour averages while combusting the coal described in this condition.

[Condition 8.1, Minor Permit No. AQ0316MSS06 Revision 2, April 4, 2017]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(i) & (c)(6)]

25. Coal Fired Boiler Sulfur Compound Emissions Recordkeeping. The Permittee shall keep records of the sulfur contents of each shipment of coal, and each three-hour average SO_2 concentration calculated under Condition 24.1.b.

[Condition 8.2, Minor Permit No. AQ0316MSS06 Revision 2, April 4, 2017]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]

26. Coal Fired Boiler Sulfur Compound Emissions Reporting. The Permittee shall

26.1. Submit a report in accordance with Condition 141 whenever a three-hour exhaust concentration calculated pursuant to Condition 24.1.b is greater than 500 ppm.

26.2. Include a summary of the following information covering the reporting period in each operating report required by Condition 142:

a. the sulfur contents of each shipment of coal received; and

b. any three-hour SO_2 concentration averages over three hours required under Condition 24.1.b.

[Condition 8.3, Minor Permit No. AQ0316MSS06 Revision 2, April 4, 2017]
[18 AAC 50.040(j)(4) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(3)(iii) & (c)(6)]

Section 5. Performance Audits for COMS

27. Performance Audits. The following elements shall be included in performance audits for Continuous Opacity Monitoring Systems (COMS), unless the Department gives written approval for unit-specific audit procedures.

[18 AAC 50.030(9), 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]

27.1. **Optical Alignment Assessment.** The status of the optical alignment of the monitor components shall be checked and recorded according to the procedures specified by the monitor manufacturer. Realign as necessary.

27.2. **Zero and Upscale Response Assessment.** The zero and upscale response errors shall be determined and recorded according to the calibration drift procedures of 8.1(4)(i) and (ii) in 40 C.F.R. 60, Appendix B, Performance Specification 1 (PS-1), adopted by reference in 18 AAC 50.040(a). The error is defined as the difference (in percent opacity) between the correct value and the observed value for the zero and high-level calibration checks.

27.3. **Zero Compensation Assessment.** The value of the zero compensation applied at the time of the audit shall be calculated as equivalent opacity, corrected to stack exit conditions as necessary, according to the procedures specified by the manufacturer. Record the compensation applied to the effluent recorded by the monitor system.

27.4. **Calibration Error Check.** Conduct a three-point calibration error test using three calibration attenuators that produce outlet path-length corrected, single-pass opacity values shown in ASTM D 6216-98, Section 7.5, adopted by reference in 18 AAC 50.035(c). If the applicable limit is less than 10 percent opacity, use attenuators as described in ASTM D 6216-98, Section 7.5 for applicable standards of 10 to 19 percent opacity. Confirm the external audit device produces the proper zero value on the COMS data recorder. Separately, insert each calibration attenuator (low, mid, and high-level) into the external audit device. While inserting each attenuator, (1) ensure that the entire light beam passes through the attenuator; (2) minimize interference from reflected light; and (3) leave the attenuator in place for at least two times the shortest recording interval on the COMS data recorder. Make a total of five non-consecutive readings for each attenuator. At the end of the test, correlate each attenuator insertion to the corresponding value from the data recorder. Subtract the single-pass calibration attenuator values corrected to the stack exit conditions from the COMS responses. Calculate the arithmetic mean difference, standard deviation, and confidence coefficient of the five measurements value using equations 1-3, 1-4, and 1-5 of PS-1. Calculate the calibration error as the sum of the absolute value of the mean difference and the 95 percent confidence coefficient for each of the three test attenuators using equations 1-6 of PS-1. Report the calibration error test results for each of the three attenuators.

27.5. **Zero Alignment Assessment.** Compare the COMS simulated zero to the actual clear path zero of the installation. The assessment may be conducted in conjunction with, but prior to, other performance audit elements.

a. **Primary Zero Alignment Method**. The primary zero alignment shall be performed under clear path conditions. This may be accomplished if the process is not operating and the monitor path length is free of particulate matter or the monitor may be removed from its installation and set up under clear path conditions. The absence of particulate matter shall be demonstrated prior to conducting the test at the installed site. No adjustment to the monitor is allowed other than the establishment of the proper monitor path length and correct optical alignment of the monitor components. Record the monitor response to a clear path condition and to the monitor's simulated zero condition as percent opacity corrected to stack exit conditions as necessary. For monitors with automatic zero compensation, disconnect or disable the zero compensation mechanism or record the amount of correction applied to the monitor's simulated zero condition. The response difference in percent opacity to the clear path and simulated zero conditions shall be recorded as the zero alignment error. Adjust the monitor's simulated zero device to provide the same response as the clear path condition. Restore the COMS to its operating mode.

b. **Alternate Zero Alignment Method.** Monitors capable of allowing the installation of an external, removable zero-jig may use the equipment for an alternative zero alignment provided that the zero-jig setting is established for the monitor pathlength and recorded for the specific COMS by comparison of the COMS responses to the installed zero-jig and to the clear path condition. The zero-jig is shown to be capable of producing a consistent zero response when it is repeatedly (i.e., three consecutive installations and removals prior to conducting the final zero alignment check) installed on the COMS. The zero-jig setting shall be permanently set at the time of the initial COMS zeroing to the clear path zero value and protected when not in use to ensure that the setting equivalent to zero opacity does not change. The zero-jig setting shall be checked and recorded prior to initiating the zero alignment. Emissions unit owners and operators that employ a zero-jig shall perform a primary zero alignment audit once every three years.

c. **Failure Criteria for Zero Alignment.** The zero alignment is acceptable if the error at the simulated zero check is less or equal than 2 percent opacity prior to adjustment (i.e., if the zero alignment error is 0 percent the analyzer does not need servicing solely based on this test).

Section 6. Title I Permit Requirements

ORLs Established in Minor Permit No. AQ0316MSS03

To Avoid Minor Permitting under 18 AAC 50.502(c)(3) for Nitrogen Oxides (NO_x) (EU ID 27)

28. The Permittee shall limit NO_x emissions from EU ID 27 to no more than 10 tons per rolling 12-month period.

28.1. To ensure compliance with the limit in Condition 28, the Permittee shall not exceed 4,380 hours of operation of EU ID 27 in a rolling 12-month period.

28.2. Monitor, record, and report as follows:

a. Prior to initial startup, install and operate a non-resettable hour meter for recording operating hours for EU ID 27.

b. Monitor and record the monthly operating hours of EU ID 27.

c. By the 15th of each calendar month, add the previous month's total operating hours for EU ID 27 to the previous 11 months' total operating hours for EU ID 27.

d. If the 12-month rolling total operational hours for EU ID 27 recorded in Condition 28.2.c exceeds the limit listed in Condition 28.1, report as excess emissions described in Condition 141.

e. Include the records of the monthly and 12-month rolling totals recorded in Conditions 28.2.b and 28.2.c in the operating report required under Condition 142.

[Condition 4, Minor Permit No. AQ0316MSS03, January 16, 2013]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORLs Established in Minor Permit No. AQ0316MSS04

To Avoid Classification as Major HAPs source under 18 AAC 50.316 (EU ID 9A)

29. For EU ID 9A, the Permittee shall limit the amount of waste combusted to 109 tons per rolling 12-month period to avoid being classified as a major source for HAPs for Hydrochloric Acid (HCl).

29.1. Monitor, record, and report as follows:

a. Weigh and record the weight of each batch of waste combusted in EU ID 9A listed in Table A.

b. By the 15th of each calendar month calculate and record the total quantity of waste burned for the previous month in tons.

c. Report, in the operating report under Condition 142, the 12 most recent monthly records obtained under Condition 29.1.b and the rolling 12-month quantity of waste combusted, as the sum of the 12 most recent monthly records during the reporting period, obtained under Condition 29.1.b.

d. Report, in the excess emissions reports required under Condition 141, whenever the limit in Condition 29 is exceeded.

[Condition 8, Minor Permit No. AQ0316MSS04, February 15, 2013]
[Conditions 12.3a – 12.3c, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

To Avoid PSD Review under 18 AAC 50.306 and Minor Permitting under 18 AAC 50.502(c)(3) for SO_2 (EU IDs 19 – 21)

30. For EU IDs 19 – 21, the Permittee shall use ultra-low sulfur diesel (ULSD) and must ensure that the fuel sulfur content of the liquid fuel consumed does not exceed 0.0015 percent sulfur by weight ($wt\%S_{Fuel}$).

30.1. Monitor, record and report as follows:

a. For each shipment of fuel delivered to the stationary source, obtain and record the weight percent sulfur, as determined from:

(i) ASTM approved testing methods such as D129-00; D1552-98; D2622-98; D4294-98; and D4045-99;

(ii) certified test results from supplier or refinery; or

(iii) fuel grade delivery receipts.

b. Report in the operating report required by Condition 142, a list of all fuel grades received, under Condition 30.1.a, at the stationary source during the reporting period.

c. Report in accordance with the excess emissions and permit deviation reports required in Condition 141, the fuel sulfur content of any shipment recorded under Condition 30.1.a that exceeds 0.0015 $wt\%S_{Fuel}$.

[Condition 9, Minor Permit No. AQ0316MSS04, February 15, 2013]
[Condition 5.2, Minor Permit No. AQ0316MSS07, DATE]
[Condition 9, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORLs Established in Minor Permit No. AQ0316MSS05

To Avoid PSD Review for NO_x and SO_2 under 18 AAC 50.306 (EU IDs 4 and 8)

31. The Permittee shall limit the combined SO_2 emissions from EU IDs 4 and 8 to less than 40 tons per year.

31.1. Monitor, record, and report as follows:

a. Measure and record the monthly fuel consumption of diesel fuel in EU IDs 4 and 8 using a totalizing fuel flow meter accurate to within one percent or using delivery receipts and change in inventory.

b. No later than the 15th day of each month, calculate and record the previous month's SO_2 emissions using Equation 1.

Equation 1 $$SO_2 = \left[(FC_4 + FC_8)(\rho)\left(\%S/100\right)(2)\right]\left(1/2000\right)$$

Where:

SO_2	=	*SO_2 emissions (ton/month)*
FC_4	=	*Diesel fuel consumption for EU ID 4 (gal/month), recorded under the provisions described in Condition 31.1.a*
FC_8	=	*Diesel fuel consumption for EU ID 8 (gal/month), recorded under the provisions described in Condition 31.1.a*
ρ	=	*Density of the diesel fuel (lb/gal)*
$\%S$	=	*Most recent sulfur content of the diesel fuel, percent by weight, recorded under the provisions described in Condition 15.1*
100	=	*Conversion factor from percent to a fraction*
2	=	*Molecular weight ratio of SO_2 to S*
2000	=	*Conversion factor from lbs to tons*

c. Report in the operating report as described in Condition 142, the 12 consecutive-month rolling total fuel consumption and SO_2 emissions (TPY) for each 12 month period during the reporting period.

d. Report excess emissions and permit deviation in accordance with Condition 141, when the combined 12 consecutive month rolling total SO_2 emissions for EU IDs 4 and 8 equal or exceed 40 tons.

[Condition 2, Minor Permit No. AQ0316MSS05, August 4, 2016]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

32. The Permittee shall limit the combined NO_x emissions from EU IDs 4 and 8 to less than 40 tons per year.

32.1. Monitor, record, and report as follows:

a. Install low NO_x burners on EU IDs 3 and 4 prior to operating with natural gas fuel.

b. Measure and record the monthly natural gas consumption of EU ID 4 in million standard cubic feet per month (MMscf/month) by using a totalizing fuel flow meter certified accurate to within ± one percent.

c. No later than the 15th of each month, calculate and record the previous month's total NO_x emissions as follows:

(i) For EU ID 8 diesel fuel operation without NO_x controls, calculate and record the monthly total uncontrolled NO_x emissions using Equation 2.

Equation 2 $$\boldsymbol{NO_x = (UFC_8 \times 0.571) \times \left(^{1}/_{2000}\right)}$$

Where:

NO_x = *Uncontrolled NO_x emissions (ton/month)*

UFC_8 = *Diesel fuel consumption for EU ID 8 (gal/month) while operating without NO_x controls, recorded under the provisions described in Condition 31.1.a*

0.571 = *Uncontrolled NO_x emission factor for EU ID 8 (lb/gal) while firing diesel, based on emission factors provided in the February 1, 2002 source test report and assuming 90 percent reduction in NO_x emissions from the NO_x Selective Catalytic Reduction (SCR) system in use during source testing. If a subsequent source test without NO_x controls is conducted and approved by the Department, the Permittee shall use the emission factor in lb/gal from the subsequent source test upon the approval date of the source test.*

2000 = *Conversion factor from lbs to tons*

(ii) For EU ID 8 diesel operation with NO_x controls, calculate and record the monthly total controlled NO_x emissions using Equation 3.

Equation 3 $$\boldsymbol{NO_x = (CFC_8 \times 0.057) \times \left(^{1}/_{2000}\right)}$$

Where:

NO_x = *Controlled NO_x emissions (ton/month)*

CFC_8 = *Diesel fuel consumption for EU ID 8 (gal/month) while operating with NO_x controls, recorded under the provisions described in Condition 31.1.a*

0.057 = *Controlled NO_x emission factor for EU ID 8 (lb/gal) while firing diesel, based on emission factors provided in the February 1, 2002 source test report. If a subsequent source test with NO_x controls is conducted and approved by the Department, the Permittee shall use the emission factor in lb/gal from the subsequent source test upon the approval date of the source test.*

2000 = *Conversion factor from lbs to tons*

(iii) For EU ID 4, calculate and record the monthly total NO_x emissions using Equation 4.

Equation 4 $$\boldsymbol{NO_x = [(LFC_4) \times (0.024) + (GFC_4) \times (140)]\left(^{1}/_{2000}\right)}$$

Where:

NO_x = *NO_x emissions (ton/month)*

LFC_4 = Diesel fuel consumption for EU ID 4 (gal/month), recorded under the provisions described in Condition 31.1.a

0.024 = NO_x (fuel oil) combustion emission factor for EU 4 (lb/gal),based on emission factor listed in AP-42, Table 1.3-1.

GFC_4 = Natural gas consumption for EU ID 4 (MMscf/month)

140 = NOx (natural gas) combustion emission factor for EU ID 4 (lb/MMscf), based on AP-42 Table 1.4-1 for Low NOx burner technology. If a source test is conducted and approved by the Department, the Permittee shall use the emission factor in lb/MMscf from the source test upon the approval date.

2000 = Conversion factor from lbs to tons

d. No later than the 15th day of each month, add the monthly NO_x emissions calculated under Condition 32.1.c to obtain the monthly total for EU IDs 4 and 8, combined. Add this monthly total to the total for the previous 11 months for EU IDs 4 and 8, combined, to determine the 12 consecutive-month total.

e. Report in the operating report described in Condition 142, the 12 consecutive-month rolling total fuel consumption and NO_x emissions (TPY) for each 12 month period ending during the reporting period.

f. Report excess emissions and permit deviation in accordance with Condition 141 when the combined 12 consecutive-month rolling total of NO_x emissions for EU IDs 4 and 8 equals or exceeds 40 tons.

[Condition 3, Minor Permit No. AQ0316MSS05, August 4, 2016]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

ORLs Established in Minor Permit Nos. AQ0316MSS06 Rev. 2 and AQ0316MSS09

To Avoid $PM_{2.5}$ Nonattainment Area New Source Review (NA NSR) (EU ID 113)

33. The Permittee shall limit $PM_{2.5}$ emissions from EU ID 113 to no greater than 15.5 tons per 12-month rolling period.

[Condition 4, Minor Permit No. AQ0316MSS09, DATE]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

34. To demonstrate compliance[9] with the $PM_{2.5}$ limit in Condition 33, the Permittee shall:

[Condition 5, Minor Permit No. AQ0316MSS09, DATE]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]

[9] Except for Condition 34.4.b(i), the compliance demonstration requirements specified in Conditions 34.3 through 34.6 are similar to the requirements under NESHAP Subpart JJJJJJ for affected emissions unit subject to the subpart's PM standard and using a fabric filter to control PM emissions for compliance demonstration.

34.1. Inspect the baghouse serving EU ID 113 prior to initial start-up, and within 13 months of the previous inspection. Operate and maintain the baghouses according to the manufacturer's guidelines.

[Condition 5.1, Minor Permit No. AQ0316MSS09, DATE]

34.2. Install, calibrate, maintain, and operate a triboelectric bag leak detector on the baghouse serving EU ID 113, in accordance with Conditions 34.3 and 34.4. The triboelectric detector shall be in full operation at all times that EU ID 113 is in operation.

[Condition 5.2, Minor Permit No. AQ0316MSS09, DATE]

34.3. For EU ID 113 using a fabric filter to control PM emissions, the Permittee must meet the following operating limits, except during startup and shutdown:

a. Install and operate a bag leak detection system according to Condition 34.4; and

b. Operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period.

[Condition 5.3, Minor Permit No. AQ0316MSS09, DATE]
[40 C.F.R. 63.11211(b)(4), Table 3 (item 1b), and Table 7 (item 2), Subpart JJJJJJ]

34.4. Install, calibrate, maintain, and continuously operate the bag leak detection system as specified in Conditions 34.4.a through 34.4.h.

a. Install and operate a bag leak detection system for each exhaust stack of the fabric filter.

b. Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with EPA-454/R-98-015 (*Fabric Filter Bag Detection Guidance, September 1997,* incorporated by reference in 40 C.F.R. 63.14), except as provided for in Condition 34.4.b(i):

(i) For filter bag leaks monitoring and corrective measures, use the procedures described in Section 5.2.2 of the *Broken Bag Detection Procedure* in Appendix A, in lieu of Sections 4.2 (Sensor Location) and 5.4 (Response Test) of the EPA's *Fabric Filter Bag Detection Guidance*, *September 1997*. Perform bag leak checks on a daily basis and corrective actions as needed.

c. The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

d. The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

e. The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

f. The bag leak detection system must be equipped with an audible or visual alarm system that will activate automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard or seen by plant operating personnel.

g. For positive pressure fabric filter systems that do not duct all compartments or cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

h. Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

[Condition 5.4, Minor Permit No. AQ0316MSS09, DATE]
[40 C.F.R. 63.11224(f), Subpart JJJJJJ]

34.5. For EU ID 113 that is controlled with a fabric filter, and continuous compliance is demonstrated using a bag leak detection system, the Permittee must:

a. Initiate corrective action within 1 hour of a bag leak detection system alarm and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period.

b. Keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and brief description of the cause of the alarm and the corrective action taken.

c. Record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if the inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

d. If corrective action is required, each alarm is counted as a minimum of 1 hour.

e. If the time to initiate corrective action is longer than 1 hour, the alarm time is counted as the actual amount of time taken to initiate corrective action.

[Condition 5.5, Minor Permit No. AQ0316MSS09, DATE]
[40 C.F.R. 63.11222(a)(4), Subpart JJJJJJ]

34.6. For a bag leak detection system, keep the records specified in Conditions 34.6.a through 34.6.c.

a. Records of the bag leak detection system output.

b. Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

c. The date and time of all bag leak detection system alarms, and for each valid alarm, the time corrective action was initiated, the corrective action taken, and the date on which corrective action was completed.

[Condition 5.6, Minor Permit No. AQ0316MSS09, DATE]
[40 C.F.R. 63.11225(c)(7), Subpart JJJJJJ]

35. Report in accordance with the excess emissions and permit deviation reports in Condition 141 should the Permittee exceed the emissions limit in Condition 33 or fail to meet any of the requirements under Condition 34.

[Condition 6, Minor Permit No. AQ0316MSS09, DATE]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

To Avoid SO_2 PSD Review and $PM_{2.5}$ NA NSR (EU ID 113)

36. The Permittee shall limit the SO_2 emissions from EU ID 113 to no greater than 258.9 tons per 12-month rolling period.

36.1. To show compliance with the SO_2 limit in Condition 36, the Permittee shall

a. limit SO_2 emissions in the exhaust gas of EU ID 113 to no more than 0.20 lb/MMBtu heat input; and

b. comply with the monitoring, recordkeeping, and reporting requirements in Conditions 64, 67, and 70 associated with the NSPS Subpart Db SO_2 standard applicable to EU ID 113.

36.2. If the SO_2 emissions in the exhaust gas of EU ID 113 exceeds the limit in Condition 36.1.a, report excess emissions and permit deviations in accordance with Condition 141.

[Condition 13, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

To Avoid CO PSD Review (EU ID 113)

37. The Permittee shall limit the CO emissions from EU ID 113 to no greater than 236.5 tons per 12-month rolling period as follows:

37.1. To show compliance with the CO limit in Condition 37, the Permittee shall

a. limit the concentration of CO in the exhaust gas of EU ID 113 per 3-run average to no greater than 220 parts per million volumetric dry basis (ppmvd) adjusted to 3 percent oxygen; and

b. comply with the monitoring, recordkeeping, and reporting requirements in Conditions 102.1, 103, and 104 associated with the NESHAP Subpart JJJJJJ CO standard applicable to EU ID 113.

37.2. If the concentration of CO in the exhaust gas of EU ID 113 exceeds the limit in Condition 37.1.a, report excess emissions and permit deviation in accordance with Condition 141.

[Condition 15, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

To Avoid Major HAPs Source Classification (EU ID 113)

38. The Permittee shall limit the HF and HCl emissions from EU ID 113 to no greater than 8.0 TPY and 4.0 TPY, respectively, per rolling 12-month period.

38.1. To show compliance with the HF and HCl limits in Condition 38, the Permittee shall comply with the following:

a. Install, operate and maintain, according to the manufacturer's recommendation, a dry sorbent injection system and a limestone injection system for EU ID 113.

(i) Except during startup and shutdown of EU ID 113, operate each of the dry sorbent injection system and the limestone injection system such that the feed rate of dry sorbent and limestone is proportional to the feed rate of fuel at a ratio equal to or greater than the ratio recorded for the most recent source test as required by Condition 38.1.b(iv).

(ii) Monitor and record the dry sorbent injection feed rate, the limestone injection feed rate, and the fuel feed rate electronically in the plant data historian.

(iii) Report as required by the Excess Emissions and Permit Deviations in Condition 141 if the dry sorbent injection system and/or the limestone injection system are not operated according to Condition 38.1.a(i).

b. The Permittee shall conduct an annual source test on EU ID 113 using the applicable test method set out in 40 C.F.R. 60, Appendix A, no less than 10 months and no more than 14 months after the previous source test. The Permittee shall source test downstream of all emission control devices. The Permittee may propose alternative test methods if it can be shown to be of equivalent accuracy, and will ensure compliance with the applicable standards or limits.

(i) Conduct the initial source test within 365 days of beginning operation of EU ID 113.

(ii) Submit to the Department a complete plan for conducting an initial source test to determine the HF and HCl emission rates in lb/MMBtu for EU ID 113 no later than 60 days prior to the initial source test.

(iii) Use only coal as fuel for each source test conducted.

(iv) Monitor and record the feed rates of the fuel, the dry sorbent injection system and the limestone injection system for each source test run.

(v) In the source test report under Condition 135, compare the maximum HF and HCl emission rates (lb/MMBtu) as follows:

(A) Compare the HF emission rate to 0.0062 lb/MMBtu. If the HF emission rate exceeds 0.0062 lb/MMBtu, report as required by the Excess Emission and Permit Deviation Reports in Condition 141.

(B) Compare the HCl emission rate to 0.0031 lb/MMBtu. If the HCl emission rate exceeds 0.0031 lb/MMBtu, report as required by the Excess Emission and Permit Deviations in Condition 141.

(vi) If two consecutive annual source tests show compliance with either of the limits in Condition 38 the Permittee may reduce the source test frequency for that pollutant to no less than 34 months and no later than 40 months after the previous source test.

[Condition 17, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]

Monitoring to Determine Applicability of Biomass Boiler Classification under 40 C.F.R. 63 Subpart JJJJJJ (EU ID 113)

39. EU ID 113 is subject to the applicable requirements of 40 C.F.R. 63 Subpart JJJJJJ for a biomass subcategory if the unit burns more than 15 percent biomass on an annual heat input.[10] The Permittee shall monitor the rolling 12-month total heat input of biomass to EU ID 113 as follows:

[Condition 18, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)]
[40 C.F.R. 63.11237, Subpart JJJJJJ]

39.1. **Coal Heat Content**. Obtain a statement or receipt from the coal supplier certifying the heat content of the coal for each shipment of coal delivered to the stationary source. If a certified statement or receipt is not available from the supplier, analyze a representative sample of the shipment of coal in accordance with ASTM method D5865-12, or an alternative method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

39.2. **Woody Biomass Heat Content**. Obtain a statement or receipt from the biomass supplier certifying the heat content of the biomass for each shipment delivered to the stationary source. If a certified statement or receipt is not available from the supplier, analyze a representative sample of the biomass shipment in accordance with ASTM Method E870, or an alternative method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

39.3. For each shipment of coal or biomass delivered, the Permittee shall record the following:

a. the shipment number,

b. the heat content of each of the coal and biomass,

[10] As defined in 40 C.F.R. 63.11237, a*nnual heat input* means the heat input for the 12 months preceding the compliance demonstration.

c. the date of each of the coal or biomass was delivered, and

d. the weight of each of the coal or biomass delivered.

39.4. By the 15th of each month, the Permittee shall calculate the previous calendar month's heat input of coal and biomass burned in EU ID 113 using Equation 5 below:

Equation 5 $$H_i = (hc_1 \times fuel_1) + (hc_2 \times fuel_2) + \cdots + (hc_n \times fuel_n)$$

Where:

H_i = *heat input for month (c) of coal or biomass, as applicable;*

hc_n = *heat content of coal or biomass as applicable from coal shipment or biomass shipment number n delivered in month (c) in terms of MMBtu/ton; and*

$fuel_n$ = *amount of coal or biomass as applicable from coal shipment or biomass shipment number n delivered in month (c) in terms of tons.*

39.5. As calculated in Condition 39.4, keep records of the following:

a. the monthly heat input for coal;

b. the monthly heat input for biomass;

c. the total monthly heat input of coal and biomass;

d. the rolling 12-month heat input for biomass; and

e. the rolling 12-month total heat input of coal and biomass.

39.6. By the 15th of each month, the Permittee shall calculate the rolling 12-month percentages of biomass heat input, based on the heat input information recorded in Condition 39.5, as follows:

a. Divide the previous month's rolling 12-month total heat input for biomass divided by the previous month's rolling 12-month total heat input of coal and biomass, then multiply by 100.

39.7. If any of the rolling 12-month percentages of biomass heat input to EU ID 113 is more than 15 percent, as calculated under Condition 39.6.a, notify the Department in writing, within 30 days of exceedance, that EU ID 113 is subject to 40 C.F.R. 63.11210(i) (Condition 98.4).

39.8. Report in the operating report required in Condition 142 the rolling 12-month percentages of biomass heat input into EU ID 113, as calculated under Condition 39.6.a, for each month of the reporting period.

[Condition 18, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

ORLs Established in Minor Permit No. AQ0316MSS07

To Avoid Minor Permitting under 18 AAC 50.502(c)(3)(A)(ii)

40. SO_2 Limit. The Permittee shall limit the combined SO_2 emissions from EU IDs 17, 18, and 22 listed in Table A to no more than 0.12 tons per year (TPY)[11] based on a rolling 12-consecutive-month period to avoid minor permitting under 18 AAC 50.502(c)(3)(A)(ii).

40.1. To ensure compliance with the limit in Condition 40, the Permittee shall burn in EU IDs 17, 18, and 22 only ultra-low sulfur diesel (ULSD) with fuel sulfur content not exceeding 0.0015 percent sulfur by weight ($wt\%S_{Fuel}$).

40.2. Monitor, record and report in accordance with Condition 30.1.

[Condition 5, Minor Permit No. AQ0316MSS07, DATE]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

To Avoid Minor Permitting under 18 AAC 50.502(c)(3)(A)(iii)

41. NO_x Limit. The Permittee shall limit the combined NO_x emissions from EU IDs 19, 20, 21, and 22 listed in Table A to no more than 9.9 TPY[12] based on a rolling 12-consecutive-month period to avoid minor permitting under 18 AAC 50.502(c)(3)(A)(iii).

41.1. To ensure compliance with the limit in Condition 41, the Permittee shall limit combined operational hours of EU IDs 19, 20, 21, and 22 to no more than 18,739 hours based on a rolling 12-consecutive-month period.

41.2. Equip each EU with a dedicated, non-resettable hour meter. Monitor, record and report as follows:

a. Monitor and record the hours of operation of each of EU IDs 19, 20, 21, and 22.

b. By the 15th of each calendar month,

(i) record the combined hours of operation of EU IDs 19, 20, 21, and 22 for the previous calendar month that the units operated; and

(ii) calculate and record the 12-consecutive-month period combined hours of operation of EU IDs 19, 20, 21, and 22 ending with the previous month, using the monthly combined hours of operation as calculated in Condition 41.2.b(i).

c. Report the monthly and the 12-consecutive-month period combined hours of operation of EU IDs 19, 20, 21, and 22 recorded in Condition 41.2.b(ii) in the operating report required in Condition 142.

[11] The combined SO_2 emissions of EU IDs 17, 18, and 22 based on burning only ULSD fuel with heating value of 137,000 Btu/gal and density of 7 lbs/gallon, and each EU operating 8,760 hours per year, is equivalent to 0.123 TPY.
[12] The combined operational hours of 18,739 hours of any or all of EU IDs 19, 20, 21, and 22 is equivalent to no more than 9.9 TPY, based on worst-case scenario.

d. Report in accordance with the excess emissions and permit deviation reports required in Condition 141 if the combined 12-consecutive-month period hours of operation for EU IDs 19, 20, 21, and 22 exceeds the limit in Condition 41.

[Condition 7, Minor Permit No. AQ0316MSS07, DATE]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

ORLs Established in Minor Permit No. AQ0316MSS08

SO_2 SIP BACT Limits, EU IDs 3, 4, 8, 9A, 24, 19 – 21, 26, 27, 29, and 113

42. Fuel Sulfur Content Limits, October 1, 2020. Beginning no later than October 1, 2020, during each October 1 through March 31 period, the Permittee shall comply with the following:

42.1. For EU IDs 3 and 4 (when firing diesel fuel) and EU IDs 19 through 21, limit the sulfur content of liquid fuel combusted in the EUs to no greater than 1,000 ppmw (0.1 wt%S_{fuel}).

a. For EU IDs 3 and 4, monitor, record, and report in accordance with Condition 45.

b. For EU IDs 19 through 21, demonstrate compliance with Condition 42.1 by complying with the more stringent ULSD fuel sulfur content limit (15 ppmw or 0.0015 wt%S_{fuel}) and associated monitoring, recordkeeping, and reporting requirements required in Condition 30.1.

42.2. Limit the emissions from EU IDs 3 and 4 (when firing natural gas (NG)) to no greater than 0.60 lb/MMscf SO_2 (equivalent of combusting NG with an H_2S content of 3.5 ppmv). Monitor, record, and report in accordance with Condition 46.

[Conditions 5, 8, 9, and 10, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) and 71.6(c)(6)]

43. Fuel Sulfur Content Limits, June 9, 2021. Beginning no later than June 9, 2021, the Permittee shall comply with the following:

43.1. For EU ID 113, limit the sulfur content of coal received at the stationary source to no greater than 0.25 percent sulfur by weight (wt%S_{fuel}) as received, based on a calendar quarter[13] block averaging period. Monitor, record, and report in accordance with Condition 47.

43.2. For EU IDs 8, 9A, 24, 26, 27, and 29, limit the sulfur content of liquid fuel combusted in the EUs to no greater than 15 ppmw (ULSD). Monitor, record, and report in accordance with Condition 30.1.

[Conditions 6, 9, and 11, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) and 71.6(c)(6)]

[13] A calendar quarter is each three-month period within a year starting from January 1st.

44. Fuel Sulfur Content Limits, October 1, 2023. Beginning no later than October 1, 2023, during each October 1 through March 31 period, the Permittee shall comply with the following:

44.1. For EU IDs 3 and 4 (when firing diesel fuel) and EU IDs 19 through 21, limit the sulfur content of liquid fuel combusted in the EUs to no greater than 15 ppmw (ULSD). Monitor, record, and report in accordance with Condition 30.1.

[Conditions 7 and 9, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) and 71.6(c)(6)]

Monitoring, Recordkeeping, and Reporting (MR&R) Requirements, Fuel Sulfur Contents

45. Liquid Fuel Sulfur Content MR&R. The Permittee shall monitor, record, and report the sulfur contents of the fuel oil burned at the stationary source as follows:

45.1. Comply with either Condition 45.1.a or Condition 45.1.b:

a. For each shipment of fuel:

(i) If the fuel grade requires a fuel sulfur content equal to or less than the limits specified in Condition 42.1, keep receipts that specify fuel grade and amount; or

(ii) If the fuel grade does not require a fuel sulfur content equal to or less than the limits specified in Condition 42.1, keep receipts that specify fuel grade and amount and

(A) test the fuel for sulfur content; or

(B) 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; or

b. Test the sulfur content of the fuel in each storage tank that supplies fuel to the affected EUs at least monthly.

45.2. Fuel testing under Condition 45.1.a or Condition 45.1.b must follow an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

45.3. Keep records of the statement from the fuel supplier and the sulfur content analysis required under Conditions 45.1.a and 45.1.b.

45.4. Include the following information covering the reporting period in each operating report required by Condition 142:

a. a list of the fuel grades and amounts received at the stationary source as provided in Condition 45.1.a(i); and

b. a summary of the results of fuel sulfur tests conducted under Condition 45.1.a(ii) or Condition 45.1.b.

45.5. Report in accordance with the excess emissions and permit deviation reports required in Condition 141 whenever any of the limits specified in Conditions 42.1, 43.2, and 44.1 is exceeded, or whenever any of the requirements in Conditions 45.1 through 45.4 are not met.

[Condition 8, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3) and 71.6(c)(6)]

46. NG Fuel Sulfur Content MR&R. The Permittee shall monitor, record, and report the sulfur contents of the NG fuel burned at the stationary source as follows:

46.1. Obtain a semiannual statement from the supplier of the natural gas providing the H_2S concentration in ppmv.

46.2. If a certificate is not available from the natural gas supplier, analyze semiannually a representative sample of the natural gas to determine the H_2S content using either ASTM D4084, D5504, D4810, D4913, D6228 or GPA Standard 2377-86, or a listed method approved in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

46.3. Keep records of the statement from the natural gas supplier or the H_2S content analysis required under Conditions 46.1 or 46.2.

46.4. Include the following information covering the reporting period in each operating report required by Condition 142:

a. a copy of the semiannual statement from the supplier of the natural gas received at the stationary source as required in Condition 46.1; and

b. a summary of the results of natural gas H_2S content tests conducted under Condition 46.2.

46.5. Report in accordance with Condition 141, whenever the limit in Condition 42.2 is exceeded, or whenever any of the requirements in Conditions 46.1 through 46.4 is not met.

[Condition 10, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3) and 71.6(c)(6)]

47. Coal Sulfur Content MR&R. The Permittee shall monitor, record, and report the sulfur contents of the coal burned at the stationary source as follows:

47.1. Upon receipt of each shipment of coal at the stationary source, obtain a certified statement from the supplier with the following information:

a. the percent sulfur by weight of the coal as received;

b. the method of the analysis;

c. a statement that the analysis was representative of the coal shipped; and

d. the total weight of the coal in the shipment.

47.2. If a certificate is not available from the supplier, analyze a representative sample of the fuel to determine the sulfur content using an appropriate method listed in 18 AAC 50.035(b)-(c) or 40 C.F.R. 60.17 incorporated by reference in 18 AAC 50.040(a)(1).

47.3. Keep records of the sulfur contents of each shipment of coal determined under Conditions 47.1 and 47.2.

47.4. If the wt%S_{fuel} content of any shipment received during a calendar quarter is greater than 0.25 percent, calculate the average wt%S_{fuel} content of the coal received for each calendar quarter using Equation 6, based on the information received under Condition 47.1 and the test results under Condition 47.2.

$$\textbf{Equation 6 } S_{ave} = \frac{(W_1 \, x \, S_1)+(W_2 \, x \, S_2)+\cdots+(Wn \, x \, S_n)}{(W_1+W_2+\cdots+W_n)}$$

Where:

$W_1, W_2, \ldots W_n$ = Weight of coal for each shipment received during the calendar quarter, tons

$S_1, S_2, \ldots S_n$ = Sulfur content of each shipment of coal during the calendar quarter, wt%S_{fuel}

$W_1 + W_2 + \ldots + Wn$ = Total weight of all coal received during the calendar quarter, tons

S_{ave} = Average sulfur content of coal for the calendar quarter, wt%S_{fuel}

47.5. Coal present on site before June 9, 2021 may be combusted in EU 113 at any time, at the discretion of the Permittee.

47.6. Include a summary of the wt%S_{fuel} content for each shipment of coal received, and the calculated calendar quarter average wt%S_{fuel} content of coal if required per Condition 47.4, for each calendar quarter covered by the reporting period in each operating report required by Condition 142.

47.7. Report in accordance with Condition 141, whenever the limit in Condition 43.1 is exceeded, or whenever any of the requirements in Conditions 47.1 through 47.6 is not met.

[Condition 11, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(3) and 71.6(c)(6)]

$PM_{2.5}$ SIP BACT Limits and MR&R Requirements, EU ID 9A, 105, 107, 109, 110, 111, 114, and 128 – 130

48. EU ID 9A $PM_{2.5}$ Limit, June 9, 2021. Beginning no later than June 9, 2021, the Permittee shall limit the $PM_{2.5}$ emissions from the incinerator, EU ID 9A, to no greater than 4.67 pounds per ton of waste and the amount of waste combusted in EU ID 9A to no more than 109 tons per 12-month rolling period. The Permittee shall comply with the following:

48.1. Control $PM_{2.5}$ emissions from EU ID 9A by using a multiple chamber designed incinerator.

48.2. Maintain good combustion practices by following the manufacturer's operational procedures at all times of operation.

48.3. Monitor, record, and report, as follows:

a. Comply with Conditions 29.1.a through 29.1.c.

b. Include in the next operating report required under Condition 142 a statement indicating whether EU ID 9A is using a multiple chamber.

c. Report in accordance with Condition 141, whenever the limits in Condition 48 are exceeded, or whenever any of the requirements in Conditions 48.1 through 48.3.b is not met.

[Condition 12, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

49. EU IDs 105, 107, 109, 110, 114, and 128 through 130 $PM_{2.5}$ Limits, June 9, 2021. Beginning no later than June 9, 2021, the Permittee shall comply with the following:

49.1. Limit the $PM_{2.5}$ emissions from EU IDs 105, 107, 109, 110, and 128 through 130 to no greater than 0.003 grains per dry standard cubic feet (gr/dscf) each; and

49.2. Limit the $PM_{2.5}$ emissions from EU ID 114 to no greater than 0.050 gr/dscf.

49.3. For EU IDs 105, 107, 109, 110, 114, and 128 through 130, the Permittee shall

a. install, operate, and maintain fabric filters and vents at all times while the EUs are operating;

b. operate the EUs in an enclosure;

c. keep records of the date and time identifying each time period that each of the EUs are operated outside of an enclosure, or operated without a fabric filter or vent; and

d. for each of the EUs, the Permittee shall, no later than November 5, 2021, either:

(i) provide vendor data documenting that EU IDs 105, 107, 109, 110, 114, and 128 through 130 meet the emission limits of Condition 49.1 or 49.2; or

(ii) perform an initial Method 9 observation. For all Method 9 observations, observe emissions unit exhaust for 18 consecutive minutes to obtain a minimum of 72 consecutive 15-second opacity observations in accordance with Method 9 of 40 C.F.R. 60, Appendix A-4.

e. If the 18 consecutive minutes of the initial Method 9 observations conducted under Condition 49.3.d(ii) result in an 18-minute average opacity greater than 20 percent, the Permittee shall conduct a $PM_{2.5}$ source test in accordance with the methods and procedures specified in 40 C.F.R. 60 Appendix A to determine the $PM_{2.5}$ emission rate.

f. The Permittee shall report the results of the source test(s) in accordance with the General Source Testing and Monitoring Requirements conditions in Section 9.

49.4. Include in the next operating report required under Condition 142 copies of the results of Method 9 observations conducted under Condition 49.3.d(ii).

49.5. Report in accordance with Condition 141:

a. whenever a source test exceeds the limits in Conditions 49.1 or 49.2; or

b. each time that any of the EUs are operated outside of an enclosure, or operated without a fabric filter or vent; or

c. whenever any of the requirements in Condition 49.3 is not met.

[Condition 13, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

50. EU ID 111, $PM_{2.5}$ Limit, June 9, 2021. Beginning no later than June 9, 2021, the Permittee shall limit $PM_{2.5}$ emissions from EU ID 111 to no greater than 5.50E-05 pound per ton of ash. The Permittee shall comply with the following:

50.1. Operate EU ID 111 in an enclosure during all ash loadout operations.

50.2. Keep records of the date and time identifying each time period that EU ID 111 was not enclosed during ash loadout operations.

50.3. Report in accordance with Condition 141:

a. whenever the limit in Condition 50 is exceeded; or

b. whenever any of the requirements in Conditions 50.1 through 50.2 is not met.

[Condition 14, Minor Permit No. AQ0316MSS08, May 5, 2021]
[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3) and 71.6(c)(6)]

Section 7. Federal Requirements

40 C.F.R. Part 60 New Source Performance Standards (NSPS)

Subpart A – General Provisions

51. NSPS Subpart A Notification. Unless exempted by a specific subpart, for any affected facility[14] or existing facility[15] regulated under NSPS requirements in 40 C.F.R. 60, the Permittee shall furnish the Administrator[16] written or, if acceptable to both the EPA and the Permittee, electronic notification, as follows:

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

51.1. a notification of the date construction (or reconstruction as defined under 40 C.F.R. 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form;

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

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

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

51.3. a notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies unless that change is specifically exempted under an applicable subpart or in 40 C.F.R. 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include: [17]

a. information describing the precise nature of the change,

b. present and proposed emission control systems,

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

d. the expected completion date of the change;

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

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

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

[14] *Affected facility* means, with reference to a stationary source, any apparatus to which a standard applies, as defined in 40 C.F.R. 60.2.

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

[16] The Department defines the "the Administrator" to mean "the EPA and the Department."

[17] The Department and EPA may request additional relevant information subsequent to this notice.

51.5. a notification of the anticipated date for conducting the opacity observations required by 40 C.F.R. 60.11(e)(1). The notifications shall also include, if appropriate, a request for the EPA to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date;

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

51.6. a notification 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 C.F.R. 60.8 in lieu of Method 9 observation data as allowed by 40 C.F.R. 60.11(e)(5). This notification shall be postmarked not less than 30 days prior to the date of the performance test; and

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

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

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

a. the name and address of owner or operator,

b. the location of the existing facility,

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

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

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

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

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

52. 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 4, 113, and 115 through 136, any malfunctions of associated air-pollution control equipment, or any periods during which a continuous monitoring system or monitoring device for each of EU IDs 4, 113, and 115 through 136 is inoperative.

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

53. NSPS Subpart A Excess Emissions and Monitoring Systems Performance Report. The Permittee shall submit to the Department and to EPA a written excess emissions and

monitoring systems performance (EEMSP)[18] report and/or summary report form (see Condition 54). (Excess emissions are defined in applicable subparts and limits are in Conditions 61, 62, 63, and 72.) The Permittee shall submit the reports to the EPA and Department semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the EPA, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

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

53.1. The magnitude of excess emissions computed in accordance with Condition 60.6, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period.

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

53.2. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of each of EU IDs 4, 113, and 115 through 136; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

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

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

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

53.4. When no excess emissions have occurred or the CMS have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

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

54. NSPS Subpart A Summary Report Form. The Permittee shall submit to the Department and to EPA one "summary report form" in the format shown in Figure 1 of 40 C.F.R. 60.7 (see Attachment A to the Statement of Basis (SOB)) for each pollutant monitored for each of EU IDs 4, 113, and 115 through 136. 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, case-by-case basis, or the EPA, as follows:

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

[18] The federal EEMSP report is not the same as the state excess emission report required by Condition 141.

54.1. 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 53 is requested, or

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

54.2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five percent or greater of the total time for the reporting period, then submit a summary report form **and the EEMSP** described in Condition 53.

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

55. NSPS Subpart A Recordkeeping. For EU IDs 4, 113, and 115 through 136., the Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 C.F.R. Part 60 recorded in a permanent form suitable for inspection. Except as provided in 40 C.F.R. 60.7(f)(1) and (2), the file shall be retained for at least five years, in accordance with Condition 137, following the date of such measurements, maintenance, reports, and records.

[18 AAC 50.040(a)(1) & (j)(4)]
[40 C.F.R. 60.7(f), Subpart A]
[40 C.F.R 71.6(a)(3)(ii)(B)]

56. NSPS Subpart A Performance (Source) Tests. The Permittee shall conduct source tests according to Section 9 and as required in this condition on any affected facility.

[18 AAC 50.040(a)(1)]

56.1. Except as specified in 40 C.F.R. 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 C.F.R. Part 60, and at such other times as may be required by the Administrator, the Permittee shall conduct performance test(s) and furnish EPA and the Department a written report of the results of such performance test(s).

[40 C.F.R. 60.8(a), Subpart A]

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

[40 C.F.R. 60.8(b), Subpart A]

56.3. Conduct source tests under conditions specified by EPA to be based on representative performance of EU IDs 4, 113, and 115 through 136. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 C.F.R. 60.8(c), Subpart A]

56.4. Notify the Department and EPA at least 30 days in advance of the source test. If after 30 days' notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the Permittee shall notify the EPA and the Department as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the EPA and the Department by mutual agreement.

[40 C.F.R. 60.8(d), Subpart A]

56.5. Provide adequate sampling ports, safe sampling platform(s), safe access to sampling platform(s), and utilities for sampling and testing equipment.

[40 C.F.R. 60.8(e), Subpart A]

56.6. Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method.

a. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply.

b. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the EPA's approval, be determined using the arithmetic mean of the results of the two other runs.

c. Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, the report for a performance test shall include the elements identified in 40 C.F.R. 60.8(f)(2)(i) through (vi).

[40 C.F.R. 60.8(f), Subpart A]

56.7. The performance testing shall include a test method performance audit (PA) during the performance test, as described in 40 C.F.R. 60.8(g).

[40 C.F.R. 60.8(g), Subpart A]

56.8. Unless otherwise specified in the applicable subpart, each test location must be verified to be free of cyclonic flow and evaluated for the existence of emission gas stratification and the required number of sampling traverse points. If other procedures are not specified in the applicable subpart to the regulations, use the appropriate procedures in Method 1 to check for cyclonic flow and Method 7E to evaluate emission gas stratification and selection of sampling points.

[40 C.F.R. 60.8(h), Subpart A]

56.9. Whenever the use of multiple calibration gases is required by a test method, performance specification, or quality assurance procedure in a 40 C.F.R. 60 standard or appendix, Method 205 of 40 C.F.R. 51, Appendix M, *"Verification of Gas Dilution Systems for Field Instrument Calibrations,"* may be used.

[40 C.F.R. 60.8(i), Subpart A]

57. 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 4, 113, and 115 through 136 including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The Administrator will determine whether acceptable operating and maintenance procedures are being used based on information available, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance records, and inspections of EU IDs 4, 27, 29, 113, and 115 through 136.

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

58. 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 61, 62, 63, and 72. Nothing in 40 C.F.R. Part 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether EU IDs 4, 113, and 115 through 136 would have been in compliance with applicable requirements of 40 C.F.R. Part 60 if the appropriate performance or compliance test or procedure had been performed.

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

59. 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 61, 62, 63, 72, or 80. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard that is based on the concentration of a pollutant in the gases discharged to the atmosphere.

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

60. NSPS Subpart A, Monitoring. For a CMS required under Conditions 65.2, 67.1, 68.1, 69.1, and 73.6.c the Permittee shall comply as follows:

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

60.1. Ensure that all CMS and monitoring devices are installed (in accordance with 40 C.F.R. 60.13(f) and (g)) and operational prior to a performance test conducted under Condition 56. Verification of operational status shall, as a minimum, include completion of manufacturer's written requirements or recommendations for installation, operation, and calibration of device.

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

60.2. Conduct continuous opacity monitoring system (COMS) or continuous emission monitoring system (CEMS) performance evaluations in accordance with 40 C.F.R. 60.13(c) and at such other times as may be required by the Administrator under section 114 of the Act.

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

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

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

60.4. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition 60.2, keep all CMS's in operation continuously and as follows:

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

a. for a Continuous Opacity Monitor (COMs), complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive six-minute period; otherwise

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

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

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

60.5. The Permittee shall install CMS on affected emissions units, as follows:

a. When the effluents from a single emissions unit or two or more emissions units subject to the same emission standards are combined before being released to the atmosphere, the Permittee may install applicable CMS on each effluent or on the combined effluent.

b. When the affected emissions units are not subject to the same emission standards, install separate CMS on each effluent.

c. When the effluent from one emissions unit is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator.

d. When more than one CMS is used to measure the emissions from one affected emissions unit (e.g., multiple breechings, multiple outlets), the Permittee shall report the results as required from each CMS.

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

60.6. Reduce data in accordance with the following:

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

a. For all CMS for measurement of opacity, reduce all data to six-minute opacity averages from 36 or more data points equally spaced over each six-minute period.

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

b. For CMS other than opacity, reduce all data to one-hour averages for time periods as defined in 40 C.F.R. 60.2. Compute one-hour averages in accordance with 40 C.F.R. 60.13(h)(2)(i) through (ix).

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

c. Convert all excess emission into units of the standard used in Conditions 67.1, 65.2, 68.1, 69.1, and 73.6.c. After conversion the Permittee may round data to the same number of significant digits as used in the condition.

[40 C.F.R. 60.13(h)(3), Subpart A]

60.7. The Permittee may request for an alternative monitoring procedures or requirements of 40 C.F.R. 60 through a written application, subject to the Administrator's approval, in accordance with 40 C.F.R. 60.13(i)(1) through (9).

[40 C.F.R. 60.13(i)(1)-(9), Subpart A]

60.8. The Permittee may request for an alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B in accordance with 40 C.F.R. 60.13(j)(1) through (2).

[40 C.F.R. 60.13(j)(1)-(2), Subpart A]

NSPS Subpart Db – Institutional Steam Generating Units, EU IDs 4 and 113

NSPS Subpart Db Emissions Standards

61. NSPS Subpart Db SO_2 Emissions Standards: For EU ID 4 (when combusting distillate oil) and EU ID 113 (when combusting coal, or a mixture of coal with woody biomass[19]) listed in Table A, the Permittee shall, at all times, **including** periods of startup, shutdown, and malfunction, comply with the following SO_2 emissions standards:

[18 AAC 50.040(a)(2)(C) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.42b(g) and 60.45b(a), Subpart Db]

[19] *Woody biomass*, as used in this permit, means wood products including raw, clean, untreated wood and could include small amounts of leaves, dirt, bark, and processed pellets made with these materials. Excluded from the definition is construction debris and processed wood pulp.

61.1. For EU IDs 4, the Permittee shall combust only very low sulfur oil[20] (i.e., oil that contains no more than 0.5 weight percent sulfur) by complying with the fuel sulfur content limits required in Condition 42.1 and 44.1.

[40 C.F.R. 60.41b and 60.42b(j), Subpart Db]

a. Demonstrate that the oil combusted in EU ID 4 meets the definition of very low sulfur oil by maintaining fuel records, as follows:

(i) Obtain and maintain at the stationary source fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in 40 C.F.R. 60.41b and the applicable sulfur limit.[21]

[40 C.F.R. 60.42b(j)(2), 60.45b(k), and 60.49b(r)(1), Subpart Db]

b. Performance testing and monitoring requirements under Conditions 64 and 67 do not apply.

[40 C.F.R. 60.45b((j) and 60.47b(f), Subpart Db]

c. Include with the EPA semi-annual report required in Condition 54 a report certifying that only very low sulfur oil meeting the definition of distillate oil and natural gas in 40 C.F.R. 60.41b were combusted in EU ID 4 during the reporting period.

[40 C.F.R. 60.49b(r)(1), Subpart Db]

d. Submit a report to the Department in accordance with Condition 141 if the oil and natural gas burned in EU ID 4 does not meet the fuel requirements specified under Condition 61.1.

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

61.2. For EU ID 113, on and after the date on which the initial performance test is completed or is required to be completed under Condition 56, whichever date comes first, the Permittee shall not cause to be discharged into the atmosphere any gases that contain SO_2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input.

[40 C.F.R. 60.42b(k)(1), Subpart Db]

a. Determine compliance with the emissions limit in Condition 61.2 based on a 30-day rolling average.

[40 C.F.R. 60.42b(e), Subpart Db]

b. Comply with the corresponding SO_2 performance testing and MR&R requirements under Conditions 64, 67, 70, and 71.

[20] In accordance with 40 C.F.R. 60.42b((j), percent reduction requirements under §60.42b(a) do not apply to EU ID 4 when combusting only very low sulfur oil. As set out in Condition 42.1 and 44.1, the Permittee is required to limit the sulfur content of diesel fuel combusted in EU ID 4 to no greater than 1,000 ppmw (0.1 wt%S_{fuel}) effective October 1, 2020 and 15 ppmw (ULSD, 0.0015 wt%S_{fuel}) effective October 1, 2023.

[21] For the purposes of Condition 61.1.a(i), the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil in 40 C.F.R. 60.41b. [Ref. 40 C.F.R. 60.49b(r)(1)]

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

62. NSPS Subpart Db Particulate Matter (PM) and Opacity Standards. For EU ID 4 (when combusting distillate oil or a mixture of distillate oil and natural gas) and EU ID 113 (when combusting coal, woody biomass, or combination of both) listed in Table A, the Permittee shall, at all times, **except** during periods of startup, shutdown, or malfunction, comply with the following PM and opacity standards in Conditions 62.1 and 62.2:

[18 AAC 50.040(a)(2)(C) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.43b(g) and 60.46b(a), Subpart Db]

62.1. Except as provided in Condition 62.1.a, for EU IDs 4 and 113, on and after the date on which the initial performance test is completed or is required to be completed under Condition 56, whichever date comes first, do not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

a. EU ID 113 is exempt[22] from the opacity standard specified in Condition 62.1 and the COMS requirement in Condition 68.1, if the Permittee elects to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) on EU ID 113 for measuring PM emissions.

[40 C.F.R. 60.43b(f) and 60.48b(j)(1), Subpart Db]

62.2. For EU ID 113 (when combusting coal, woody biomass, or combination of both), on and after the date on which the initial performance test is completed or is required to be completed under Condition 56, whichever date comes first, do not cause to be discharged into the atmosphere any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input.

[40 C.F.R. 60.43b(h)(1), Subpart Db]

62.3. Comply with the corresponding PM performance testing and MR&R requirements under Conditions 65, 68, 70, and 71.

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

63. NSPS Subpart Db Nitrogen Oxides (NO_x) Standards. For EU ID 4 (when combusting distillate oil or natural gas, or combination of both) and EU ID 113 (when combusting coal or woody biomass, or combination of both) listed in Table A, the Permittee shall, at all times, **including** periods of startup, shutdown, or malfunction, comply with the NO_x (expressed as NO_2) standards in Condition 63.1.

[18 AAC 50.040(a)(2)(C) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.44b(a), 60.44b(h), (i), & (l), and 60.46b(a), Subpart Db]

[22] The exemption provided in Condition 62.1.a applies to EU ID 113 because it is subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less (see Conditions 62.2, 96.1.a and 96.2.a). [Ref. 40 C.F.R. 60.43b(f), Subpart Db]

63.1. On and after the date on which the initial performance test is completed or is required to be completed under Condition 56, whichever date is first, do not cause to be discharged into the atmosphere any gases from EU IDs 4 and 113 that contain NO_x (expressed as NO_2) in excess of 86 ng/J (0.20 lb/MMBtu) heat input.

[40 C.F.R. 60.44b(a) & (l)(1), Subpart Db]

a. Determine compliance with the emissions limit in Condition 63.1 based on a 30-day rolling average basis.

[40 C.F.R. 60.44b(i), Subpart Db]

63.2. Comply with the corresponding NO_x performance testing and MR&R requirements under Conditions 66, 69, 70, and 71.

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

NSPS Subpart Db Performance Test Requirements and Compliance Demonstration

64. For SO_2, EU ID 113. The Permittee shall conduct performance tests on EU ID 113 to demonstrate compliance with the SO_2 emissions standard in Condition 61.2 as follows:

[18 AAC 50.040(a)(2)(C) & (j) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.45b, Subpart Db]

64.1. In conducting the performance tests required under Condition 56, the Permittee shall use the methods and procedures in 40 C.F.R. 60 Appendix A (including fuel certification and sampling) or by following the procedures described below, except as provided in 40 C.F.R. 60.8(b) (Condition 56.2). 40 C.F.R. 60.8(f) (Condition 56.6) does not apply to this condition.

a. Conduct the initial performance test over 30 consecutive operating days of EU ID 113 to determine compliance with the SO_2 standard in Condition 61.2, using a 30-day average and in accordance with Condition 64.2.

b. If only coal is combusted, the following procedures are used:

(i) Determine the hourly SO_2 emission rate (E_{ho}) and the 30-day average emission rate (E_{ao}) using the procedures in Method 19 of 40 C.F.R. 60 Appendix A-7.

(ii) The hourly averages used to compute the 30-day averages are obtained from the CEMS of Conditions 67.1 or 67.2.

c. If coal is combusted with other fuels (e.g., woody biomass), use the same procedures in Condition 64.1.b, except as provided in the following:

(i) Use an adjusted hourly SO_2 emission rate (E_{ho}^o) in Equation 19-19 of Method 19 of 40 C.F.R. 60 Appendix A to compute an adjusted 30-day average emission rate (E_{ao}^o). The E_{ho}^o is computed using the following formula:

Equation 7 $$E_{ho}^{o} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E_{ho}^{o} = *Adjusted hourly SO_2 emission rate, ng/J (lb/MMBtu);*

E_{ho} = *Hourly SO_2 emission rate, ng/J (lb/MMBtu);*

E_w = *SO_2 concentration in woody biomass combusted in EU ID 113, as determined by the fuel sampling and analysis procedures in 40 C.F.R. 60 Method 19 of Appendix A, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted; and*

X_k = *Fraction of total heat input from fuel combustion derived from coal, as determined by applicable procedures in Method 19 of 40 C.F.R. 60 Appendix A.*

d. The Permittee does not have to measure parameters E_w or X_k if the Permittee elects to assume the X_k =1.0.

(i) If X_k = 1.0 is assumed, the Permittee shall:

(A) Determine the potential SO_2 percent emission rate, $\%P_s$, using the following formula; and

Equation 8 $$\%P_s = 100\left(1 - \frac{\%R_g}{100}\right)\left(1 - \frac{\%R_f}{100}\right)$$

Where:

%Ps = *Potential SO_2 emission rate, percent;*

$\%R_g$ = *SO_2 removal efficiency of the control device as determined by Method 19 of 40 C.F.R. 60 Appendix A, in percent; and*

$\%R_f$ = *SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of 40 C.F.R. 60 Appendix A, in percent.*

(B) SO_2 emissions (E_s) are considered to be in compliance with SO_2 emission limits under Condition 61.2.

[40 C.F.R. 60.45b(b), (c)(1) – (c)(4), & (f) Subpart Db]

64.2. For the initial performance test required under Condition 56, comply with the following:

a. Determine compliance with the SO_2 emission limit under Condition 61.2 based on the average emission rates for SO_2 for the first 30 consecutive steam generating unit operating days.

b. Submit a 30-day notice, as required in 40 C.F.R. 60.8(d), prior to the scheduled initial performance test, unless otherwise specified by the EPA Administrator.

c. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 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 the boiler.

d. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

[40 C.F.R. 60.45b(f), Subpart Db]

64.3. After the initial performance test required under Condition 56, compliance with the SO_2 emission limits under Condition 61.2 is based on the average emission rates for SO_2 for 30 successive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate for SO_2 is calculated to show compliance with the standard.

[40 C.F.R. 60.45b(g), Subpart Db]

64.4. The Permittee shall use all valid SO_2 emissions data in calculating hourly SO_2 emission rate (E_{ho}) under Condition 64.1, whether or not the minimum emissions data requirements under Condition 65 or Condition 66 are achieved. All valid emissions data, including valid SO_2 emission data collected during periods of startup, shutdown, and malfunction, shall be used in calculating E_{ho} pursuant to Condition 64.1.

[40 C.F.R. 60.45b(h), Subpart Db]

65. For PM, EU IDs 4 and 113. The Permittee shall determine compliance with the PM emission and opacity limits under Condition 62, as follows:

[18 AAC 50.040(a)(2)(C) & (j) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.46b(b), (d), & (j), Subpart Db]

65.1. Except as provided in Condition 65.2, for EU ID 113, to determine compliance with the PM emission limits in Condition 62.2, the Permittee shall conduct an initial performance test as required under Condition 56, and shall conduct subsequent performance tests as requested by the EPA or the Department, using the applicable procedures and reference methods listed below and as specified under 40 C.F.R. 60.46b(d)(1) through (6):

a. Method 3A or 3B of 40 C.F.R. 60 Appendix A-2 is used for gas analysis when applying Method 5 of 40 C.F.R. 60 Appendix A-3 of this part or Method 17 of 40 C.F.R. 60 Appendix A-6 of this part.

b. Method 5, 5B, or 17 of 40 C.F.R. 60 Appendix A shall be used to measure the concentration of PM;

c. Method 1 of 40 C.F.R. 60 Appendix A is used to select the sampling site and the number of traverse sampling points;

d. For Method 5 of 40 C.F.R. 60 Appendix A, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at 160±14 °C (320±25 °F).

e. For determination of PM emissions, the oxygen (O_2) or CO_2 sample is obtained simultaneously with each run of Method 5, 5B, or 17 of 40 C.F.R. 60 Appendix A by traversing the duct at the same sampling location.

f. For each run using Method 5, 5B, or 17 of 40 C.F.R. 60 Appendix A, the emission rate expressed in ng/J heat input is determined using

(i) the O_2 or CO_2 measurements and PM measurements obtained under this condition.

(ii) the dry basis F factor; and

(iii) the dry basis emission rate calculation procedure contained in Method 19 of 40 C.F.R. 60 Appendix A.

[40 C.F.R. 60.46b(b) & (d)(1) – (6), Subpart Db]

65.2. For EU ID 113, in place of PM testing with Method 5, 5B or 17 of 40 C.F.R. 60 Appendix A, the Permittee may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. If the Permittee elects to continuously monitor PM emissions instead of conducting performance testing using Method 5, 5B or 17 of 40 C.F.R. 60 Appendix A the Permittee shall comply with the requirements, as specified below:

a. Notify the Administrator one month before starting use of the system.

b. Notify the Administrator one month before stopping use of the system.

c. Install, evaluate, and operate the monitor in accordance with 40 C.F.R. 60.13 (see Condition 60).

d. Complete the initial performance evaluation no later than 180 days after the date of initial startup of the affected facility, as specified under 40 C.F.R. 60.8 (see Condition 56) or within 180 days of notification to the Administrator of use of the CEMS if the Permittee was previously determining compliance by 40 C.F.R. 60 Appendix A Method 5, 5B, or 17 performance tests, whichever is later.

e. Conduct an initial performance test for PM emissions as required under 40 C.F.R. 60.8 (Condition 56). Determine compliance with the PM emission limit by using the CEMS specified in this condition to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of 40 C.F.R. 60 Appendix A, Section 4.1.

f. Compliance with the PM emission limit in Condition 62.2 shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

g. At a minimum, valid CEMS hourly averages shall be obtained for 75 percent of the total operating hours per 30-day rolling average, as specified in Condition 65.2.g(i) below:

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

h. The 1-hour arithmetic averages required under Condition 65.2.g shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 C.F.R. 60.13(e)(2) (Condition 60.4.b).

i. Use all valid CEMS data in calculating average emission concentrations even if the minimum CEMS data requirements of Condition 65.2.g are not met.

j. Operate the CEMS according to Performance Specification 11 in 40 C.F.R. 60 Appendix B.

k. During the correlation testing runs of the CEMS required by Performance Specification 11 in 40 C.F.R. 60 Appendix B, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of 40 C.F.R. 60 Appendix A-3 or Method 17 of 40 C.F.R. 60 Appendix A-6 shall be used; and

(ii) For O_2 (or CO_2), Method 3A or 3B of 40 C.F.R. 60 Appendix A-2, as applicable shall be used.

l. Perform quarterly accuracy determinations and daily calibration drift tests in accordance with Procedure 2 in 40 C.F.R. 60 Appendix F. Perform Relative Response Audit's annually and Response Correlation Audits every 3 years.

m. When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, obtain emissions data by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of 40 C.F.R. 60 Appendix A to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours per 30-day rolling average.

n. Within 90 days after the date of completing each performance test, as defined in 40 C.F.R. 60.8, conducted to demonstrate compliance with this subpart, submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

[40 C.F.R. 60.46b(j)(1) – (14), Subpart Db]

65.3. For EU ID 4 and EU ID 113 (if operating without a PM CEMS), the Permittee shall determine compliance with the opacity limits in Condition 62.1 using Method 9 of 40 C.F.R. Appendix A, as described under Condition 68.3.

[40 C.F.R. 60.46b(b) & (d)(7), Subpart Db]

66. For NO_x, EU IDs 4 and 113. To determine compliance with the NO_x emissions standard required under Condition 63.1 for EU IDs 4 and 113, the Permittee shall conduct the performance test required under Condition 56 using the NO_x continuous monitoring system required under Condition 69, as follows:

[18 AAC 50.040(a)(2)(C) & (j) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.46b(c) & (e), Subpart Db]

66.1. For the initial compliance test, monitor NO_x emissions from EU IDs 4 and 113 for 30 successive steam generating unit operating days[23] and use the 30-day average emission rate to determine compliance with the NO_x emission standard under Condition 63. Calculate the 30-day average emission rate as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

[40 C.F.R. 60.46b(e)(1), Subpart Db]

66.2. For EU ID 113, following the date on which the initial performance test is completed or is required to be completed under Condition 56, whichever date comes first, the Permittee shall determine compliance with the NO_x emission standard in Condition 63 on a continuous basis through the use of a 30-day rolling average emission rate.

a. For each steam generating unit operating day of EU ID 113, calculate a new 30-day rolling average emission rate as the average of all the hourly NO_x emission data for the preceding 30 day steam generating unit operating days.

[40 C.F.R. 60.46b(e)(2), Subpart Db]

[23] As defined in 40 C.F.R. 60.41b, s*team generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

66.3. For EU ID 4, following the date on which the initial performance test is completed or required to be completed under Condition 56, whichever date comes first, the Permittee shall upon request determine compliance with the NO_x standard in Condition 63 through the use of a 30-day performance test.

a. During periods when performance tests are not requested, NO_x emissions data collected pursuant to Condition 69 are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards.

b. For each steam generating unit operating day of EU ID 4, calculate a new 30-day rolling average emission rate as the average of all the hourly NO_x emission data for the preceding 30-day steam generating unit operating days.

[40 C.F.R. 60.46b(e)(4), Subpart Db]

NSPS Subpart Db MR&R Requirements

67. SO_2 Monitoring, EU ID 113. The Permittee shall monitor SO_2 emissions from EU ID 113 to determine compliance with the SO_2 limit in Condition 61.2, as follows:

[18 AAC 50.040(a)(2)(C) & (j) and 50.326(j)]
[40 C.F.R. 71.6(a)(3(i))]
[40 C.F.R. 60.47b(a) – (e), Subpart Db]

67.1. Except as provided in Condition 67.2, the Permittee shall install, calibrate, maintain, and operate CEMS for measuring SO_2 concentrations and either O_2 or CO_2 concentrations and shall record the output of the systems.

a. If the Permittee has installed and certified SO_2 and O_2 or CO_2 CEMS according to the requirements of 40 C.F.R. 75.20(c)(1) and 40 C.F.R. 75 Appendix A, and is continuing to meet the ongoing quality assurance requirements of 40 C.F.R 75.21 and 40 C.F.R. 75 Appendix B, those CEMS may be used to meet the SO_2 emission monitoring requirements of 40 C.F.R. 60.47b, provided that:

(i) When relative accuracy testing is conducted, SO_2 concentration data and CO_2 (or O_2) are collected simultaneously; and

(ii) In addition to meeting the applicable SO_2 and CO_2 (or O_2) relative accuracy specifications in Figure 2 of 40 C.F.R. 75 Appendix B, the relative accuracy (RA) standard in Section 13.2 of Performance Specification 2 in 40 C.F.R. 60 Appendix B is met when the RA is calculated on a lb/MMBtu basis; and

(iii) The reporting requirements of Condition 71 are met. SO_2 and CO_2 (or O_2) data used to meet the requirements of Condition 71 shall not include substitute data values derived from the missing data procedures in 40 C.F.R. 75 Subpart D, nor shall the SO_2 data have been bias adjusted according to the procedures of 40 C.F.R 75.

[40 C.F.R. 60.47b(a) & (a)(1)-(a)(3), Subpart Db]

67.2. As an alternative to operating CEMS as required under Condition 67.1, the Permittee may elect to determine the average SO_2 emissions and percent reduction, as follows:

a. Collect coal samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to Method 19 of 40 C.F.R. 60 Appendix A, which provides procedures for converting these measurements into the format to be used in calculating the average SO_2 input rate; or

b. Measure SO_2 according to Method 6B of 40 C.F.R. 60 Appendix A at the inlet or outlet to the SO_2 control system, in accordance with the procedures described in 40 C.F.R. 60.47b(b)(2).

c. Determine daily SO_2 emission rate, E_D, using the procedure described in Method 6A, Section 7.6.2 (Equation 6A-8) of 40 C.F.R. 60 Appendix A and stated in ng/J (lb/MMBtu) heat input.

d. Calculate the mean 30-day emission rate using the daily measured values, as determined in Condition 67.2.c, for 30 successive boiler operating days using Method 19, Equation 19-20 of 40 C.F.R. 60 Appendix A.

[40 C.F.R. 60.47b(b) & (b)(1)-(b)(4), Subpart Db]

67.3. The Permittee shall obtain emission data for at least 75 percent of the operating hours in at least 22 of the 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the Permittee shall supplement the emission data with data collected with other monitoring systems as approved by the EPA Administrator or the reference methods and procedures as described in Condition 67.2.

[40 C.F.R. 60.47b(c), Subpart Db]

67.4. Calculate the average emission rates under Condition 61.2 using the 1-hour average SO_2 emission rates measured by the CEMS required by Conditions 67.1 and 60.6, expressed in ng/J or lb/MMBtu heat input.

a. Each 1-hour average SO_2 emission rate must be based on 30 or more minutes of steam generating unit operation; calculate the hourly averages according to Condition 60.6.b.

b. Hourly SO_2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

[40 C.F.R. 60.47b(d), Subpart Db]

67.5. The Permittee shall follow the procedures in 40 C.F.R. 60.13 (Condition 60) for installation, evaluation, and operation of the CEMS.

a. Except as provided for in Condition 67.5.d, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of 40 C.F.R. 60 Appendix B.

b. Except as provided in Condition 67.5.d, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of 40 C.F.R. 60 Appendix F.

c. For EU ID 3 combusting coal, alone or in combination with other fuels, the span value of the SO_2 CEMS at the inlet to the SO_2 control device is 125 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO_2 control device is 50 percent of the maximum estimated hourly potential SO_2 emissions of the fuel combusted. Alternatively, SO_2 span values determined according to Section 2.1.1 of 40 C.F.R. 75 Appendix A may be used.

d. As an alternative to meeting the requirements of Conditions 67.5.a and 67.5.b, the Permittee may elect to implement the following alternative data accuracy assessment procedures:

(i) For all required CO_2 and O_2 monitors and for SO_2 and NO_x monitors with span values greater than or equal to 100 ppm, the daily calibration error test and calibration adjustment procedures described in Section 2.1.1 and 2.1.3 of 40 C.F.R. 75 Appendix B may be followed instead of the calibration drift (CD) assessment procedures in Procedure 1, Section 4.1 of 40 C.F.R. 60 Appendix F;

(ii) For all required CO_2 and O_2 monitors and for SO_2 and NO_x monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with Section 2.2.1 of 40 C.F.R. 75 Appendix B, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, Section 5.1.2 of 40 C.F.R. 75 Appendix F. If this option is selected:

(A) the frequency of the linearity checks shall be as specified in Section 2.2.1 of 40 C.F.R. 75, Appendix B;

(B) the applicable linearity specifications in Section 3.2 of 40 C.F.R. 75 Appendix A shall be met;

(C) the data validation and out-of-control criteria in Section 2.2.3 of 40 C.F.R. 75 Appendix B shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, Section 5.2 of 40 C.F.R. 60 Appendix F; and

(D) the grace period provisions in Section 2.2.4 of 40 C.F.R. 75 Appendix B shall apply.

(E) For the purposes of data validation under Subpart Db, the cylinder gas audits described in Procedure 1, Section 5.1.2 of 40 C.F.R. 60 Appendix F shall be performed for SO_2 and NO_x span values less than or equal to 30 ppm; and

(iii) For SO_2, CO_2, and O_2 monitoring systems and for NO_x emission rate monitoring systems, RATAs may be performed in accordance with Section 2.3 of 40 C.F.R. 75 Appendix B instead of following the procedures described in Procedure 1, Section 5.1.1 of 40 C.F.R. 60 Appendix F. If this option is selected:

(A) the frequency of each RATA shall be as specified in Section 2.3.1 of 40 C.F.R. 75 Appendix B;

(B) the applicable relative accuracy specification shown in Figure 2 in 40 C.F.R. 75 Appendix B shall be met;

(C) the data validation and out-of-control criteria in Section 2.3.2 of 40 C.F.R. 75 Appendix B shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, Section 5.2 of 40 C.F.R. 60 Appendix F; and

(D) the grace period provisions in Section 2.3.2 of 40 C.F.R. 75 Appendix B shall apply.

(E) For the purposes of data validation under Subpart Db, the relative accuracy specification in Section 13.2 of Performance Specification 2 in 40 C.F.R. 60 Appendix B shall be met on a lb/MMBtu basis for SO_2 (regardless of SO_2 emission level during the RATA), and for NO_x when the averaging NO_x emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

[40 C.F.R. 60.47b(e), Subpart Db]

68. PM and Opacity Monitoring, EU IDs 4 and 113. The Permittee shall monitor PM and opacity emissions from EU IDs 4 and 113 to determine compliance with the limits under Condition 62, as follows:

[18 AAC 50.040(a)(2)(C) & (j)(3) and 50.326(j)]
[40 C.F.R. 71.6(a)(3(i))]
[40 C.F.R. 60.48b(a), (j), (k), & (l), Subpart Db]

68.1. Except as provided in Condition 68.4, the Permittee shall install, calibrate, maintain, and operate a COMS for measuring the opacity of stack emissions discharged to the atmosphere from EU ID 4 and EU ID 113 (if operating without a PM CEMS) and record the output of the system.

[40 C.F.R. 60.48b(a), Subpart Db]

68.2. The Permittee shall follow the procedures under 40 C.F.R. 60.13 (Condition 60) for installation, evaluation, and operation of the continuous monitoring systems.

a. For EU ID 113 combusting coal and woody biomass, the span value for a COMS shall be between 60 and 80 percent.

[40 C.F.R. 60.48b(e)(1), Subpart Db]

68.3. For EU ID 4 and EU ID 113 (if operating without a PM CEMS), subject to the opacity standard under Condition 62.1 and meeting any of the criteria under Condition 68.4, if electing not to use a COMS, the Permittee shall demonstrate compliance with the limit in Condition 62.1, as follows:

[40 C.F.R. 60.48b(a) & (a)(1) – (4), Subpart Db]

a. Conduct a performance test using Method 9 of Appendix A-4 *(Visual Determination of the Opacity of Emissions from Stationary Sources)* and the procedures in 40 C.F.R. 60.11 Subpart A within 45 days of stopping an existing COMS, or within 180 days after initial startup of the emissions unit.

b. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

c. Except as provided in Condition 68.3.d, the Permittee shall conduct subsequent Method 9 performance tests according to the applicable schedule in Conditions 68.3.c(i) through 68.3.c(iv), as determined by the most recent Method 9 performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next operating day of each of EU IDs 4 and 113 operates, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next operating day of each of EU IDs 4 and 113 operates, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but is less than or equal to 10 percent, a subsequent Method 9 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next operating day of each of EU IDs 4 and 113 operates, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

[40 C.F.R. 60.48b(a)(1)(i) – (iv), Subpart Db]

d. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the Permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using either Method 22[24] in accordance with Condition 68.3.d(i) or digital opacity compliance system in accordance with Condition 68.3.d(ii).

[40 C.F.R. 60.48b(a)(2) & (3), Subpart Db]

(i) Perform subsequent monitoring using Method 22 of 40 C.F.R. 60 Appendix A-7, as follows:

(A) The Permittee shall conduct 10-minute observations (during normal operation) each operating day that EU IDs 4 fires oil and EU ID 113 fires coal or woody biomass, using Method 22 of 40 C.F.R. 60 Appendix A-7 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period.

(1) If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation;

(2) If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period, the Permittee shall either document and adjust the operation of the emissions unit and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation or conduct a new Method 9 performance test using the procedures in Conditions 68.3.a through 68.3.c within 45 calendar days.

(B) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observation shall be resumed.

[40 C.F.R. 60.48b(a)(2)(i) – (ii), Subpart Db]

(ii) Perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the EPA Administrator. The observations shall be similar, but not necessarily identical, to the requirements in Condition 68.3.d. For reference purposes in preparing the monitoring plan, see OAQPS *"Determination of Visible Emission Opacity from Stationary Sources*

[24] Method 22 of 40 C.F.R. 60 Appendix A-7, Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares.

Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. EPA; Office of Air Quality and Planning Standards; Sector Policies and Program Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

[40 C.F.R. 60.48b(a)(3), Subpart Db]

68.4. The Permittee is not required to install or operate a COMS on EU IDs 4 and 113, if:

[40 C.F.R. 60.48b(j), Subpart Db]

a. EU ID 113 uses a PM CEMS to monitor PM emissions; or

[40 C.F.R. 60.48b(j)(1), Subpart Db]

b. EU ID 4 burns only liquid (excluding residual oil) or gaseous fuels with potential SO_2 emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO_2 or PM emissions; the Permittee must maintain fuel records of the sulfur content of the fuels burned, as described under Condition 61.1.a; or

[40 C.F.R. 60.48b(j)(2), Subpart Db]

c. EU ID 113 uses a bag leak detection system to monitor the performance of a fabric filter (baghouse) according to the most current requirements in 40 C.F.R. 60.48Da Subpart Da.

[40 C.F.R. 60.48b(j)(5), Subpart Db]

68.5. To determine compliance with the PM emission limits in Condition 62.2, the Permittee shall monitor EU ID 113 by either

a. conducting subsequent performance tests, as requested by the EPA or the Department, in accordance with Condition 65.1; or

b. using a PM CEMS, in accordance with Condition 65.2 and as follows::

(i) Operate the CEMS and record data during all periods of operation of EU ID 113 except for CEMS breakdowns and repairs; and

(ii) Record data during calibration checks, and zero and span adjustments.

[40 C.F.R. 60.46b(b), (d), & (j) and 60.48b(k), Subpart Db]

69. NO_x Monitoring, EU IDs 4 and 113. The Permittee shall monitor NO_x emissions from each of EU IDs 4 and 113 to determine compliance with the NO_x limit in Condition 63.1, as follows:

[18 AAC 50.040(a)(2)(C) & (j)(3) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 60.48b(b) – (f) & (g)(1), Subpart Db]

69.1. The Permittee shall comply with either Condition 69.1.a or Condition 69.1.b, as follows:

a. Install, calibrate, maintain, and operate CEMS for measuring NO_x and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system; or

[40 C.F.R. 60.48b(b)(1), Subpart Db]

b. If the Permittee has installed a NO_x emission rate CEMS to meet the requirements of 40 C.F.R. 75 and is continuing to meet the ongoing requirements of 40 C.F.R. 75, that CEMS may be used to meet the NO_x emission monitoring requirements of 40 C.F.R. 60.48b(b), except that the Permittee shall also meet the requirements of Condition 71. Data reported to meet the requirements of Condition 71 shall not include data substituted using the missing data procedures in 40 C.F.R. 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 C.F.R. 75.

[40 C.F.R. 60.48b(b)(2), Subpart Db]

69.2. The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by Condition 69.1 and required under 40 C.F.R. 60.13(h) (Condition 60.6) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under Condition 63.1. The 1-hour averages shall be calculated using the data points required under 40 C.F.R. 60.13(h)(2) (Condition 60.6.b).

[40 C.F.R. 60.48b(d), Subpart Db]

69.3. The Permittee shall follow the procedures under 40 C.F.R. 60.13 (Condition 60) for installation, evaluation, and operation of the continuous monitoring systems.

a. For EU ID 4 (combusting oil or natural gas) and EU ID 113 (combusting coal), the span value for NO_x is determined using one of the following procedures:

(i) NO_x span values shall be determined as follows:

(A) for natural gas, the span value is 500 ppm;

(B) for oil, the span value is 500 ppm;

(C) for coal, the span value is 500 ppm; and

(D) for mixtures, the span value is calculated using the following:

Equation 9 $\mathbf{SV = 500(x + y) + 1{,}000z}$

Where:

SV	=	*Span Value, ppm*
x	=	*Fraction of total heat input derived from natural gas;*
y	=	*Fraction of total heat input derived from oil; and*
z	=	*Fraction of total heat input derived from coal.*

(ii) As an alternative to meeting the requirements of Condition 69.3.a(i), the Permittee may elect to use the NO_x span values determined according to Section 2.1.2 in 40 C.F.R. 75 Appendix A.

b. All span values computed under Equation 9 for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under Condition 69.3.a(ii) shall be rounded off according to Section 2.1.2 in 40 C.F.R. 75 Appendix A.

[40 C.F.R. 60.48b(e)(2) – (3), Subpart Db]

69.4. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, obtain emission data by using standby monitoring systems, Method 7 or 7A of 40 C.F.R. 60 Appendix A, or other approved reference methods, to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

[40 C.F.R. 60.48b(f), Subpart Db]

69.5. For EU ID 4 and 113 that has an annual capacity factor for natural gas, distillate oil, gasified coal, or any mixture of these fuels, greater than 10 percent (0.10), the Permittee shall:

a. Comply with the provisions of Condition 69.1 through 69.3; or

b. Monitor steam generating unit operating conditions and predict NO_x emission rates as specified in a plan submitted pursuant to Condition 71.6.

[40 C.F.R. 60.48b(g)(1) – (2), Subpart Db]

70. NSPS Subpart Db Recordkeeping, EU IDs 4 and 113. The Permittee shall keep records for a period of 2 years following the date of such record, and as follows:

[18 AAC 50.040(a)(2)(C) & (j)(3) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[40 C.F.R. 60.49b(o), Subpart Db]

For SO_2 Records:

70.1. For EU ID 113 (if operating with a CEMS), the Permittee shall maintain records of CEMS output as indicated in Condition 67.1.

[40 C.F.R. 60.47b(a), Subpart Db]

For NO_x Records:

70.2. For EU IDs 4 and 113, the Permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, natural gas, and woody biomass for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[40 C.F.R. 60.49b(d)(1), Subpart Db]

70.3. For EU IDs 4 and 113 (if operating with a CEMS), the Permittee shall comply with the following requirements for CEMS:

a. When operating the CEMS required under Condition 69.1, record data during all periods of operation of EU IDs 4 and 113, except for CEMS breakdowns and repairs; and

b. Record data during calibration checks, and zero and span adjustments.

[40 C.F.R. 60.48b(c), Subpart Db]

70.4. For EU IDs 4 and 113 subject to the NO_x standards under Condition 63, the Permittee shall maintain records of the following information for each steam generating unit operating day:

a. Calendar date;

b. The average hourly NO_x emission rate (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

c. The 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

d. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emission standards under Condition 63, with the reasons for such excess emissions as well as a description of corrective actions taken;

e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

f. Identification of the times when the emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

g. Identification of the "F" factor used for calculations, method of determination, and type of fuel combusted;

h. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with the Performance Specification 2 or 3; and

j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 C.F.R. 60 Appendix F, Procedure 1.

[40 C.F.R. 60.49b(g)(1) – (10), Subpart Db]

70.5. If electing to demonstrate compliance with the NO_x standard in Condition 63.1 through the monitoring of steam generating unit operating conditions in the provisions of Condition 69.5.b, the Permittee shall:

a. Maintain the records in Condition 70.4 as specified in the plan submitted pursuant to Condition 71.6.

b. If the plan is approved, the Permittee shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan.

[40 C.F.R. 60.49b(c), Subpart Db]

For PM and Opacity Records:

70.6. For EU IDs 4 and 113 (if operating with a COMS), the Permittee shall maintain records of COMS output as indicated in Condition 68.1.

[40 C.F.R. 60.48b(a), Subpart Db]

70.7. For EU IDs 4 and 113 subject to the opacity standard in Condition 62.1, the Permittee shall maintain records of opacity. In addition, if the Permittee elects to monitor emissions according to the requirements in Conditions 68.1 and 68.3, then the Permittee shall maintain records according to the requirements specified in Conditions 70.7.a through 70.7.c, as applicable to the visible emissions monitoring method used.

a. For each performance test conducted using Method 9, the Permittee shall keep the records including the information specified in Conditions 70.7.a(i) through 70.7.a(iii).

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets.

b. For each performance test conducted using Method 22, the Permittee shall keep records including the information specified in Conditions 70.7.b(i) through 70.7.b(iv).

(i) Dates and time intervals of each visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected emissions unit operation by the Permittee to demonstrate compliance with the applicable monitoring requirements.

c. For each digital opacity compliance system, the Permittee shall maintain records and submits reports according to the requirements specified in the site-specific monitoring plan approved by the EPA Administrator.

[40 C.F.R. 60.49b(f), Subpart Db]

71. NSPS Subpart Db Reporting Requirements, EU IDs 4 and 113. The Permittee shall submit reports as follows:

[18 AAC 50.040(a)(2)(C) & (j)(3) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]

71.1. For EU IDs 4 and 113, the Permittee shall submit to the EPA and the Department, in accordance with Condition 135, the performance test data from the initial performance tests required under Conditions 64, 65, and 66 and the performance evaluation of the CEMS using the applicable performance specifications in 40 C.F.R. 60 Appendix B.

[40 C.F.R. 60.49b(b), Subpart Db]

71.2. The Permittee shall submit the following to the EPA Administrator with the semi-annual reports required under Condition 54:

a. For EU IDs 4 and 113 subject to the continuous monitoring requirements for NO_x standards under Condition 69, the information required under Condition 70.4;

[40 C.F.R. 60.49b(i), Subpart Db]

b. For EU ID 113 subject to the SO_2 standards in Condition 61.2 and the compliance and performance testing requirements of Condition 64, the following information:

(i) Calendar dates covered in the reporting period;

(ii) Each 30-day average SO_2 emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(iii) Identification of the steam generating unit operating days that coal was combusted and for which SO_2 or diluent (O_2 or CO_2) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

(iv) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal was not combusted in the steam generating unit;

(v) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(vi) Identification of times when hourly averages have been obtained based on manual sampling methods;

(vii) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(viii) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;

(ix) Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 C.F.R. 60 Appendix F, Procedure 1; and

(x) The annual capacity factor of each fuel fired as provided under Condition 70.2.

[40 C.F.R. 60.49b(j) & (k), Subpart Db]

c. For EU ID 113 subject to the SO_2 standards in Condition 61.2 for which the minimum amount of data required in Condition 67.3 were not obtained during the reporting period, the following information in addition to that required under Condition 71.2.b:

(i) The number of hourly averages available for outlet emission rates and inlet emission rates;

(ii) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of 40 C.F.R. 60 Appendix A, Section 7;

(iii) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of 40 C.F.R. 60 Appendix A, Section 7; and

(iv) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of 40 C.F.R. 60 Appendix A, Section 7.

[40 C.F.R. 60.49b(m), Subpart Db]

71.3. The Permittee shall submit excess emissions reports in accordance with Condition 53 for any excess emissions that occurred during the reporting period as described below:

a. For EU IDs 4 and 113 (if operating without a PM CEMS), for the purposes of Condition 62.1, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under Condition 62.1.

[40 C.F.R. 60.49b(h)(1) & (h)(3), Subpart Db]

b. For EU IDs 4 and 113, for the purposes of Condition 69.5.a, excess emissions are defined as any calculated 30-day rolling average NO_x emission rate, as determined under Condition 66, that exceeds the applicable emissions limit in Condition 63.1.

[40 C.F.R. 60.49b(h)((2) & (h)(4), Subpart Db]

71.4. The reporting period for the reports required under Subpart Db is each 6 month period. All reports shall be submitted to the EPA Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[40 C.F.R. 60.49b(w), Subpart Db]

71.5. The Permittee may submit electronic quarterly reports for SO_2, NO_x, and/or opacity in lieu of submitting the written reports required under Condition 71.2.a, 71.2.b, or 71.3. The format of each quarterly electronic report shall be coordinated with the EPA. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the Permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the Permittee shall coordinate with the EPA to obtain their agreement to submit reports in this alternative format.

[40 C.F.R. 60.49b(v), Subpart Db]

71.6. If electing to demonstrate compliance with the NO_x standard in Condition 63.1 through the monitoring of steam generating unit operating conditions in the provisions of Condition 69.5.b, the Permittee shall:

a. Submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in Condition 69.5.b and the records to be maintained in Condition 70.4.

(i) This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected EU.

(ii) The plan shall contain all the information specified in 40 C.F.R. 60.49b(c)(1) – (c)(3).

[40 C.F.R. 60.49b(c)(1) – (c)(3), Subpart Db]

71.7. For EU IDs 4 and 113, the Permittee shall report in accordance with Condition 141 in the event of excess emissions or deviation from any of the requirements of Conditions 61 through 71.

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

NSPS Subpart Y – Coal Preparation and Processing Plants, EU IDs 115 – 136

72. NSPS Subpart Y Opacity and PM Emission Standards. On and after the date on which the performance test is conducted or required to be completed under Condition 56,

whichever date comes first, the Permittee shall meet the requirements in Conditions 72.1 and 72.2.

72.1. For the coal handling system consisting of EU IDs 115 through 136 listed in Table A, the Permittee shall not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

72.2. For EU IDs 128 through 130 listed in Table A, the Permittee must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

[18 AAC 50.040(a)(2)(T) & (j)(3) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)
[40 C.F.R. 60.254(b), (b)(1), and (b)(2), Subpart Y]

73. NSPS Subpart Y Performance Tests and other Compliance Requirements. The Permittee shall comply with the following to demonstrate compliance with the emission standards in Condition 72:

[18 AAC 50.040(a)(2)(T) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]

73.1. For each of EU IDs 128 through 130 and the building enclosing EU IDs 115 through 127 (per Condition 73.3), the Permittee shall conduct performance tests according to the requirements of Condition 56 and the methods identified in Condition 74 to demonstrate compliance with the opacity and PM emission standards in Condition 72, as follows:

a. Except as provided for in Conditions 73.4 and 73.5, for each of EU IDs 128 through 130 subject to PM standard in Condition 72.2 and the building enclosing EU IDs 115 through 127 (per Condition 73.3), conduct an initial performance test. Thereafter, a new performance test must be conducted according to the requirements in Conditions 73.1.a(i) through 73.1.a(iii).

(i) If the results of the most recent performance test demonstrate that emissions from the affected facility **are greater than 50 percent** of the applicable emissions standard, a new performance test must be conducted **within 12 calendar months** of the date that the previous performance test was required to be completed.

(ii) If the results of the most recent performance test demonstrate that emissions from the affected facility are **50 percent or les**s of the applicable emissions standard, a new performance test must be conducted **within 24 calendar months** of the date that the previous performance test was required to be completed.

(iii) The Permittee of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

[40 C.F.R. 60.255(b)(1)(i) - (iii), Subpart Y]

b. For each of EU IDs 128 through 130 and the building enclosing EU IDs 115 through 127 (per Condition 73.3) subject to the opacity standard in Condition 72.1, the Permittee shall conduct an initial performance test. Thereafter, a new performance test must be conducted according to the requirements in Conditions 73.1.b(i) through 73.1.b(ii), except as provided for in Condition 73.6.

(i) If **any 6-minute average opacity reading** in the most recent performance test **exceeds half the applicable opacity limit**, a new performance test must be conducted **within 90 operating days** of the date that the previous performance test was required to be completed.

(ii) If **all 6-minute average opacity readings** in the most recent performance test are **equal to or less than half the applicable opacity limit**, a new performance test must be conducted **within 12 calendar months** of the date that the previous performance test was required to be completed.

[40 C.F.R. 60.255(b)(2)(i) - (ii), Subpart Y]

73.2. For EU IDs 131 through 136, compliance with the opacity standard in Condition 72.1 is demonstrated through compliance of EU ID 128 (for EU IDs 131 and 134), EU ID 129 (for EU IDs 132 and 135), and EU ID 130 (for EUIDs 133 and 136) with the opacity standard in Condition 72.1.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) & (c)(6)]
[Conditions 37.7 – 37.9, Minor Permit No. AQ0316MSS06, Revision 2, April 14, 2017]

73.3. If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in Condition 72, then the facility shall be deemed to be in compliance with such standards.

[40 C.F.R. 60.255(c), Subpart Y]

73.4. If any of EU IDs 128 through 130 subject to the PM emission standard in Condition 72.2 uses a control device with a design controlled potential PM emissions rate of 1.0 Mg (1.1 tons) per year or less then the Permittee is exempted from the requirements of Conditions 73.1.a(i) and 73.1.a(ii), provided that the Permittee meets all of the following conditions:

a. PM emissions, as determined by the most recent performance test, are less than or equal to the applicable limit;

b. The control device manufacturer's recommended maintenance procedures are followed; and

c. All 6-minute average opacity readings from the most recent performance test are equal to or less than half the opacity limit in Condition 72.1 or the monitoring requirements in Conditions 73.5 or 73.6 are followed.

[40 C.F.R. 60.255(d), Subpart Y]

73.5. The Permittee may use a single PM performance test for EU IDs 128 through 130 if these emissions units use identical control devices to demonstrate that any of EU IDs 128 through 130 are in compliance with the applicable emissions standards, provided that the Permittee meets all of the conditions specified in Conditions 73.5.a through 73.5.c.

a. PM emissions from the most recent performance test for each individual affected facility are 90 percent or less of the applicable PM standard;

b. The manufacturer's recommended maintenance procedures are followed for each control device; and

c. A performance test is conducted on each affected facility at least once every 5 calendar years.

[40 C.F.R. 60.255(e), Subpart Y]

73.6. As an alternative to meeting the requirements in Condition 73.1.b, for EU IDs 128 through 130 and the building enclosing EU IDs 115 through 127 (per Condition 73.3), the Permittee may elect to comply with the requirements set out in any of Conditions 73.6.a, 73.6.b or 73.6.c:

a. Monitor visible emissions from each affected facility according to the requirements in Conditions 73.6.a(i) through 73.6.a(iii).

(i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in Section 2.3 of Method 22 of 40 C.F.R. Appendix A-7. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of 40 C.F.R. 60 Appendix A-4, performance test must be conducted within 45 operating days.

(ii) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(iii) Conduct a performance test using Method 9 of 40 C.F.R. 60 Appendix A-4 at least once every 5 calendar years for each affected facility.

b. Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the EPA Administrator or delegated authority.

(i) The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day.

(ii) An approvable monitoring plan[25] must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. . This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(iii) The Permittee shall implement the monitoring plan approved by the EPA Administrator or delegated authority.

[40 C.F.R. 60.255(f), Subpart Y]

c. The Permittee may install, operate, and maintain a continuous opacity monitoring system (COMS). The Permittee shall install, calibrate, maintain, and continuously operate each COMS used to comply with provisions of this subpart according to the requirements in Conditions 73.6.c(i) and 73.6.c(ii).

(i) The COMS must meet Performance Specification 1 in 40 C.F.R. 60 Appendix B.

(ii) The COMS must comply with the quality assurance requirements in 40 C.F.R. 60.255(g)(2)(i) through (v).

[40 C.F.R. 60.255(g)(1) & (2), Subpart Y]

74. NSPS Subpart Y Test Methods and Procedures. For EU IDs 128 through 130 and the building enclosing EU IDs 115 through 127, the Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(T) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]

74.1. The Permittee must determine compliance with the opacity standard in Condition 72.1 as follows:

a. The Permittee must use Method 9 of 40 C.F.R. 60 Appendix A-4 and the procedures in 40 C.F.R. 60.11 Subpart A to determine opacity, with the exceptions specified in Conditions 74.1.a(i) and 74.1.a(ii).

(i) The duration of the Method 9 of 40 C.F.R. 60 Appendix A-4 performance test shall be 1 hour (ten 6-minute averages).

[25] For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. EPA; Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(ii) If, during the initial 30 minutes of the observation of a Method 9 of 40 C.F.R. 60 Appendix A-4 performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

b. The Permittee must use the additional requirements specified in Conditions 74.1.b(i) through 74.1.b(iii) to determine opacity for fugitive coal dust emissions sources.

(i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

(ii) The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

(iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

c. A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in Conditions 74.1.c(i) through 74.1.c(iii) are met.

(i) No more than three emissions points may be read concurrently.

(ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

[40 C.F.R. 60.257(a)(1) - (3), Subpart Y]

74.2. The Permittee must conduct all performance tests to demonstrate compliance with the PM emissions standards specified in Condition 72.2 according to the requirements in Condition 56 using the applicable test methods and procedures in 40 C.F.R. 60.257(b)(1) through (5).

[40 C.F.R. 60.257(b)(1) - (5), Subpart Y]

75. NSPS Subpart Y Recordkeeping. The Permittee shall keep records as follows:

[18 AAC 50.040(a)(2)(T) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]

75.1. Maintain a logbook (written or electronic) onsite and make it available upon request. The logbook shall record the following:

a. the manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities; any variance from manufacturer recommendation (if any), shall be noted;

b. the date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions; results from the actions shall be noted;

c. the amount and type of coal processed each calendar month;

d. the amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant;

e. monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems; any variance from the manufacturer's recommendations (if any), shall be noted; and

f. a copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described; any variance from plan (if any), shall be noted.

76. NSPS Subpart Y Reporting. The Permittee shall report as follows:

[18 AAC 50.040(a)(2)(T) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)]

76.1. Report in accordance with Condition 53 all 6-minute average opacities that exceed the applicable standard in Condition 72.1.

[40 C.F.R. 60.258(b)(3), Subpart Y]

76.2. Submit the results of initial performance tests to the EPA Administrator, consistent with the provisions of Condition 56. If the Permittee elects to comply with the reduced performance testing provisions of Condition 73.3 or 73.4, then the Permittee shall include in the performance test report identification of each affected facility that will be subject to the reduced testing. If the Permittee elects to comply with Condition 73.4, then the Permittee shall also include information which demonstrates that the control devices are identical.

76.3. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with Subpart Y, the Permittee must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (i.e.*,* Method 9 of 40 C.F.R. Appendix A-4 opacity performance tests). The Permittee must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

76.4. For EU IDs 115 – 136, the Permittee shall report in accordance with Condition 141 in the event of excess emissions or deviation from any of the requirements of Conditions 61 through 71.

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

NSPS Subpart IIII[26] – Compression Ignition Internal Combustion Engine (CI ICE), EU IDs 27, 29, 34, and 35

77. NSPS Subpart IIII Applicability and General Compliance Requirements. For each of EU IDs 27, 29, 34 and 35 listed in Table A, the Permittee shall comply with the applicable requirements for a stationary CI ICE whose construction[27], modification[28], or reconstruction[29] commences after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006 and is not a fire pump engine.

77.1. For EU IDs 27, 29, 34 and 35, the Permittee shall comply with the applicable provisions of 40 C.F.R. 60 Subpart A as specified in Table 8 to Subpart IIII, and applicable provisions of Subpart IIII as specified in Conditions 78 through 82.

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4200(a)(2)(i), 60.4218 and Table 8, Subpart IIII

78. NSPS Subpart IIII GAPCP. Except as permitted under Condition 81.3, the Permittee shall operate and maintain EU IDs 27, 29, 34 and 35 and control device according to the manufacturer's written instructions, may change only those emission-related settings that are permitted by the manufacturer, and shall meet the requirements of Condition 80 and the applicable requirements of 40 C.F.R. 1068. In addition, the Permittee shall operate and maintain each of EU IDs 27, 29, 34 and 35 that achieves the emissions standards as required in Condition 80 over the entire life of the engine.

[40 C.F.R. 60.4206, 60.4209, and 60.4211(a), Subpart IIII]

[26] The provisions of NSPS Subpart IIII listed in Conditions 77 through 83 are current as amended through December 4, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.
[27] For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
[28] As defined in 18 AAC 50.990(59).
[29] As defined in 18 AAC 50.990(88).

79. NSPS Subpart IIII Fuel Requirements. For EU IDs 27, 29, 34, and 35, the Permittee must use diesel fuel that meets the ULSD per-gallon standards of 40 C.F.R. 1090.305 for nonroad diesel fuel, as follows:

79.1. **Sulfur Standard:** Maximum sulfur content of 15 parts per million (ppm); and

79.2. **Cetane Index or Aromatic Content:**

a. Minimum cetane index of 40, or

b. Maximum aromatic content of 35 volume percent.

[18 AAC 50.040(a)(2)(OO) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4207(b), Subpart IIII and 1090.305, Subpart D]

80. NSPS Subpart IIII Emission Standards. The Permittee shall comply with the following emission standards:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]

80.1. Exhaust emissions from EU IDs 27, 29, and 34 (2007 model year and later non-emergency and emergency stationary CI ICE with a displacement of less than 10 L/cyl) shall not exceed the following applicable exhaust emission standards in 40 C.F.R. 89.112 (Tier 3 emission factors) for new nonroad CI engines for all pollutants, for the same displacement and maximum engine power:

a. 4.0 g/kW-hr (or 3.0 g/Hp-hr) for NMHC + NO_x;

b. 3.5 g/kW-hr (or 2.6 g/Hp-hr) for CO; and

c. 0.20 g/kW-hr (or 0.15 g/Hp-hr) for PM.

[40 C.F.R. 60.4201(a) and 60.4204(b), Subpart IIII]
[40 C.F.R. 60.4202(a)(2) and 60.4205(b), Subpart IIII]
[40 C.F.R. 89.112(a) & Table 1, Subpart B]

80.2. Exhaust emissions from EU ID 35 (2007 model year and later emergency stationary CI ICE with a displacement of less than 10 L/cyl) shall not exceed the following applicable exhaust emission standards (Tier 2 emission factors) for new nonroad CI engines in 40 C.F.R. 89.112 for all pollutants, for the same displacement and maximum engine power, as follows:

a. 6.4 g/kW-hr (or 4.8 g/Hp-hr) for NMHC + NO_x;

b. 3.5 g/kW-hr (or 2.6 g/ Hp-hr) for CO; and

c. 0.20 g/kW-hr (or 0.15 g/Hp-hr) for PM.

[40 C.F.R. 60.4202(a)(2) and 60.4205(b), Subpart IIII]
[40 C.F.R. 89.112(a) & Table 1, Subpart B]

80.3. Unless EU ID 27, 29, 34, and 35 are exempt per 40 C.F.R. 89.113(c),[30] exhaust opacity from the EUs must not exceed

a. 20 percent during the acceleration mode;

b. 15 percent during the lugging mode; and

c. 50 percent during the peaks in either the acceleration or lugging modes.

[40 C.F.R. 60.4201(a) and 60.4204(a), Subpart IIII]
[40 C.F.R. 60.4202(a)(2) and 60.4205(b), Subpart IIII]
[40 C.F.R. 89.113(a), Subpart B]

81. NSPS Subpart IIII Monitoring and Recordkeeping. The Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) & (ii) & (c)(6)]

81.1. For non-emergency stationary CI ICE, EU ID 27, if the engine is equipped with a diesel particulate filter to comply with the emission standards in Condition 80.1, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

a. Keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

[40 C.F.R. 60.4209(b) & 60.4214(c) , Subpart IIII]

81.2. For EU IDs 27, 29, 34, and 35, demonstrate compliance with the emission standards by purchasing an engine certified to the applicable emission standards under Condition 80. The engines must be installed and configured according to the manufacturer's specifications, except as permitted in Condition 81.3.

[40 C.F.R. 60.4209 and 60.4211(c), Subpart IIII]

81.3. If the Permittee does not install, configure, operate, and maintain EU IDs 27, 29, 34, and 35 and control devices according to the manufacturer's emission-related written instructions as required in Condition 78, or changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

a. For EU IDs 27, 29, 34, and 35:

(i) Keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[30] Per 40 C.F.R. 89.113(c), The following engines are exempt from the requirements of 40 C.F.R. 89.113: (1) Single-cylinder engines; (2) Propulsion marine diesel engines; and (3) Constant-speed engines.

(ii) In addition, conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

[40 C.F.R. 60.4209 and 60.4211(g)(2) & (3), Subpart IIII]

b. For EU ID 27:

(i) Conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first thereafter, to demonstrate compliance with the applicable emission standards.

[40 C.F.R. 60.4209 and 60.4211(g)(3), Subpart IIII]

c. Conduct performance tests and meet the not-to-exceed (NTE) standards in accordance with the applicable requirements indicated in 40 C.F.R. 60.4212(a) and (c).

[40 C.F.R. 60.4204(d), 60.4205(e) and 60.4212(a) & (c), Subpart IIII]

81.4. For the emergency stationary ICEs, EU IDs 29, 34, and 35, the Permittee shall comply with the following requirements for emergency stationary CI ICE under Subpart IIII:

a. For EU IDs 34 and 35, emergency stationary CI ICEs that do not meet the standards applicable to non-emergency engines, install a non-resettable hour meter prior to startup of the engines.

(i) Keep records of the following:

(A) the time of operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter, and

(B) the reason the engine was in operation during that time.

[40 C.F.R. 60.4209(a) & 60.4214(b), Subpart IIII]

b. For EU IDs 29, 34, and 35, operate the EUs according to the requirements in Conditions 81.4.b(i) through 81.4.b(iii). In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 81.4.b(i) through 81.4.b(iii), is prohibited. If the Permittee does not operate the engine according to the requirements in Conditions 81.4.b(i) through 81.4.b(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) The Permittee may operate EU IDs 29, 34, and 35 for the purposes specified in Conditions 81.4.b(ii)(A) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 81.4.b(iii) counts as part of the 100 hours per calendar year allowed by this Condition 81.4.b(ii).

(A) EU IDs 29, 34, and 35 may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(iii) EU IDs 29, 34, and 35 may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 81.4.b(ii). The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. 60.4209 and 60.4211(f)(1) – (3), Subpart IIII]

81.5. For records of compliance with the fuel requirements under Condition 79, keep receipts that specify the fuel grade and amount received.

[40 C.F.R. 71.6(a)(3)(ii) & (c)(6)]

82. NSPS Subpart IIII Reporting. The Permittee shall report as follows:

82.1. Include with the operating report required under Condition 142 a copy of the following records for the period covered by the report:

a. Records required in Conditions 81.1.a, as applicable;

b. A summary of the results of performance tests conducted under Condition 81.3, as applicable,

c. Records required in Condition 81.4.a(i); and

d. Records of receipts required in Condition 81.5.

82.2. Report in accordance with Condition 141 if any of the requirements in Conditions 77 through 82 was not met.

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

83. NSPS Subpart IIII Deadline for Importing or Installing Stationary CI ICE in Previous Model Years. The Permittee shall comply with the following:

[18 AAC 50.040(a)(2)(OO) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 60.4200(a)(4) and 60.4208(a) – (i), Subpart IIII]

83.1. The Permittee shall not install stationary CI ICE units in previous (2007 – 2017) model years after the dates and as specified in 40 C.F.R. 60.4208(a) – (g).

[40 C.F.R. 60.4208(a) – (g), Subpart IIII]

83.2. In addition to the requirements specified in 40 C.F.R. 60.4201, 60.4202, 60.4204, and 60.4205, the Permittee shall not import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements and after the dates specified in 40 C.F.R. 60.4208(a) – (g).

[40 C.F.R. 60.4208(h), Subpart IIII]

83.3. The requirements of Condition 83 do not apply to stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[40 C.F.R. 60.4208(i), Subpart IIII]

Requirements for Exemption from 40 C.F.R. 62 Subpart HHH (HMIWI) and 40 C.F.R. 60 Subpart EEEE (OSWI) Rules, EU ID 9A

84. The Permittee shall burn in EU ID 9A wastes that are hospital/medical/infectious (HMI) wastes and pathological wastes in accordance with the limitations specified in Conditions 84.1 and 84.2, and shall comply with Condition 84.3.

[18 AAC 50.040(j)(3) & 50.326(j)(4)]
[40 C.F.R. 71.6(a)(1) & (3) and 71.6(c)(6)]

HMIWI Rules Exemption Requirements under 40 C.F.R. 62 Subpart HHH

84.1. To maintain exemption allowed for a co-fired combustor[31] under 40 C.F.R. 62.14400(b)(2) Subpart HHH (Federal Plan for Hospital/Medical/Infectious Waste Incinerators, HMIWI), the Permittee shall not incinerate in EU ID 9A a combination of HMI wastes that is more than 10 percent of the total amount, by weight, of the incinerated wastes, as measured on a calendar quarter basis. Monitor, record and report in accordance with Condition 84.3.

[18 AAC 50.040(g)(3) & (j)(3) and 50.326(j)(4)]

[31] As defined in 40 C.F.R. 62.14490, "*Co-fired combustor* means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted."

[40 C.F.R. 71.6(a)(1) and 71.6(c)(6)]
[40 C.F.R. 62.14400(b)(2) & 62.14490, Subpart HHH]

OSWI Rules Exemption Requirements under 40 C.F.R. 60 Subpart EEEE

84.2. To maintain exemption allowed for a pathological waste incineration unit under 40 C.F.R. 60.2887(l) Subpart EEEE (Standards of Performance for Other Solid Waste Incineration (OSWI) Units), the Permittee shall incinerate in EU ID 9A a combination of pathological, low-level radioactive, and/or chemotherapeutic wastes[32] that are 90 percent or more by weight of the total wastes incinerated on a calendar quarter basis, excluding the weight of auxiliary fuel[33] and combustion air. Monitor, record and report in accordance with Condition 84.3.

[18 AAC 50.040(a)(2)(MM) & (j)(3) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(1) and 71.6(c)(6)]
[40 C.F.R. 60.2887(l) and 60.2977, Subpart EEEE]

Monitoring, Recordkeeping, and Reporting of Exemption Requirements

84.3. The Permittee shall monitor, record, and report compliance with the exemption requirements of Conditions 84.1 and 84.2 as follows:

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

a. For each time that EU ID 9A operates during each calendar quarter, monitor and record the following wastes incinerated and fuels burned in EU ID 9A:

(i) the combined weight of HMI wastes;

(ii) the combined weight of pathological, low-level radioactive, and/or chemotherapeutic wastes;

(iii) any other wastes incinerated in EU ID 9A; and

(iv) the weights of auxiliary fuels burned in EU ID 9A.

b. At the end of each calendar quarter, calculate and record the following:

(i) the sum of the weights of each of the waste types (HMI, pathological, low-level radioactive, and/or chemotherapeutic, and other wastes) recorded in Conditions 84.3.a(i) through 84.3.a(iii) during the calendar quarter;

(ii) the sum of the weights of all of the wastes recorded in Condition 84.3.b(i);

[32] As defined in 40 C.F.R. 60.2977, "*Pathological waste"* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable); "*Low-level radioactive waste"* means waste material that contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable Federal or State standards for unrestricted release; and "*Chemotherapeutic waste"* means waste material resulting from the production or use of anti-neoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

[33] As defined in 40 C.F.R. 60.2977, "*Auxiliary fuel* means natural gas, liquified petroleum gas, fuel oil, or diesel fuel."

(iii) the sum of the weights of all auxiliary fuels recorded in Condition 84.3.a(iv);

(iv) the calendar quarter percent by weight of the combined HMI wastes, calculated by dividing the corresponding calendar quarter total weight of HMI wastes (as determined in Conditions 84.3.b(i)) by the calendar quarter total combined weights of all of the wastes incinerated and auxiliary fuels burned (as determined in Conditions 84.3.b(ii) and 84.3.b(iii)) and multiplying the quotient by 100; and

(v) the calendar quarter percent by weight of the combined pathological, low-level radioactive, and/or chemotherapeutic wastes, calculated by dividing the corresponding calendar quarter combined total weight of these wastes (as determined in Condition 84.3.b(i)) by the calendar quarter total combined weights of all of the wastes incinerated (as determined in Conditions 84.3.b(ii)) and multiplying the quotient by 100.

c. Maintain the records required under Conditions 84.3.a and 84.3.b for a period of at least 5 years.

[40 C.F.R. 62.14400(b)(2) & (c), Subpart HHH]

d. Report excess emissions and permit deviation in accordance with Condition 141 whenever

(i) a calendar quarter percent weight of the combined HMI wastes calculated in Condition 84.3.b(iv) is more than 10 percent; and

(ii) a calendar quarter percent weight of the pathological wastes calculated in Condition 84.3.b(v) is less than 90 percent.

e. Report in the Operating Report required under Condition 142 all the data recorded under Condition 84.3.b for the calendar quarters covered by the report.

f. Upon request, submit to EPA or the Department the records required under Conditions 84.3.a and 84.3.b that reflect that EU ID 9A continues to meet the definition of "co-fired combustor" in 40 C.F.R. 62.14490 Subpart HHH and the definition of "pathological waste incineration unit" under 40 C.F.R. 60.2977 Subpart EEEE.

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

40 C.F.R. Part 63 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

NESHAP Subpart A – General Provisions

85. NESHAP Subpart A. The Permittee shall comply with the applicable requirements of 40 C.F.R. 63 Subpart A in accordance with the provisions for applicability of Subpart A in

85.1. Table 8 to Subpart ZZZZ for EU IDs 8, 23, 24, 26 and 29 listed in Table A; and

85.2. Table 8 to Subpart JJJJJJ for EU IDs 3, 4, 17 – 22, and 113 listed in Table A.

[18 AAC 50.040(c)(1), (23) & (39), 50.040(j)(4) & (j,) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)]
[40 C.F.R. 63.1-63.15, Subpart A]
[40 C.F.R. 63.6665 and Table 8, Subpart ZZZZ]
[40 C.F.R 63.11235 and Table 8, Subpart JJJJJJ]

NESHAP Subpart ZZZZ[34] – Reciprocating Internal Combustion Engines (RICE), EU IDs 8, 24, 26, 27, 29, 34, and 35)

86. NESHAP Subpart ZZZZ Applicability. The Permittee shall comply with applicable requirements for existing[35] (EU IDs 8, 24, and 26) and new[36] (EU IDs 27, 29, 34, and 35) stationary compression ignition reciprocating internal combustion engines (CI RICE) listed in Table A, located at an area source of hazardous air pollutant (HAP) emissions, as follows:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
40 C.F.R. 71.6((a)(1)
[40 C.F.R. 63.6585(c) & (f)(3), 63.6590(a)(1)(iii), (a)(2)(iii) & (c)(1), and 63.6605(a), Subpart ZZZZ]

86.1. For the existing institutional emergency stationary RICE,[37] EU IDs 8[38] and 24, the Permittee is exempt from the requirements of Subpart ZZZZ, provided that:

[40 C.F.R. 63.6585(f)(3), 63.6640(f)(2)(ii) & (iii), 63.6640(f)(4)(ii), and 63.6675, Subpart ZZZZ]

a. EU IDs 8 and 24 do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the following purposes:

(i) for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3; and

(ii) for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

b. EU IDs 8 and 24 do not operate for the purpose of supplying power as part of a financial arrangement with another entity; and

[34] The provisions of NESHAP Subpart ZZZZ listed in Conditions 86 through 91 are current as amended through December 4, 2020. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.
[35] In accordance with 40 C.F.R. 63.6590(a)(1)(iii), a stationary RICE located at an area source of HAP emissions is *existing* if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
[36] In accordance with 40 C.F.R. 6590(a)(1)(iii) and ((2)(iii), a stationary RICE located at an area source of HAP emissions is *new* if you commenced construction of the stationary RICE on or after June 12, 2006.
[37] *Institutional emergency stationary RICE* means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, **institutions of higher education**, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.
[38] UAF is currently operating EU ID 8 (Peaking/Backup Generator) as an emergency engine.

c. EU IDs 8 and 24 must meet the definition of an emergency stationary RICE in 40 C.F.R. 63.6675 which includes operating according to the provisions specified in 40 C.F.R. 63.6640(f), as specified in Condition 87.

[40 C.F.R. 63.6640(f)(2)(ii) & (iii), 63.6640(f)(4)(ii), and 63.6675, Subpart ZZZZ]

86.2. For EU ID 26, an existing non-emergency stationary RICE unit, the Permittee shall at all times comply with Conditions 88 through 91.

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

86.3. For EU IDs 27, 29, 34, and 35, new stationary RICE units, the Permittee shall meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII in Conditions 77 through 83. No further requirements apply for such engines under 40 C.F.R. 63.

[40 C.F.R. 63.6590(a)(2)(iii) & (c)(i), Subpart ZZZZ]

87. NESHAP Subpart ZZZZ Emergency CI RICE Requirements. For the existing institutional emergency stationary CI RICE, EU IDs 8 and 24, the Permittee shall meet the definition of an "emergency stationary RICE" in 40 C.F.R. 63.6675 and comply with the applicable requirements under 40 C.F.R. 63.6640(f), as follows:

87.1. *Emergency stationary RICE* means any stationary reciprocating internal combustion engine that meets all of the criteria in Conditions 87.1.a and 87.1.b:

a. The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the normal power source is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.; and

b. The stationary RICE is operated under limited circumstances for situations not included in Condition 87.1.a, as specified in Condition 87.2.

[40 C.F.R. 63.6675, Subpart ZZZZ]

87.2. The Permittee must operate EU IDs 8 and 24 according to the requirements of Conditions 87.2.a through 87.2.c. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions 87.2.a through 87.2.c, is prohibited.

a. There is no time limit on the use of EU IDs 8 and 24 in emergency situations.

b. The Permittee may operate each of EU IDs 8 and 24 for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

(i) 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.

c. The Permittee may operate each of EU IDs 8 and 24 up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 87.2.b. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. 63.6640(f)(1), (2)(i) & (4), Subpart ZZZZ]

87.3. The Permittee must comply with the requirements specified in Condition 87.2 in order for EU IDs 8 and 24 to be considered emergency stationary RICE; otherwise, the emissions units are not considered to be emergency stationary RICE under Subpart ZZZZ and must meet all corresponding requirements for non-emergency engines.

[40 C.F.R. 63.6640(f) and 63.6675, Subpart ZZZZ]

87.4. For each of EU IDs 8 and 24, to demonstrate compliance with Condition 87.2, include in the operating report required by Condition 142 records of the operational hours and the reason the engine was in operation, for the period covered by the report.

87.5. Should any of EU IDs 8 and 24 fail to meet the requirements specified in Conditions 86.1 and 87 to be classified as an existing institutional emergency stationary RICE, submit a permit deviation report in accordance with Condition 141.

87.6. For EU ID 8 (Peaking/Backup Generator) that is currently operating as an emergency engine, the Permittee must notify the Department in accordance with Condition 141 when the unit no longer meets the definition of "emergency stationary RICE" under 40 C.F.R. 63.6675, or if the unit fails to meet the exemption requirements allowed under Subpart ZZZZ for an existing institutional emergency stationary RICE, as specified in Condition 86.1.

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

88. NESHAP Subpart ZZZZ GAPCP, Operation and Maintenance Requirements. For EU ID 26, the Permittee shall comply with the following:

[18 AAC 50.040(c)(23) & (j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (3)(i)]

88.1. At all times, operate and maintain EU ID 26, 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 ID 26.

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

88.2. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to either:

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

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

[40 C.F.R. 63.6625(e)(4), 63.6640(a), & Table 6 (item 9), Subpart ZZZZ]

88.3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

[40 C.F.R. 63.6603(a), 63.6625(h) and Table 2d item 1, Subpart ZZZZ]

89. NESHAP Subpart ZZZZ Work and Management Practices Standards and Monitoring. For EU ID 26, the Permittee shall, at all times, be in compliance with the following management practices:

[18 AAC 50.040(c)(23) & (j) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (3)(i)]

89.1. Except during periods of startup, the Permittee shall meet the following requirements:

a. Except as allowed by Condition 89.2, change oil and filter every 1,000 hours of operation or annually, whichever comes first;

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

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

[40 C.F.R. 63.6603(a) and Table 2d (item 1), Subpart ZZZZ]

89.2. During periods of startup, the Permittee shall comply with Condition 88.3.

[40 C.F.R. 63.6603(a) and Table 2d (item 1), Subpart ZZZZ]

89.3. Demonstrate continuous compliance with the requirements in Condition 89.1 by complying with Condition 88.2.

[40 C.F.R. 63.6640(a) & Table 6 (item 9), Subpart ZZZZ]

89.4. The Permittee may use an oil analysis program in order to extend the specified oil change requirement in Condition 89.1.a as described below:

a. The oil analysis must be performed at the same frequency specified for changing the oil in 89.1.a.

b. The analysis program must, at a minimum, analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

(i) Total Base Number is less than 30 percent of the Total Base Number of the oil when new;

(ii) viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or

(iii) percent water content (by volume) is greater than 0.5.

c. If all of the condemning limits in Conditions 89.4.b(i) through 89.4.b(iii) are not exceeded, the Permittee is not required to change the oil.

d. If any of the limits in Conditions 89.4.b(i) through 89.4.b(iii) is exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis:

(i) If the engine is not in operation when the results of the analysis are received, the Permittee must change the oil within 2 business days or before commencing operation, whichever is later.

e. The analysis program must be part of the maintenance plan for the engine.

[40 C.F.R. 63.6603(a), 63.6625(i), and Footnote 1 to Table 2d, Subpart ZZZZ]

90. NESHAP Subpart ZZZZ Recordkeeping Requirements. The Permittee shall keep records, as follows:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a) (3)(ii)]

90.1. If electing to operate and maintain EU ID 26 according to a maintenance plan developed by the Permittee as allowed under Condition 88.2.b, keep records of the maintenance conducted on EU ID 26 in order to demonstrate that the stationary RICE and after-treatment control device (if any) are operated and maintained according to the maintenance plan.

[40 C.F.R. 63.6655(e)(3), Subpart ZZZZ]

90.2. If electing to utilize the oil analysis program described in Condition 89.4, keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine.

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

90.3. Keep records in a form suitable and readily available for expeditious review. Keep each record in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. 63.10(b)(1), except that all records may be retained off site.

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

91. NESHAP Subpart ZZZZ Reporting Requirements. The Permittee shall report, as follows:

[18 AAC 50.040(c)(23) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(c)(3)(iii) & (c)(6)]

91.1. Include in the operating report required by Condition 142 a report of all deviations as defined in 40 C.F.R. 63.6675 and of each instance in which an applicable requirement in 40 C.F.R. 63, Subpart A (Table 8 to Subpart ZZZZ) was not met.

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

91.2. Notify the Department in accordance with Condition 141 if any of the requirements in Conditions 86 through 91 were not met.

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

NESHAP Subpart JJJJJJ[39] – Industrial, Commercial, and Institutional Boilers, EU IDs 3, 4, 17 – 22, and 113

92. NESHAP Subpart JJJJJJ Applicability. For existing and new[40] institutional boilers, EU IDs 3, 4, 17 – 22, and 113 listed in Table A, located at an area source of HAP emissions, the Permittee shall comply with the applicable requirements as summarized in Table B and as specified in Conditions 94 through 104.

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.11193, 63.11194(a) - (c), 63.11200(a) – (e), 63.11237, Subpart JJJJJJ]
[40 C.F.R. 63.11201 (a) – (c), and Tables 1 – 3, Subpart JJJJJJ]

Table B – NESHAP Subpart JJJJJJ Applicable Requirements Summary

EU ID Nos.	Subcategory	Emission Limits	Fuel Analyses	Operating Limits	One-time Energy Assessment	Performance Test/ Fuel Analysis	2-yr Tune-Up	5-yr Tune Up
3 & 4	Existing, oil[1], ≥10MMBtu/hr	No	No	No	Yes[5]	No	Yes	No
17 & 18	Existing, oil, ≤ 5MMBtu/hr	No	No	No	No	No	No	Yes

[39] The provisions of NESHAP Subpart JJJJJJ listed in Conditions 85.2 and 92 through 104 are current as amended through September 14, 2016. Should EPA promulgate revisions to this subpart, the Permittee shall be subject to the revised final provisions as promulgated and not the superseded provisions summarized in these conditions.

[40] An affected source is an *existing source* if construction or reconstruction of the affected source commenced on or before June 4, 2010. An affected source is a *new source* if construction of the affected source is commenced after June 4, 2010. [40 C.F.R. 63.11194(b) & (c), Subpart JJJJJJ].

EU ID Nos.	Subcategory	Emission Limits	Fuel Analyses	Operating Limits	One-time Energy Assessment	Performance Test/ Fuel Analysis	2-yr Tune-Up	5-yr Tune Up
19 – 21	Existing, oil, Seasonal[2], > 5 MMBtu/hr <10MMBtu/hr	No	No	No	No	No	No	Yes
19 – 22	Existing, oil, >5 MMBtu/hr <10MMBtu/hr	No	No	No	No	No	Yes	No
113[3]	New, coal[4], ≥30 MMBtu/hr	Yes PM, Hg, CO	Yes	Yes	No	Yes	No	Yes[6]
113[3]	New, biomass[4], ≥30MMBtu/hr	Yes PM	No	Yes	No	Yes	No	Yes[6]

Notes:

1. EU IDs 3 and 4 are dual fuel-fired boilers, capable of burning gaseous fuel or liquid fuel. For as long as EU IDs 3 and 4 meet the definition of gas-fired boiler, as defined in 40 C.F.R. 63.11237, the units are not subject to the requirements of NESHAP Subpart JJJJJJ. *Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. Based on historical operations data of EU IDs 3 and 4, the EUs are primarily operating on liquid (diesel) fuel.
2. EU IDs 19 – 21 may qualify as seasonal boilers if the units meet the definition of a "seasonal boiler" as defined under 40 C.F.R. 63.11237, as follows: *Seasonal boiler* means a boiler that undergoes a shutdown for a period of at least 7 consecutive months (or 210 consecutive days) each 12-month period due to seasonal conditions, except for periodic testing. Periodic testing shall not exceed a combined total of 15 days during the 7-month shutdown. This definition only applies to boilers that would otherwise be included in the biomass subcategory or the oil subcategory. [40 C.F.R. 63.11237, Subpart JJJJJJ]
3. EU ID 113 is subject to Condition 39, to determine whether the unit is operating as a biomass boiler. [40 C.F.R. 63.11237, Subpart JJJJJJ]
4. EU ID 113 is a new boiler capable of burning biomass and coal. *Biomass subcategory* includes any boiler that burns any biomass and is not in the coal subcategory. *Coal subcategory* includes any boiler that burns any solid fossil fuel and no more than 15 percent biomass on an annual heat input basis.
5. The one-time energy assessments required under NESHAP Subpart JJJJJJ for EU IDs 3 and 4 have been completed on July 16, 2014 and October 3, 2014, respectively, and corresponding Notice of Compliance Status submitted.
6. EU ID 113 is equipped with an oxygen trim system. In accordance with 40 C.F.R. 63.11223(c) and Table 2 (item 15), new coal-fired or biomass-fired boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up are subject to a 5-year tune-up.

93. NESHAP Subpart JJJJJJ Compliance Dates. The Permittee must achieve compliance with the applicable emission limits, operating limits, and work practice or management practice standards of a tune-up and energy assessment in Conditions 95, 96, and 97 no later than March 21, 2014 for the existing affected boilers, EU IDs 3 and 4 (when operating as

oil-fired boilers) and EU IDs 17 through 22; and upon startup of the new affected boiler, EU ID 113.[41]

[40 C.F.R. 63.11196(a)(1) & (c), Subpart JJJJJJ]

94. NESHAP Subpart JJJJJJ Good Air Pollution Control Practices. At all times the Permittee shall operate and maintain EU IDs 3 and 4 (when operating as oil-fired boilers), 17 through 22, and 113, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.11205(a), Subpart JJJJJJ]

95. NESHAP Subpart JJJJJJ Work Practice Standards, Emission Reduction Measures, and Management Practices, EU IDs 3, 4, 17 – 22, and 113. For each of EU IDs 3, 4, 17 – 22, and 113, the Permittee shall comply with the following work practice standards, emission reduction measures, and management practices at all times, as follows:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) and (a)(3)(i) – (iii)]
[40 C.F.R. 63.11201(b) & (d), 63.11223, and Table 2 (item 1), Subpart JJJJJJ]

95.1. For EU ID 113, the Permittee must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available.

a. If manufacturer's recommended procedures are not available, follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.

b. Submit a signed statement in the Notification of Compliance Status report, in accordance with Conditions 104.1.d, that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

[40 C.F.R. 63.11214(d), 63.11223(g) and Table 2 (item 1), Subpart JJJJJJ]

95.2. For EU IDs 3 and 4 (when operating as oil-fired boilers) and EU IDs 19 – 22, conduct a performance tune-up of each boiler every two years in accordance with Condition 95.4. Each two-year tune-up must be conducted no more than 25 months after the previous tune-up.

[41] Initial compliance demonstration and Notification of Compliance Status requirements for EU IDs 3, 4, and 17 – 22 have been completed. The initial startup date of EU ID 113 (firing on coal) was December 19, 2019; the EU became fully operational on February 25, 2020.

a. The Permittee may delay the burner inspection specified in Condition 95.4.b and inspection of the system controlling the air-to-fuel ratio specified in Condition 95.4.d until the next scheduled unit shutdown, but not to exceed 36 months from the previous inspection.

[40 C.F.R. 63.11223(a), (b)(1) & (3), and Table 2 (item 4), Subpart JJJJJJ]

95.3. For EU IDs 17, 18, EU IDs 19 – 21 (when classified as seasonal boilers), and EU ID 113 (equipped with an oxygen trim system that maintains an optimum air-to-fuel ratio), conduct a performance tune-up of each boiler every 5 years in accordance with Condition 95.4. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

a. The Permittee may delay the burner inspection specified in Condition 95.4.b and inspection of the system controlling the air-to-fuel ratio specified in Condition 95.4.d until the next scheduled unit shutdown, but must inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.

[40 C.F.R. 63.11223(a), (c), (d), & (e) and Table 2 (items 8, 12, & 15), Subpart JJJJJJ]

95.4. Perform tune-ups, as follows:

a. Conduct tune-ups in EU IDs 3 and 4 (when operating as oil-fired boilers), 17 – 22 and 113.

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

c. 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.

d. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

e. 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.

f. 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.

g. 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 C.F.R. 63.11223(a) and (b)(1) – (5) & (7), Subpart JJJJJJ]

95.5. For EU IDs 3 and 4 (when operating as oil-fired boilers), 17 – 22, and 113 that are subject to the work practice standard or the management practices of a tune-up described in Conditions 95.1 through 95.4, keep records as required in Condition 104.3.

[40 C.F.R. 63.11223(a) and 63.11225(c), Subpart JJJJJJ]

96. NESHAP Subpart JJJJJJ Emission Limits, EU ID 113. For EU ID 113, the Permittee shall comply with the following emission limits. These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown, as defined in 40 C.F.R. 63.11237, during which time the Permittee must comply only with Condition 95.1.

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1)]
[40 C.F.R. 63.11201(a) & (d), and Table 1, Subpart JJJJJJ]

96.1. For EU ID 113 (when operating as a new coal-fired boiler), the Permittee must comply with each of the following emission limits:

a. for PM (filterable), 3.0E-02 lb/MMBtu of heat input;

b. for Mercury (Hg), 2.2E-05 lb/MMBtu of heat input; and

c. for CO, 420 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average or 10-day rolling average).

[Table 1 (item 1), 40 C.F.R. 63 Subpart JJJJJJ]

96.2. For EU ID 113 (when operating as a new biomass-fired boiler), the Permittee must comply with the following emission limit:

a. for PM (filterable), 3.0E-02 lb/MMBtu of heat input.

[Table 1 (item 3), 40 C.F.R. 63 Subpart JJJJJJ]

97. NESHAP Subpart JJJJJJ Operating Limits and Compliance Demonstration, EU ID 113. For EU ID 113, the Permittee must meet the corresponding operating limits established to demonstrate compliance with the emission limits in Condition 96, using the methods described in Conditions 97.1 through 97.7, as applicable. These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown, as defined in 40 C.F.R. 63.11237, during which time the Permittee must comply only with Condition 95.1.

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(1) & (a)(3)(i)]
[40 C.F.R. 63.11201(c) & (d), 63.11205(b), 63.11211(a) - (c), and Tables 3 & 6, Subpart JJJJJJ]

97.1. For EU ID 113 using a fabric filter to control PM emissions, the Permittee shall maintain opacity to less than or equal to 10 percent opacity (daily block average).

[40 C.F.R. 63.11211(b)(4) and Table 3 (item 1.a), Subpart JJJJJJ]

97.2. For EU ID 113, the Permittee may demonstrate compliance with the Hg emission limit in Condition 96.1.b using fuel analysis if the emission rate calculated according to Condition 98.3 is less than the applicable emission limit. Otherwise, you must demonstrate compliance using stack testing.

a. If using fuel analysis to determine Hg content, the Permittee shall

(i) maintain the fuel type or fuel mixture (annual average) such that the Hg emission rate calculated according to Condition 98.3 is less than the applicable emission limit for Hg in Condition 96.1.b; and

(ii) conduct fuel analyses according to Condition 101 and follow the procedures in Condition 98.3.

b. If using performance stack testing, comply with Condition 97.5

[40 C.F.R. 63.11205(b), 63.11211(c) and Table 3 (item 6), Subpart JJJJJJ]

97.3. For EU ID 113 using dry sorbent or activated carbon injection control to control Hg emissions, the Permittee shall comply with the following:

a. Establish the minimum sorbent injection rate or minimum activated carbon injection rate, as defined in 40 C.F.R. 63.11237, as operating limit in accordance with the following:

(i) Use the data from the sorbent or activated carbon injection rate monitors and the three-run Hg performance stack tests described in Condition 100; and

(ii) Collect sorbent or activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests;

b. Maintain the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent injection rate or minimum activated carbon injection rate; and

c. When operating at lower loads, multiply the sorbent or activated carbon injection rate by the load fraction (e.g., actual heat input divided by the heat input during the performance stack test; for 50 percent load, multiply the injection rate operating limit by 0.5) to obtain the injection rate operating limit at that load.

[40 C.F.R. 63.11211(b)(3), Table 3 (item 4), and Table 6 (item 2), Subpart JJJJJJ]

97.4. For EU ID 113 using an oxygen analyzer system to demonstrate compliance with the CO emissions limit in Condition 96.1.c, the Permittee shall comply with the following:

a. Establish a unit-specific limit for minimum oxygen level in accordance with the following:

(i) Use the data from the oxygen analyzer system specified in Condition 102.1;

(ii) Collect oxygen data every 15 minutes during the entire period of the performance stack tests described in Condition 100; and

(iii) Determine the average hourly oxygen concentration for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

b. Maintain the 30-day rolling average oxygen level at or above the minimum oxygen level as defined in 40 C.F.R. 63.11237. This requirement does not apply if an oxygen trim system is installed on EU ID 113 since this unit will set the trim system to the level specified in Condition 102.1.b.

[40 C.F.R. 63.11211(a), Table 3 (item 8), and Table 6 (item 3), 40 C.F.R. 63 Subpart JJJJJJ]

97.5. For EU ID 113 using performance stack testing to determine compliance with the emissions limits in Condition 96 for any of the criteria pollutants, the Permittee shall comply with the following:

a. Maintain the operating load such that the EU does not exceed 110 percent of the average operating load recorded during the most recent performance stack test; and

b. Conduct performance stack testing according to Condition 100.

[40 C.F.R. 63.11211(a) and Table 3 (item 7), Subpart JJJJJJ]

97.6. For EU ID 113 using performance stack testing to determine operating limits based on the boiler's operating load, the Permittee shall comply with the following:

a. Establish a unit-specific limit for maximum operating load according to Condition 100.5, and as follows:

(i) Use data from the operating load monitors (fuel feed monitors or steam generation monitors);

(ii) Collect operating load data (fuel feed rate or steam generation data) every 15 minutes during the entire period of the performance test;

(iii) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test; and

(iv) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

[40 C.F.R. 63.11211(a) and Table 6 (item 4), Subpart JJJJJJ]

97.7. For EU ID 113, if the Permittee demonstrates compliance with any of the emission limits in Condition 96 through performance stack testing and subsequent compliance with operating limits (including the use of Continuous Parameter Monitoring System (CPMS)), with a CEMS, or with a COMS, the Permittee must develop a site-specific monitoring plan according to the requirements in 40 C.F.R. 63.11205(c)(1) through (3) for the use of any CEMS, COMS, or CPMS. This requirement also applies for a petition to the EPA Administrator for alternative monitoring parameters under 40 C.F.R. 63.8(f).

[40 C.F.R. 63.11205(c)(1) – (3), Subpart JJJJJJ]

98. NESHAP Subpart JJJJJJ Initial Compliance Demonstration.[42] For EU ID 113, the Permittee shall demonstrate initial compliance with Conditions 95, 96 and 97, as follows:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) & (iii)]
[40 C.F.R. 63.11205(b) and 63.11210 – 63.11214, Subpart JJJJJJ]

98.1. For work practice standards or management practices for EU ID 113 under Condition 95, demonstrate initial compliance by complying with Condition 95.1 and as follows:

[40 C.F.R. 63.11214(d), Subpart JJJJJJ]

a. When operating as a biomass boiler, an initial performance tune-up is not required to demonstrate compliance, but the Permittee shall complete the applicable biennial tune-up as specified in Conditions 95.2 and 95.4 no later than 25 months after initial startup.

[40 C.F.R. 63.11210(g) and 63.11214(b), Subpart JJJJJJ]

98.2. For each applicable emissions limit specified in Conditions 96.1 and 96.2 for EU ID 113, demonstrate initial compliance within 180 days after startup, or within 180 days of the effective date of switching fuels, according to 40 C.F.R. 63.7(a)(2)(ix), by any or all of the following:

a. conducting performance (stack) tests according to Condition 100 for any of the criteria pollutants;

b. for Hg, conducting fuel analyses, according to Condition 101;

c. establishing operating limits according to Condition 97 and 99, as applicable; and

d. conducting CMS performance evaluations according to Condition 102.

[40 C.F.R. 63.11205(b), 63.11210(a), (b), & (d), and 63.11211(a), Subpart JJJJJJ]

98.3. For EU ID 113, if demonstrating compliance with the Hg emission limit in Condition 96.1.b through fuel analysis, conduct fuel analyses according to Condition 101 and follow the procedures in Conditions 98.3.a through 98.3.c.

a. If more than one fuel type is burned, determine the fuel type, or mixture that could be burned that would result in the maximum emission rates of Hg.

b. Determine the 90th percentile confidence level fuel Hg concentration of the composite samples analyzed for each fuel type using Equation 10 below.

Equation 10 $$P_{90} = mean + (SD * t)$$

[42] Initial compliance demonstration and Notification of Compliance Status requirements for EU IDs 3, 4, and 17 – 22 have been completed. The initial startup date of EU ID 113 (firing on coal) was December 19, 2019; the EU became fully operational on February 25, 2020.

Where:

P_{90}	=	*90^{th} percentile confidence level Hg concentration, in lb/MMBtu*
mean	=	*Arithmetic average of the fuel Hg concentration in the fuel samples analyzed according to Condition 101, in units of lb/MMBtu*
SD	=	*Standard deviation of the Hg concentration in the fuel samples analyzed according to Condition 101, in units of lb/MMBtu*
t	=	*t distribution critical value for 90^{th} percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table*

c. To demonstrate compliance with the applicable Hg emission limit, the emission rate that is calculated for EU ID 113 using Equation 10 must be less than the Hg emission limit in Condition 96.1.b.

[40 C.F.R. 63. 11210(a) and 63.11211(c)(1) – (3), Subpart JJJJJJ]

98.4. For each affected boilers that switches fuels or has a physical change done that results in the applicability of a different subcategory within Subpart JJJJJJ or the boiler becoming subject to subpart JJJJJJ, the Permittee must demonstrate compliance within 180 days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to Condition 104.7.

[40 C.F.R. 63.11210(i), Subpart JJJJJJ]

99. NESHAP Subpart JJJJJJ Continuous Compliance Demonstration Requirements, EU ID 113. For EU ID 113, the Permittee shall demonstrate continuous compliance with each emission limit and operating limit in Conditions 96 and 97, as follows:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) – (iii)]
[40 C.F.R. 63.11222 and Table 7, Subpart JJJJJJ]

99.1. For the opacity limit in Condition 97.1 where required to comply with the PM standards in Condition 96.1.a and 96.2.a:

a. Collect the opacity monitoring system data according to Conditions 102.5 and 103;

b. Reduce the opacity monitoring data to 6-minute averages; and

c. Maintain opacity to less than or equal to 10 percent (daily block average).

[Table 7 (item 1), 40 C.F.R. 63 Subpart JJJJJJ]

99.2. For the dry scrubber sorbent or activated carbon injection rate limits established under Condition 97.3:

a. Collect the sorbent or activated carbon injection rate monitoring system data for the dry scrubber according to Conditions 102 and 103;

b. Reduce the data to 30-day rolling averages; and

c. Maintain the 30-day rolling average sorbent or activated carbon injection rate at or above the minimum sorbent or activated carbon injection rate according to Condition 103.

[Table 7 (item 4), 40 C.F.R. 63 Subpart JJJJJJ]

99.3. For the fuel pollutant content analysis described in Condition 97.2 used to determine compliance with the Hg emission standard in Condition 96.1.b:

a. Only burn the fuel types and fuel mixtures used to demonstrate compliance with the Hg emission limit according to Condition 101 as applicable; and

b. Keep monthly records of fuel use according to Conditions 99.7 and 104.2.c(iv).

[Table 7 (item 6), 40 C.F.R. 63 Subpart JJJJJJ]

99.4. For the oxygen content limit established under Condition 97.4 if using an oxygen analyzer system to demonstrate compliance with the CO emission limit in Condition 96.1.c:

a. Continuously monitor the oxygen content of flue gas according to Condition 102. (This requirement does not apply to units that install an oxygen trim system since these units will set the trim system to the level specified in Condition 102.1.b);

b. Reduce the data to 30-day rolling averages; and

c. Maintain the 10-day rolling average oxygen content at or above the minimum oxygen level established during the most recent CO performance test.

[Table 7 (item 7), 40 C.F.R. 63 Subpart JJJJJJ]

99.5. For the boiler operating load limit established under Condition 97.6:

a. Collect operating load data (fuel feed rate or steam generation data) every 15 minutes;

b. Reduce the data to 30-day rolling averages; and

c. Maintain the 30-day rolling average at or below the operating limit established during the performance test according to Conditions 97.6 and 100.3.

[Table 7 (item 9), 40 C.F.R. 63 Subpart JJJJJJ]

99.6. Following the date on which the initial compliance demonstration is completed or is required to be completed under 40 C.F.R. 63.7 and Condition 98, whichever date comes first, the Permittee must continuously monitor the operating parameters.

a. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits established under Condition 97 constitutes a deviation from the established operating limits, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits.

b. Operating limits are confirmed or reestablished during performance tests.

[40 C.F.R. 63.11222(a)(1), Subpart JJJJJJ]

99.7. For EU ID 113 subject to the Hg or PM emission limit in Conditions 96.1 and 96.2, the Permittee must keep records of the type and amount of all fuels burned in each boiler during the reporting period, as required Condition 104.2.c(iv). The Permittee must demonstrate that all fuel types and mixtures of fuels burned would

a. result in lower emissions of Hg than the applicable emission limit, if demonstrating compliance with the Hg emission limit through fuel analysis; or

b. result in lower fuel input of Hg than the maximum values calculated during the last performance stack test, if demonstrating compliance through performance stack testing.

[40 C.F.R. 63.11222(a)(2), Subpart JJJJJJ]

99.8. For EU ID 113 subject to the Hg emission limit in Condition 96.1 and plans to burn a new type of fuel, the Permittee must determine the Hg concentration for any new fuel type in units of pounds per million Btu, using the procedures in Equation 10 of Condition 98 based on supplier data or the Permittee's own fuel analysis, and meet the requirements of Condition 99.8.a or 99.8.b.

a. The recalculated Hg emission rate must be less than the applicable emission limit.

b. If the Hg concentration is higher than the Hg fuel input during the previous performance test, then conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in Condition 100 to demonstrate that the Hg emissions do not exceed the emission limit.

[40 C.F.R. 63.11222(a)(3), Subpart JJJJJJ]

99.9. Report each instance in which one or more applicable emission limits or operating limits in Conditions 94 and 97 were not met. Report these deviations in accordance with the Condition 104.2.c(iii).

[40 C.F.R. 63.11222(b), Subpart JJJJJJ]

100. NESHAP Subpart JJJJJJ Stack Tests and Procedures for Performance Tests, EU ID 113. The Permittee shall comply with the following when conducting performance stack tests on EU ID 113:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 63.11212 and 63.11220, Subpart JJJJJJ]

100.1. Conduct all performance tests according to 40 C.F.R. 63.7(c), (d), (f), and (h). Develop a site-specific test plan according to the requirements in 40 C.F.R. 63.7(c).

100.2. Conduct each stack test according to the requirements in Table 4 to 40 C.F.R. 63 Subpart JJJJJJ.

100.3. Conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and demonstrate initial compliance and establish operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, the Permittee must comply with the operating limit for operating load conditions specified in Condition 97.5.

100.4. Conduct a minimum of three separate test runs for each performance stack test requirement under 40 C.F.R. 63 Subpart JJJJJJ as specified in 40 C.F.R. 63.7(e)(3) and in accordance with the provisions in Table 4 to 40 C.F.R. 63 Subpart JJJJJJ.

100.5. To determine compliance with the emission limits, use the F-Factor methodology and equations in Sections 12.2 and 12.3 of EPA Method 19 of 40 C.F.R. 60 Appendix A-7 to convert the measured PM concentrations and the measured Hg concentrations that result from the performance test to pounds per million Btu heat input emission rates.

[40 C.F.R. 63.11212(a)-(e) and Table 4, Subpart JJJJJJ]

100.6. For EU ID 113, conduct all applicable performance (stack) tests according to Conditions 100.1 through 100.5 on a triennial basis, except as specified in Conditions 100.7 and 101. Triennial performance tests must be completed no more than 37 months after the previous performance test.

[40 C.F.R. 63.11220(a), Subpart JJJJJJ]

100.7. When demonstrating initial compliance with the PM emission limit, if the performance test results for EU ID 113 show that the PM emissions are equal to or less than half of the PM emission limit in Conditions 96.1.a or 96.2.a, the Permittee does not need to conduct further performance tests for PM until September 14, 2021, but must continue to comply with all applicable operating limits and monitoring requirements and must comply with the provisions as specified in Conditions 100.7.a through 100.7.d.

a. Conduct a performance test for PM by September 14, 2021.

b. If the performance test results show that PM emissions are equal to or less than half of the PM emission limit, the Permittee may choose to conduct performance tests for PM every fifth year. Each such performance test must be conducted no more than 61 months after the pervious performance test.

c. If the Permittee intends to burn a new type of fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 C.F.R. 63.11237, the Permittee must conduct a performance test within 60 days of burning the new fuel type.

d. If the performance test results show that the PM emissions are greater than half of the PM emission limit, the Permittee must conduct subsequent performance tests on a triennial basis as specified in Condition 100.6.

[40 C.F.R. 63.11220(b), Subpart JJJJJJ]

101. NESHAP Subpart JJJJJJ Fuel Analyses, EU ID 113 (when burning coal). Except as provided for in Condition 101.4, if using fuel analyses to demonstrate compliance with the Hg emission limit in Condition 96.1.b, the Permittee shall conduct fuel analysis for each type of fuel burned in EU ID 113, as follows:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i)]
[40 C.F.R. 63.11213 and 63.11220, Subpart JJJJJJ]

101.1. Conduct fuel analyses according to the procedures in Table 5 of 40 C.F.R. 63 Subpart JJJJJJ, as applicable, and as follows:

a. At a minimum, the Permittee must obtain three composite fuel samples for each fuel type according to the procedures in Table 5 to 40 C.F.R. 63 Subpart JJJJJJ. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period.

b. Determine the concentration of Hg in the fuel in units of lb/MMBtu of each composite sample for each fuel type to the procedures in Table 5 of 40 C.F.R. 63 Subpart JJJJJJ.

[40 C.F.R. 63.11213(a)-(c) and Table 5, Subpart JJJJJJ]

101.2. When demonstrating compliance with the Hg emission limit in Condition 96.1.b, if the Hg constituents in the fuel or fuel mixture are measured to be

a. equal to or less than half of the Hg emission limit, the Permittee may choose to conduct fuel analysis sampling for Hg every 12 months, but must continue to comply with all applicable operating limits and monitoring requirements[43]; or

b. greater than half of the Hg emission limit, the Permittee must conduct quarterly sampling.

[40 C.F.R. 63.11220(d)(2) & (3), Subpart JJJJJJ]

101.3. If the Permittee plans to burn a new type of fuel or fuel mixture, the Permittee must conduct a fuel analysis before burning the new type of fuel or mixture in the boilers.

a. Recalculate the Hg emission rate using Equation 10 of Condition 98.

b. The recalculated Hg emission rate must be less than the applicable emission limit.

[40 C.F.R. 63.11220(d), Subpart JJJJJJ]

101.4. The Permittee is not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes.

[40 C.F.R. 63.11213(a), Subpart JJJJJJ]

[43] Per the Hg analysis report dated March 10, 2020, the mercury constituents measured in UCM coal used in EU ID 113 for the initial compliance demonstration (March 2014) and subsequent demonstrations (i.e., 2017 - 2020) were less than half the Hg emission limit in Condition 96.1.b. UAF, as a customer using UCM coal as a sole source of fuel, can use this demonstration to comply with the fuel analysis requirement for 2020. Therefore, UAF may conduct fuel analysis sampling for Hg every 12 months.

102. NESHAP Subpart JJJJJJ Installation, Operation, and Maintenance Requirements for Continuous Monitoring Systems (CMS) and Control Devices, EU ID 113. The Permittee shall comply with the following requirements for installation, operation, and maintenance of continuous monitoring systems and control devices for EU ID 113:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) – (iii)]

102.1. For EU ID 113 subject to CO emission limit in Condition 96.1.c, install, calibrate, operate, and maintain an oxygen analyzer system as defined in 40 C.F.R. 63.11237, according to the manufacturer's recommendations and Conditions 102.1.b and 102.4, as applicable, by the compliance date specified in Condition 93.

a. Oxygen monitors and oxygen trim systems must be installed to monitor oxygen in the boiler flue gas, boiler firebox, or other appropriate intermediate location.

[40 C.F.R. 63.11224(a), Subpart JJJJJJ]

b. Operate the oxygen analyzer system at or above the minimum oxygen level that is established as the operating limit according to Condition 97.4 when firing the fuel or fuel mixture utilized during the most recent CO performance stack test. Operation of oxygen trim systems to meet these requirements shall not be done in a manner which compromises furnace safety.

[40 C.F.R. 63.11224(a)(7), Subpart JJJJJJ]

102.2. If a control device is used to comply with the emission limits specified in Condition 96, maintain each operating limit in Condition 97 that apply to EU ID 113 as specified in Conditions 99.1 through 99.5. If a control device not covered in Condition 97 is used, or the Permittee wishes to establish and monitor an alternative operating limit and alternative monitoring parameters, the Permittee must apply to the EPA Administrator for approval of alternative monitoring under 40 C.F.R. 63.8(f).

[40 C.F.R. 63.11224(b), Subpart JJJJJJ]

102.3. If compliance with any applicable emission limit is demonstrated through stack testing and subsequent compliance with operating limit, develop a site-specific monitoring plan according to the requirements in Conditions 102.3.a through 102.3.d. This requirement also applies if the Permittee petitions the EPA Administrator for alternative monitoring parameters under 40 C.F.R. 63.8(f).

a. For each CMS required under Condition 102, develop and submit to the EPA Administrator for approval upon request, a site-specific monitoring plan that addresses Conditions 102.3.a(i) through 102.3.a(iii). Submit this site-specific monitoring plan (if requested) at least 60 days before the initial performance evaluation of the CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

b. The site-specific monitoring plan must also address Conditions 102.3.b(i) through 102.3.b(iii).

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of 40 C.F.R. 63.8(c)(1), (3), and (4)(ii).

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of 40 C.F.R. 63.8(d).

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 63.10(c), (e)(1), and (e)(2)(i).

c. Conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan.

d. Operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

[40 C.F.R. 63.11224(c), Subpart JJJJJJ]

102.4. Install, operate, and maintain each CPMS according to the procedures in Conditions 102.4.a through 102.4.d.

a. The CPMS must complete a minimum of one cycle of operation every 15 minutes. The Permittee must have data values from minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data.

b. Calculate hourly arithmetic averages from each hour of CPMS data in units of the operating limit and determine the 30-day rolling average of all recorded readings, except as provided in Condition 103.2. Calculate a 30-day rolling average from all of the hourly averages collected for the 30-day operating period using Equation 11.

$$\textbf{Equation 11: } \mathbf{30-day\ average} = \frac{\sum_{i=1}^{n} \boldsymbol{Hpvi}}{\boldsymbol{n}}$$

Where:

Hpvi = *the hourly parameter value for hour, i*

n = *the number of valid hourly parameter values collected over 30 boiler operating days*

c. For purposes of collecting data, operate the CPMS as specified in Condition 103.1. For purposes of calculating data average, use all the data collected during all periods in assessing compliance, except that certain data as specified in Condition 103.2 must be excluded. Periods when CPMS data are unavailable may constitute monitoring deviations as specified in Condition 103.3.

d. Record the results of each inspection, calibration, and validation check.

[40 C.F.R. 63.11224(d), Subpart JJJJJJ]

102.5. Install, operate, certify and maintain each COMS according to the procedures in Conditions 102.5.a through 102.5.h by the compliance date specified in Condition 93.

a. Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 C.F.R. 60 Appendix B.

b. Conduct a performance evaluation of each COMS according to the requirements in 40 C.F.R. 63.8 and according to Performance Specification 1 of 40 C.F.R. 60 Appendix B.

c. As specified in 40 C.F.R. 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

d. The COMS data must be reduced as specified in 40 C.F.R. 63.8(g)(2).

e. Include in the site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 C.F.R. 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

f. Operate and maintain each COMS according to the requirements of the monitoring plan and the requirements of 40 C.F.R. 63.8(c). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

g. Calculate and record 6-minute averages from the opacity monitoring data and determine and record the daily block average of recorded readings, except as provided in Condition 103.2.

h. For purposes of collecting opacity data, operate the COMS as specified in Condition 103.1. For purposes of calculating data averages, use all the data collected during all periods in assessing compliance, except that certain data as specified in Condition 103.2 must be excluded. Periods when COMS data are unavailable may constitute monitoring deviations as specified in Condition 103.3.

[40 C.F.R. 63.11224(e), Subpart JJJJJJ]

103. NESHAP Subpart JJJJJJ CMS Data Requirements, EU ID 113. The Permittee shall monitor and collect data for EU ID 113 according to the site-specific monitoring plan required by Condition 97.7 and as follows:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(i) – (iii)]

103.1. Operate the monitoring system and collect data at all required intervals at all times EU ID 113 is operating and compliance is required, except for period of monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan.

a. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data.

b. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions.

c. Complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

103.2. The Permittee may not use data collected during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or quality control activities in calculations used to report emissions or operating levels. Any such periods must be reported according to the requirements in Condition 104. The Permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

103.3. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan), failure to collect required data is a deviation of the monitoring requirements.

[40 C.F.R. 63.11221(a)-(d), Subpart JJJJJJ]

104. NESHAP Subpart JJJJJJ Notification, Reporting, and Recordkeeping Requirements for EU IDs 3, and 4 (when operating as oil-fired boilers), 17 – 22, and 113. The Permittee shall comply with the following:

[18 AAC 50.040(c)(39) & (j)(4) and 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii) & (iii)]

104.1. Submit the notifications specified in Conditions 104.1.a through 104.1.e to the EPA Administrator.

a. Submit all of the notifications in the 40 C.F.R. 63.7(b) *(Notification of performance test)*, 63.8(e) and (f) *(Notification of continuous monitoring systems performance evaluation and Use of an alternative monitoring method)*, and 63.9(b) through (e), (g) and (h) (*Initial notifications, Request for extension of compliance, Notification that source is subject to special compliance requirements, Notification of performance test, Additional notification requirements for sources with continuous monitoring systems, and Notification of compliance status)*, as applicable, by the dates specified in those sections except as specified in Conditions 104.1.b and 104.1.d.

b. Submit an Initial Notification within 120 days after the source becomes subject to 40 C.F.R. 63 Subpart JJJJJJ.

c. If a performance stack test is required, submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.

d. Submit the Notification of Compliance Status, as follows:

(i) For EU IDs 3, 4, and 17 through 22, no later than 120 days after the applicable compliance date specified in Condition 93.

(ii) For EU ID 113 that is required to conduct a performance stack test, within 60 days of completing the performance stack test.

(iii) Submit the Notification of Compliance Status in accordance with Conditions 104.1.d(iv)(A) through 104.1.d(iv)(E).

(iv) The Notification of Compliance Status must include the information and certification(s) of compliance in Conditions 104.1.d(iv)(A) through 104.1.d(iv)(D), as applicable, and signed by a responsible official.

(A) Submit the information required in 40 C.F.R. 63.9(h)(2), except the information listed in 40 C.F.R. 63.9(h)(2)(i)(B), (D), (E), and (F). If any performance tests or CMS performance evaluations are conducted, submit that data as specified in Conditions 104.5 through 104.6, as applicable. If any opacity or visible emission observations, or other monitoring procedures or methods are conducted, submit that data to the EPA Administrator at the appropriate address listed in 40 C.F.R. 63.13.

(B) For EU IDs 3 and 4 (when operating as oil-fired boilers), 17 – 22 and 113 (when operating as a biomass boiler): *"This facility complies with the requirements in 40 C.F.R. 63.11214 to conduct an initial tune-up of the boiler."*

(C) For EU IDs 3 and 4 (when operating as oil-fired boilers): *"This facility has had an energy assessment performed according to 40 C.F.R. 63.11214(c)."*

(D) For EU ID 113 that has a bag leak detection system installed: *"This facility complies with the requirements in 40 C.F.R. 63.11224(f)."*

(E) 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 40 C.F.R. 63 Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the EPA Administrator at the appropriate address listed in 40 C.F.R. 63.13.

e. If data from a previously conducted emission test is used to serve as documentation of conformance with the emission standards and operating limits of 40 C.F.R. 63 Subpart JJJJJJ, include in the Notification of Compliance Status the date of the test and a summary of the results, not a complete test report, relative to 40 C.F.R. 63 Subpart JJJJJJ.

[40 C.F.R. 63.11225(a)(1) – (5), Subpart JJJJJJ]

104.2. Prepare by March 1 of each year, and submit to the EPA upon request, a compliance certification report for the previous calendar year, as follows:

a. For **EU ID 113**, an **annual** compliance certification report containing the information specified in Conditions 104.2.c(i) through 104.2.c(iv).

b. For **EU IDs 3, 4, and 17 – 22** that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to Condition 95.4 and not subject to emission limits or operating limits, the Permittee may prepare only a **biennial or 5-year** compliance report as specified in Conditions 104.2.c(i) and 104.2.c(ii).

c. Include the following information in the compliance certification report:

(i) Company name and address.

(ii) 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 40 C.F.R. 63 Subpart JJJJJJ. The notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(A) *"This facility complies with the requirements in 40 C.F.R. 63.11223 to conduct a biennial or 5-year tune-up, as applicable, for each boiler."*

(B) *"This facility complies with the requirements in 40 C.F.R. 63.11214(d) and 40 C.F.R. 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."*

(iii) If any of EU IDs 3, 4, 17 through 22, and 113 experience 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.

(iv) The total fuel use by EU ID 113, for each calendar month within the reporting period, including, but not limited to:

(A) a description of the fuel,

(B) whether the fuel has received non-waste determination by the Permittee or EPA through a petition process to be a non-waste under 40 C.F.R. 241.3(c),

(C) whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 C.F.R. 241.3, and

(D) the total fuel usage amount with units of measure.

d. If there was any instance described by Condition 104.2.c(iii), submit the report by March 15 following the date of the occurrence.

[40 C.F.R. 63.11225(b)(1) – (4), Subpart JJJJJJ]

104.3. For EU IDs 3 and 4 (when operating as oil-fired boilers), 17 – 22, and 113, maintain the records specified in Conditions 104.3.a through 104.3.g.

[40 C.F.R. 63.11225(c), Subpart JJJJJJ]

a. As required in 40 C.F.R. 63.10(b)(2)(xiv), keep a copy of each notification and report submitted to comply with 40 C.F.R. 63 Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status submitted.

[40 C.F.R. 63.11225(c)(1), Subpart JJJJJJ]

b. Keep records to document conformance with the work practices, emission reduction measures, and management practices required by Condition 95 as specified in Conditions 104.3.b(i) through 104.3.b(iii).

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

(ii) For EU IDs 3 and 4, keep a copy of the energy assessment report.

(iii) For EU ID 113, keep records of monthly fuel use, including the types of fuel and amounts used.

(iv) For each of EU IDs 19 – 21 that meets the definition of seasonal boiler, keep records of days of operation per year.

[40 C.F.R. 63.11225(c)(2), (c)(2)(i), & (c)(2)(iii) - (v), Subpart JJJJJJ]

c. For EU IDs 3 and 4 (when operating as oil-fired boilers), 17 – 22, and 113 (when operating as a biomass boiler) required to perform tune ups, as indicated in Condition 95.4, maintain on-site and submit, if requested by the Administrator, a report containing the information in Conditions 104.3.c(i) and 104.3.c(ii).

(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 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 C.F.R. 63.11223(b)(6), Subpart JJJJJJ]

d. For EU ID 113 that demonstrates compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the Hg emission limits.

(i) Supporting documentation should include results of any fuel analyses.

(ii) The results from one fuel analysis may be used for multiple boilers provided they are all burning the same fuel type.

[40 C.F.R. 63.11225(c)(3), Subpart JJJJJJ]

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

[40 C.F.R. 63.11225(c)(4), Subpart JJJJJJ]

f. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Condition 94, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

[40 C.F.R. 63.11225(c)(5), Subpart JJJJJJ]

g. Keep the records of all inspection and monitoring data required by Conditions 99 and 103, and the information identified in Conditions 104.3.g(i) through 104.3.g(vi) for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event.

(ii) Person conducting the monitoring.

(iii) Technique or method used.

(iv) Operating conditions during the activity.

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.

(vi) Maintenance or corrective action taken (if applicable).

[40 C.F.R. 63.11225(c)(6), Subpart JJJJJJ]

104.4. Keep records in a form suitable and readily available for expeditious review for 5 years following the date of each recorded action, and keep each record onsite or 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. The Permittee may keep the records off site for the remaining 3 years

[40 C.F.R. 63.11225(d), Subpart JJJJJJ]

104.5. Within 60 days after the date of completing each performance test (defined in 40 C.F.R. 63.2) as required by 40 C.F.R. 63 Subpart JJJJJJ the Permittee must submit the results of the performance tests, including any associated fuel analyses, following the procedure in either Condition 104.5.a or 104.5.b.

a. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, the Permittee must submit the results of the performance to the EPA via CEDRI. Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternate electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the Permittee claims that some of the performance test information being submitted is confidential business information (CBI), the Permittee must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consisted with the XML schema listed on EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS?CORE CBI Office, Attention: Group Leader, Measurement Police Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The

same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this condition.

b. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the Permittee must submit the results of the performance test to the Administrator at the appropriate address listed in 40 C.F.R. 63.13.

[40 C.F.R. 63.11225(e)(1), Subpart JJJJJJ]

104.6. Within 60 days after the date of completing each CEMS performance evaluation (as defined in 40 C.F.R. 63.2), the Permittee must submit the results of the performance evaluation following the procedure specified in either Condition 104.6.a or 104.6.b.

a. For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the Permittee must submit the results of the performance evaluation to the EPA via the CEDRI. Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the SML schema listed on the EPA's ERT Web site. If the Permittee claims that some of the performance evaluation information being submitted is CBI, the Permittee must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic storage media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this condition.

b. For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the evaluation, the Permittee must submit the results of the performance evaluation to the Administrator at the appropriate address listed in 40 C.F.R. 63.13.

[40 C.F.R. 63.11225(e)(2), Subpart JJJJJJ]

104.7. If the Permittee has switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within 40 C.F.R. 63 Subpart JJJJJJ, in the boiler becoming subject to 40 C.F.R. 63 Subpart JJJJJJ, or in the boiler switching out of 40 C.F.R. 63 Subpart JJJJJJ due to a fuel change that results in the boiler meeting the definition of gas-fired boiler, as defined in 40 C.F.R. 63.11237, or if the Permittee has taken a permit limit that resulted in becoming subject to 40 C.F.R. 63 Subpart JJJJJJ or no longer being subject to 40 C.F.R. 63 Subpart JJJJJJ, the Permittee must:

a. Provide notice of the date upon which fuels the Permittee switched, made the physical change, or took a permit limit within 30 days of the change.

b. The notification must identify:

(i) the name of the owner or operator of the affected source;

(ii) the location of the source;

(iii) the boiler(s) that have switched fuels, were physically changed, or took a permit limit;

(iv) the date of the notice; and

(v) the date upon which the fuel switch, physical change, or permit limit occurred.

[40 C.F.R. 63.11225(g), Subpart JJJJJJ]

c. If EU IDs 19 – 21 no longer operate as seasonal boilers, as defined in 40 C.F.R. 63.11237, submit as a permit deviation the change of operational status in accordance with Condition 141.

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

40 C.F.R. 64, Compliance Assurance Monitoring (CAM), EU ID 8

105. CAM Plan for Control of NO_x. For EU ID 8, the Permittee shall comply with the following requirements for NO_x emissions:

[18 AAC 50.040(j)(4) & (k) and 50.326(j)(4)]
[40 C.F.R. 71.6(a)(1), (a)(3)(i) & (ii) and (c)(6)]

105.1. The Permittee shall ensure that EU ID 8 continuously operates under normal conditions, as indicated by the following:

a. a pressure differential between 0.3 and 6 inches of water;

b. catalyst block temperature of 570°F to 896°F; and

c. an ammonia concentration of less than 5 ppmv.

105.2. The Permittee shall monitor and record as follows:

a. Continuously monitor pressure differential across the SCR catalyst and record one minute average pressure differential data electronically from continuous pressure differential readings;

b. Continuously monitor the temperature of the catalyst and record one minute average temperature data electronically from continuous temperature readings;

c. Monitor ammonia concentration of the outlet gas from the catalyst, using Draeger tubes in the 2 to 30 ppmv range, no less than once every 500 hours of operation of EU ID 8 and record the ammonia concentration value, date, and time of each monitoring; and

d. Monitor that the ammonia injection system is operating and ammonia is flowing into the catalyst while EU ID 8 has reached normal operating condition. Absence of ammonia flow at loads greater than 2 MW indicates an excursion. Keep records of the ammonia injection and engine load.

[40 C.F.R. 64.6(c)(1)]
[40 C.F.R. 71.6(a)(3)(i)(A), 7/2/07]

106. CAM Plan Excursions and Corrective Actions. For EU ID 8, the Permittee shall observe indicators for excursions and exceedances and perform corrective measures, as follows:

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

106.1. Indicator values that remain outside the value of normal operating conditions for more than one minute shall trigger an alarm and an investigation.

106.2. Pressure or temperature differentials below the lower value of normal operations that occur during startup of the emissions unit are not subject to further investigation or reporting provided that pressure and temperature return to normal operating range after startup. Startup shall be defined as in 18 AAC 50.990(103).

[40 C.F.R. 64.6(c)(2)]

106.3. Upon detecting an excursion or exceedance, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 C.F.R. 64.7(d)]

106.4. The response shall include minimizing the period of any startup, shutdown, or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operation action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard as applicable.

[40 C.F.R. 64.7(d)]
[40 C.F.R. 71.6(a)(3)(i)(A), 7/2/07]

107. CAM Plan Recordkeeping and Reporting. For EU ID 8, keep records of the time and cause of all excursions outside the range of normal operating conditions; and any corrective

action taken as a result of the event that caused the alarm. Include these records with the operating report under Condition 142. Startup shall be defined as in 18 AAC 50.990(103)

[18 AAC 50.040(j)(4) & (k) and 50.326(j)(4)]
[40 C.F.R. 64.9(a)(2)]
[40 C.F.R. 71.6(a)(3)(ii) & (iii) and (c)(6)]

108. Emission Limit Compliance and Exceedance Reporting. Observed normal operating conditions, as described in Condition 105.1, shall not excuse the Permittee from complying with the emission limits stated elsewhere in this permit. For EU ID 8, an exceedance of any emissions limit (such as the state grain loading and opacity standards, or owner requested limit) shall be reported as an excess emissions as required under Condition 141, whether or not values outside of CAM plan normal operating conditions are observed.

[18 AAC 50.040(j)(4) & (k) and 50.326(j)(4)]
[40 C.F.R. 64.9(a)(2)]
[40 C.F.R. 71.6(a)(3)(i) & (iii) and (c)(6)]

40 C.F.R. Part 61 National Emission Standards for Hazardous Air Pollutants (NESHAP)

Subpart A – General Provisions & Subpart M – Asbestos

109. The Permittee shall comply with the applicable requirements set forth in 40 C.F.R. 61.145, 61.150, and 61.152 of Subpart M, and the applicable sections set forth in 40 C.F.R. 61, Subpart A and Appendix A.

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

40 C.F.R. Part 82 Protection of Stratospheric Ozone

110. Subpart F – Recycling and Emissions Reduction. The Permittee shall comply with the applicable standards for recycling and emission reduction of refrigerants set forth in 40 C.F.R. 82, Subpart F.

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

111. Subpart G – Significant New Alternatives. The Permittee shall comply with the applicable prohibitions set out in 40 C.F.R. 82.174 (Protection of Stratospheric Ozone Subpart G – Significant New Alternatives Policy Program).

[18 AAC 50.040(d) & 50.326(j)]
[40 C.F.R. 82.174(b) through (d), Subpart G]

112. Subpart H – Halons Emissions Reduction. The Permittee shall comply with the applicable prohibitions set out in 40 C.F.R. 82.270 (Protection of Stratospheric Ozone Subpart H – Halon Emission Reduction).

[18 AAC 50.040(d) & 50.326(j)]
[40 C.F.R. 82.270(b) through (f), Subpart H]

NESHAP Applicability Determination Requirements

113. The Permittee shall determine rule applicability and designation of affected sources under National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories (40 C.F.R. 63) in accordance with the procedures described in 40 C.F.R. 63.1(b).

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

113.2. If a source becomes affected by an applicable subpart of 40 C.F.R. 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 C.F.R. 63.6(c).

113.3. 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 C.F.R. 63.9(b).

[18 AAC 50.040(c)(1), 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(ii)]
[40 C.F.R. 63.1(b), 63.5(b)(4), 63.6(c)(1), 63.9(b), & 63.10(b)(3), Subpart A]

Section 8. General Conditions

Standard Terms and Conditions

114. 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) & (c)]

115. 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)]

116. 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)]

117. 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) & AS 46.14.240]

118. 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:

118.1. potential to emit of or

a. 1,510 TPY;[44]

b. 1,509 TPY beginning June 9, 2021;

c. 1,469 TPY beginning October 1, 2023; or

118.2. 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;

[44] The assessable PTE shown in Condition 118.1.a is the PTE for the stationary source as of the date of issuance for this permit. The changes on the stationary source's PTEs in Conditions 118.1.b and 118.1.c are due to the limits in Conditions 43 and 44.

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

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

[18 AAC 50.040(j)(4), 50.035, 50.326(j)(1) & (3), 50.346(b)(1), 50.410, & 50.420]

119. Assessable Emission Estimates. The Permittee shall comply as follows:

119.1. 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 118.2. 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/.

119.2. 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.

119.3. If the stationary source has not commenced construction or operation on or before March 31st, the Permittee may submit to the Department's Anchorage office a waiver letter certified under 18 AAC 50.205 that states the stationary source's actual annual emissions for the previous calendar year are zero TPY and provides estimates for when construction or operation will commence.

119.4. If no estimate or waiver letter is submitted on or before March 31 of each year, emission fees for the next fiscal year will be based on the potential to emit in Condition 118.1.

[18 AAC 50.040(j)(4), 50.326(j)(1) & (3), 50.346(b)(1), 50.410, & 50.420]

120. Good Air Pollution Control Practice. The Permittee shall do the following for EU IDs 9A and 25:

120.1. Perform regular maintenance considering the manufacturer's or the operator's maintenance procedures;

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

120.3. Keep a copy of either the manufacturer's or the operator's maintenance procedures.

[18 AAC 50.326(j)(3) & 50.346(b)(5)]

121. 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)]

122. Reasonable Precautions to Prevent Fugitive Dust. A person who causes or permits bulk materials to be handled, transported, or stored, or who engages in an industrial activity or

construction project shall take reasonable precautions to prevent particulate matter from being emitted into the ambient air.

[18 AAC 50.045(d), 50. 326(j)(3), & 50.346(c)]

122.1. The Permittee shall keep records of

a. complaints received by the Permittee and complaints received by the Department and conveyed to the Permittee; and

b. any additional precautions that are taken

(i) to address complaints described in Condition 122.1.a or to address the results of Department inspections that found potential problems; and

(ii) to prevent future dust problems.

122.2. The Permittee shall report according to Condition 124.3.

[18 AAC 50.045(d), 50. 326(j)(3), and 50.346(c)]

123. Stack Injection. The Permittee shall not release materials other than process emissions, products of combustion, or materials introduced to control pollutant emissions from a stack at a source constructed or modified after November 1, 1982, except as authorized by a construction permit, Title V permit, or air quality control permit issued before October 1, 2004.

[18 AAC 50.055(g)]

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

[18 AAC 50.040(j)(4), 50.110, 50.326(j)(3) and 50.346(a)]
[40 C.F.R. 71.6(a)(3)]

124.1. **Monitoring.** The Permittee shall monitor as follows:

a. As soon as practicable after becoming aware of a complaint that is attributable to emissions from the stationary source, the Permittee shall investigate the complaint to identify emissions that the Permittee believes have caused or are causing a violation of Condition 124.

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 124; or

(ii) the Department notifies the Permittee that it has found a violation of Condition 124.

124.2. **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 124; and

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

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

a. With each stationary source operating report under Condition 142, 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 141.

125. Technology-Based Emission Standard. If an unavoidable emergency, malfunction, or non-routine repair (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[45] listed in Conditions 42,43, 44, 48, 49, 50, 61, 62, 63, 72, 79, 80, 96, 97, and 110, the Permittee shall

125.1. take all reasonable steps to minimize levels of emissions that exceed the standard; and

125.2. report in accordance with Condition 141.1.b; the report must include information on the steps taken to mitigate emissions and corrective measures taken or to be taken..

[45] As defined in 18 AAC 50.990(106), the term "*technology-based emission standard*" means a best available control technology (BACT) standard; a lowest achievable emission rate (LAER) standard; a maximum achievable control technology (MACT) standard established under 40 C.F.R. 63, Subpart B, adopted by reference in 18 AAC 50.040(c); a standard adopted by reference in 18 AAC 50.040(a) or (c); and any other similar standard for which the stringency of the standard is based on determinations of what is technologically feasible, considering relevant factors.

[18 AAC 50.235(a), 50.326(j)(4), & 50.040(j)(4)]
[40 C.F.R. 71.6(c)(6)]

Open Burning Requirements

126. Open Burning. If the Permittee conducts open burning at this stationary source, the Permittee shall comply with the requirements of 18 AAC 50.065. The Permittee shall comply as follows:

126.1. 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; and

126.2. Include this condition in the annual certification required under Condition 143.

[18 AAC 50.065, 50.040(j), & 50.326(j)]
[40 C.F.R. 71.6(a)(3)]

Section 9. General Source Testing and Monitoring Requirements

127. 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)]

128. Operating Conditions. Unless otherwise specified by an applicable requirement or test method, the Permittee shall conduct source testing

[18 AAC 50.220(b)]

128.1. at a point or points that characterize the actual discharge into the ambient air; and

128.2. 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.

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

129.1. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(a) must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60.

[18 AAC 50.220(c)(1)(A) & 50.040(a)]
[40 C.F.R. 60]

129.2. Source testing for compliance with requirements adopted by reference in 18 AAC 50.040(c) must be conducted in accordance with the source test methods and procedures specified in 40 C.F.R. 63.

[18 AAC 50.040(c) & 50.220(c)(1)(c)]
[40 C.F.R. 63]

129.3. 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 14 to record data.

[18 AAC 50.030 & 50.220(c)(1)(D)]

129.4. Source testing for emissions of total particulate matter, sulfur compounds, nitrogen compounds, carbon monoxide, lead, volatile organic compounds, fluorides, sulfuric acid mist, municipal waste combustor organics, metals, and acid gases must be conducted in accordance with the methods and procedures specified in 40 C.F.R. 60, Appendix A.

[18 AAC 50.040(a)(3) & 50.220(c)(1)(c)]
[40 C.F.R. 60, Appendix A]

129.5. Source testing for emissions of $PM_{2.5}$ and PM_{10} must be conducted in accordance with the procedures specified in 40 C.F.R. 51, Appendix M, Methods 201 or 201A and 202.

[18 AAC 50.035(b)(2) & 50.220(c)(1)(F)]
[40 C.F.R. 51, Appendix M]

129.6. Source testing for emissions of any pollutant may be determined using an alternative method approved by the Department in accordance with 40 C.F.R. 63 Appendix A, Method 301.

[18 AAC 50.040(c)(32) & 50.220(c)(2)]
[40 C.F.R. 63, Appendix A, Method 301]

130. 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)]

131. Test Exemption. The Permittee is not required to comply with Conditions 133, 134 and 135 when the exhaust is observed for visible emissions by Method 9 Plan (Condition 3.3) or Smoke/No Smoke Plan (Condition 3.4).

[18 AAC 50.345(a)]

132. 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)]

133. Test Plans. Except as provided in Condition 131, 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 127 and at least 30 days before the scheduled date of any test unless the Department agrees in writing to some other time period. Retesting may be done without resubmitting the plan.

[18 AAC 50.345(a) & (m)]

134. Test Notification. Except as provided in Condition 131, 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)]

135. Test Reports. Except as provided in Condition 131, 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 additionally certify the results in the manner set out in Condition 138. 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)]

136. Particulate Matter Calculations. In source testing for compliance with the particulate matter standards in Conditions 6, 17.2, and 21, the three-hour average is determined using the average of three one-hour test runs. The source test must account for those emissions caused by soot blowing, grate cleaning, or other routine maintenance activities by ensuring that at least one test run includes the emissions caused by the routine maintenance activity and is conducted under conditions that lead to representative emissions from that activity. The emissions must be quantified using the following equation:

$$\textbf{Equation 12} \quad E = E_M\left[(A+B)\times\frac{S}{R\times A}\right]+E_{NM}\left[\frac{(R-S)}{R}-\frac{BS}{R\times A}\right]$$

Where:

E	=	*the total particulate matter emissions of the emissions unit in grains per dry standard cubic foot (gr/dscf)*
E_M	=	*the particulate matter emissions in gr/dscf measured during the test that included the routine maintenance activity*
E_{NM}	=	*the arithmetic average of particulate matter emissions in gr/dscf measured by the test runs that did not include the routine maintenance activity*
A	=	*the period of routine maintenance activity occurring during the test run that included routine maintenance activity, expressed to the nearest hundredth of an hour*
B	=	*the total period of the test run, less A*
R	=	*the maximum period of emissions unit operation per 24 hours, expressed to the nearest hundredth of an hour*
S	=	*the maximum period of routine maintenance activity per 24 hours, expressed to the nearest hundredth of an hour*

[18 AAC 50.220(f)]

Section 10. General Recordkeeping and Reporting Requirements

Recordkeeping Requirements

137. 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) & (j)(4) and 50.326(j)]
[40 C.F.R 60.7(f), Subpart A, 40 C.F.R 71.6(a)(3)(ii) (A) & (B)]

137.1. Copies of all reports and certifications submitted pursuant to this section of the permit; and

137.2. 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

138. 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.

138.1. The Department may accept an electronic signature on an electronic application or other electronic record required by the Department if the person providing the electronic signature

a. uses a security procedure, as defined in AS 09.80.190, that the Department has approved; and

b. accepts or agrees to be bound by an electronic record executed or adopted with that signature.

[18 AAC 50.205, 50.326(j)(3), 50.345(a) & (j), & 50.346(b)(10)]

139. 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.

139.1. 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)]

140. Information Requests. The Permittee shall furnish to the Department, within a reasonable time, any information the Department requests in writing to determine whether cause exists to modify, revoke and reissue, or terminate the permit or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records required to be kept by the permit. The Department may require the Permittee to furnish copies of those records directly to the Federal Administrator.

[18 AAC 50.345(a) & (i), 50.200, & 50.326(a) & (j)]
[40 C.F.R. 71.5(a)(2) & 71.6(a)(3)]

141. Excess Emissions and Permit Deviation Reports. The Permittee shall report excess emissions and permit deviations as follows:

141.1. **Excess Emissions Reporting.** Except as provided in Condition 124, 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 141.1.d.

d. Report all other excess emissions not described in Conditions 141.1.a, 141.1.b, and 141.1.c within 30 days after the end of the month during which the excess emissions occurred or as part of the next routine operating report in Condition 142 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 on an excess emissions report.

[18 AAC 50.235(a)(2), 50.240(c), 50.326(j)(3), & 50.346(b)(2)]

141.2. **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 5.3.b, 9.4.b, and 20.3).

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 142 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)]

141.3. **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 16 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)]

142. Operating Reports. During the life of this permit[46], the Permittee shall submit to the Department an operating report in accordance with Conditions 138 and 139 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.

142.1. 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.

142.2. When excess emissions or permit deviations that occurred during the reporting period are not included with the operating report under Condition 142.1, 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

e. any corrective action or preventive measures taken and the date(s) of such actions; or

[46] *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.

142.3. when excess emissions or permit deviation reports have already been reported under Condition 141 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.

142.4. The operating report must include, for the period covered by the report, a listing of emissions monitored under Conditions 3.3.e, 3.4.c, 7.2, 10.1, 73.1.b(i), and 101.2.b 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.

142.5. **Transition from expired to renewed permit**. For the first period of this renewed operating permit, also provide the previous permit's operating report elements covering that partial period immediately preceding the effective date of this renewed permit.

[18 AAC 50.346(b)(6) & 50.326(j)]
[40 C.F.R. 71.6(a)(3)(iii)(A)]

143. Annual Compliance Certification. Each year by March 31, the Permittee shall compile and submit to the Department an annual compliance certification report according to Condition 139.

143.1. 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 12, 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.

143.2. **Transition from expired to renewed permit**. For the first period of this renewed operating permit, also provide the previous permit's annual compliance certification report elements covering that partial period immediately preceding the effective date of this renewed permit.

143.3. In addition, submit a copy of the report directly to the Clean Air Act Compliance Manager, US EPA Region 10, ATTN: Air Toxics and Enforcement Section, Mail Stop: 20-C04, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188.

[18 AAC 50.205, 50.345(a) & (j), & 50.326(j)]
[40 C.F.R. 71.6(c)(5)]

144. Emission Inventory Reporting. The Permittee shall submit to the Department reports of actual emissions for the previous calendar year, by emissions unit, of CO, NH_3, NO_x, PM_{10}, $PM_{2.5}$, SO_2, VOC and lead (Pb) and lead compounds, as follows:

144.1. **Every-year inventory.** Each year by April 30, if the stationary source's potential to emit for the previous calendar year equals or exceeds:

a. 250 TPY of NH_3, PM_{10}, $PM_{2.5}$ or VOC; or

b. 2,500 TPY of CO, NO_x, or SO_2.

144.2. **Triennial inventory.** Every third year by April 30, if the stationary source's potential to emit (except actual emissions for Pb) for the previous calendar year equals or exceeds:

a. For stationary sources located in Attainment and Unclassifiable Areas:

(i) 0.5 TPY of actual Pb, or

(ii) 1,000 TPY of CO; or

(iii) 100 TPY of SO_2, NH_3, PM_{10}, $PM_{2.5}$, NO_x or VOC.

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 144.2.b(iv) through 144.2.b(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.

144.3. For reporting under Condition 144.2, the Permittee shall report the annual emissions and the required data elements under Condition 144.4 every third year for the previous calendar year as scheduled by the EPA.[47].

144.4. For each emissions unit and the stationary source, include in the report the required data elements[48] 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.

144.5. 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 C.F.R. 51.15, 51.30(a)(1) & (b)(1), and Appendix A to 40 C.F.R. 51 Subpart A]

145. NSPS and NESHAP Reports. The Permittee shall comply with the following:

145.1. **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 142 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 online reports submitted during the reporting period.

145.2. **Waivers**: Upon request by the Department, provide a written copy of any EPA-granted alternative monitoring requirement, custom monitoring schedule or waiver of the federal emission standards, recordkeeping, monitoring, performance testing, or reporting requirements. The Permittee shall keep a copy of each U.S. EPA-issued monitoring waiver or custom monitoring schedule with the permit.

[18 AAC 50.040(j)(4) and 50.326(j)(4)]
[40 C.F.R. 60.13, 63.10(d) & (f) and 40 C.F.R. 71.6(c)(6)]

[47] The calendar years for which reports are required are based on the triennial reporting schedule in 40 C.F.R. 51.30(b)(1), which requires states to report emissions data to the EPA for inventory years 2011, 2014, 2017, 2020, and every 3rd year thereafter. Therefore, the Department requires Permittees to report emissions data for the same inventory years by April 30 of the following year (e.g., triennial emission inventory report for 2020 is due April 30, 2021, triennial emission inventory report for 2023 is due April 30, 2024, etc.).

[48] The required data elements to be reported to the EPA are outlined in 40 C.F.R. 51.15 and Tables 2a and 2b to Appendix A of 40 C.F.R. 51 Subpart A.

Section 11. Permit Changes and Renewal

146. Permit Applications and Submittals. The Permittee shall comply with the following requirements for submitting application information to the EPA:

146.1. 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;

146.2. The information shall be submitted to the Part 70 Operating Permit Program, US EPA Region 10, Air Permits and Toxics Branch, Mail Stop: 15-H13, 1200 Sixth Avenue, Suite 155, Seattle, WA 98101-3188;

146.3. 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

146.4. The Permittee shall maintain records as necessary to demonstrate compliance with this condition.

[18 AAC 50.040(j)(7), 50.326(a) & (j)(3), and 50.346(b)(7)]
[40 C.F.R. 71.10(d)(1)]

147. Emissions Trading. No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit.

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

148. Off Permit Changes. The Permittee may make changes that are not addressed or prohibited by this permit other than those subject to the requirements of 40 C.F.R. Part 72 through 78 or those that are modifications under any provision of Title I of the Act to be made without a permit revision, provided that the following requirements are met:

148.1. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition;

148.2. Provide contemporaneous written notice to EPA and the Department of each such change, except for changes that qualify as insignificant under 18 AAC 50.326(d) – (i). Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change;

148.3. The change shall not qualify for the shield under 40 C.F.R. 71.6(f);

148.4. The Permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(12)]

149. Operational Flexibility. The Permittee may make CAA Section 502(b)(10)[49] 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):

149.1. The Permittee shall provide EPA and the Department with a written notification no less than seven days in advance of the proposed change.

149.2. For each such change, the notification required by Condition 149.1 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.

149.3. The permit shield described in 40 C.F.R. 71.6(f) shall not apply to any change made pursuant to Condition 149.

[18 AAC 50.040(j)(4) & 50.326(j)]
[40 C.F.R. 71.6(a)(13)]

150. Permit Renewal. To renew this permit, the Permittee shall submit to the Department[50] an application under 18 AAC 50.326 no sooner than **[18 months before the expiration date of this permit]** and no later than **7**. The renewal application shall be complete before the permit expiration date listed on the cover page of this permit. Permit expiration terminates the stationary source's right to operate unless a timely and complete renewal application has been submitted consistent with 40 C.F.R. 71.7(b) and 71.5(a)(1)(iii).

[18 AAC 50.040(j)(3), 50.326(c) & (j)(2)]
[40 C.F.R. 71.5(a)(1)(iii) & 71.7(b) & (c)(1)(ii)]

[49] As defined in 40 C.F.R. 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.

[50] Submit permit applications to the Department's Anchorage office. The current address is: Air Permit Intake Clerk, ADEC, 555 Cordova Street, Anchorage, AK 99501.

Section 12. Compliance Requirements

General Compliance Requirements

151. Compliance with permit terms and conditions is considered to be compliance with those requirements that are

151.1. included and specifically identified in the permit; or

151.2. determined in writing in the permit to be inapplicable.

[18 AAC 50.326(j)(3) & 50.345(a) & (b)]
[40 C.F.R. 71.6(f)(1)]

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

152.1. an enforcement action;

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

152.3. denial of an operating permit renewal application.

[18 AAC 50.040(j), 50.326(j) & 50.345(a) & (c)]

153. For applicable requirements with which the stationary source is in compliance, the Permittee will continue to comply with such requirements

[18 AAC 50.040(j) & 326(j)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(A)]

154. 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)]

155. 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

155.1. enter upon the premises where a source subject to the permit is located or where records required by the permit are kept;

155.2. have access to and copy any records required by the permit;

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

155.4. 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)]

Compliance Schedule

156. For applicable requirements that will become effective during the permit term, the Permittee shall meet such requirements on a timely basis.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(c)(3) & 71.5(c)(8)(iii)(B)]

157. The Permittee shall develop and implement Compliance Assurance Monitoring (CAM) for EU ID 113 in compliance with 40 C.F.R. 64, and by the following compliance schedule described in Conditions 157.1 through 157.4:

157.1. The Permittee shall submit a CAM plan to the Department in accordance with 40 C.F.R. 64 for EU ID 113 by no later than 60 days following issuance of this permit.

157.2. The plan shall include specific information regarding contracts and equipment purchases required to implement the plan.

157.3. No later than six months following issuance of this permit, the Permittee shall have fully implemented the monitoring strategy in accordance with 40 C.F.R. 64 for EU ID 113.

157.4. Until the compliance date, submit a written quarterly, certified progress report. The progress report shall include a summary of activities and progress achieved in the prior calendar quarter to achieve compliance by the compliance date(s) specified above.

[18 AAC 50.040(j) & 50.326(j)]
[40 C.F.R. 71.6(c)(3) & (4) and 71.5(c)(8)(iii)(c) & (c)(8)(iv)]

Section 13. Permit As Shield from Inapplicable Requirements

In accordance with AS 46.14.290, and based on information supplied in the permit application, this section of the permit contains the requirements determined by the Department not to be applicable to the stationary source.

158. Nothing in this permit shall alter or affect the following:

158.1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section; or

158.2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance.

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

159. Table C 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 C becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

[18 AAC 50.326(j)]
[40 C.F.R. 71.6(f)(1)(ii)]

Table C – Permit Shields Granted

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
3 and 4	40 C.F.R. 60 Subparts D, Da, Db, & Dc	EU ID 3 was installed prior to the applicability dates of the subparts.
	40 C.F.R. 63 Subpart JJJJJJ 63.11201(a), (c) and (d), 63.11205(b)-(c), 63.11210(a)-(h), and (j) –(k), 63.11211, 63.11212, 63.11213, 63.11214(a), (c), and (d), 63.11220, 63.11221, 63.11222, 63.11223(g), 63.11224, Table 1, and Table 3 – 8	No emissions or operating limits apply. EU IDs 3 and 4 are existing oil-fired boilers each with a rating of greater than 10 MMBtu/hr equipped with an oxygen trim system that maintains an optimum air-to-fuel ratio located at an area source of HAP emissions.
9A	40 C.F.R. 60 Subpart AAAA	Rated capacity is 83.3 pounds per day (1.0 ton per day), less than the threshold in 40 C.F.R. 60 Subpart AAAA of at least 35 tons per day of municipal solid waste.
	40 C.F.R. 60 Subpart CCCC	UAF is not a Commercial or Industrial facility as defined in 40 C.F.R 60 Subpart CCCC.
	40 C.F.R. 60 Subpart Ec	Existing HMIWI units in Alaska are subject to Federal Plan 40 C.F.R. 62 Subpart HHH and not NSPS Subpart 60 Subpart Ec because ADEC does not have an EPA-approved state plan that covers the HMIWI rules.
17 – 22	40 C.F.R. 63 Subpart JJJJJJ 63.11201(a), (c) and (d), 63.11205(b)-(c), 63.11210(a)-(h), and (j) –(k),	No emissions or operating limits apply. EU IDs 17 – 22 are existing oil-fired boilers with ratings of less than 10 MMBtu/hr located at an

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
	63.11211, 63.11212, 63.11213, 63.11214(a), (c), and (d), 63.11220, 63.11221, 63.11222, 63.11223(g), 63.11224, Table 1, and Table 3 – 8	area source of HAP emissions. EU ID 22 is equipped with an oxygen trim system that maintains an optimum air-to-fuel ratio.
26	40 C.F.R. 63 Subpart ZZZZ 63.6585(a), 63.6590(a)(1)(ii), 63.6590(b), 63.6600, 63.6601, 63.6602, 63.6610, 63.6611, 63.6625(c)(1) – (2), 63.6625(f), 63.6645(b) – (e), Tables 1a, 1b, 2a, 2b, 2c	University of Alaska Fairbanks Campus Power Plant is not a major source of HAP emissions.
	63.6585(f), 63.6625(d), 63.66625(c)(3), 63.6625(f), 63.6640(f), 63.6650(h), 63.6655(f), Table 2d Items 4 and 5	EU ID 26 is not a black start or emergency engine.
	63.6590(a)(2), 63.6590(a)(3), 63.6590(c), 63.6595(a)(2) – (7), 63.6640(d)	EU ID 26 was installed in 1987 and is an existing engine. EU ID 26 has not been reconstructed.
	63.6590(a)(1)(i), 63.6603(b) – (c), 63.6604(a) – (c), 63.6625(g), 63.6645(i), Table 2b, Table 2d Items 2, 3, and 5	EU ID 26 has a rating of less than 100 Hp.
	63.6603(f), 63.6625(c), 63.6625(c)(5) – (10), 63.6625(j), 63.6640(c), 63.6650(g), 63.6655(c), Table 2d Items 6 – 13, Subpart ZZZZ	EU ID 26 is a diesel-fired CI RICE. EU ID 26 does not fire landfill or digester gas.
	63.6604(d)	EU ID 26 is not in a remote location in Alaska.
	63.6612(a) – (b), 63.6615, 63.6620, 63.6625(a) – (b), 63.6630(b) – (e), 63.6635, 63.6645(g) – (h), 63.6655(b), Table 3, 4, 5, Table 6 Items 1 – 8, and 10 – 15	EU ID 26 is not subject to any performance testing requirements under 40 C.F.R. 63 Subpart ZZZZ and is not required to install a CEMS or CPMS. EU ID 26 is not subject to any emissions or operating limitations.
	63.6645(a)	EU ID 26 is not required to submit the notifications in 40 C.F.R. 63.6645 per 40 C.F.R. 63.6645(a)(5) which indicates the requirement does not apply in the case of existing stationary RICE with no numerical emission standards.
	63.6650(a) – (e), Table 7	EU D 26 does not belong to any of the RICE categories required to submit reports, as listed in Table 7 to Subpart ZZZZ
34 and 35	40 C.F.R. 63 Subparts A and ZZZZ	EU IDs 34 and 35 do not have to meet the requirements of 40 C.F.R. 63 Subparts A and ZZZZ per 40 C.F.R. 63.6590(c)(1). These engines are new emergency RICE units subject to NSPS Subpart IIII.
	40 C.F.R. 60.7, Subpart A	Per Table 8 to Subpart IIII, 40 C.F.R. 60.7 only applies as specified in 40 C.F.R. 60.4214(a). EU IDs 34 and 35 have no requirements under 40 C.F.R. 60.4214(a).
	40 C.F.R. Subpart IIII	University of Alaska Fairbanks is not a

EU ID	Non-Applicable Requirements	Reason for Non-Applicability
	60.4200(a)(1), 60.4203, and 60.4210	manufacturer of engines. These are requirements specific to engine manufacturers, that are not referenced in the requirements applicable to the Subpart IIII affected EUs at the stationary source.
	60.4204	These are requirements for non-emergency engines. EU IDs 34 and 35 are emergency engines.
	60.4205(c), Table 3, Table 4 and Table 6, Subpart IIII	These are requirements for fire pump engines. EU IDs 34 and 35 are not fire pump engines.
	60.4205(a), 4211(b), and Table 1	EU IDs 34 and 35 were manufactured after 2010.
	60.4205(d), 4207(d), 60.4211(d), 60.4213, 60.4214(a), and Table 7	EU IDs 34 and 35 have displacements of less than 10 L/cyl.
	60.4205(f) and 60.4211(e)	EU IDs 34 and 35 are not modified or reconstructed engines.
	60.4212	EU IDs 34 and 35 are not required to conduct emissions testing under 40 C.F.R. 60 Subpart IIII
	60.4217	EU IDs 34 and 35 do not use any special fuels.
	Table 2 to Subpart IIII	EU IDs 34 and 35 have ratings greater than 50 hp.
34	60.4211(g)(1) and (3)	EU ID 34 has a rating of between 100 and 500 Hp.
35	60.4211(g)(1) and (2)	EU ID 35 has a rating greater than 500 Hp.
Power Plant Fuel Tank (No EU ID)	40 C.F.R 60 Subpart K, Ka, and Kb	The diesel fuel tank was constructed in 1969, prior to the applicability dates of Subparts K (June 11, 1973), Ka (May 18, 1978), and Kb (July 23, 1984), and has not been modified since.

Section 14. Visible Emissions Forms

VISIBLE EMISSION OBSERVATION FORM

This form is designed to be used in conjunction with EPA Method 9, "Visual Determination of the Opacity of Emissions form Stationary Sources." Temporal changes in emission color, plume water droplet content, background color, sky conditions, observer position, etc. should be noted in the comments section adjacent to each minute of readings. Any information not dealt with elsewhere on the form should be noted under Additional Information. Following are brief descriptions of the type of information that needs to be entered on the form: for a more detailed discussion of each part of the form, refer to "Instructions for Use of Visible Emission Observation Form" (a copy is available in 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 VE observation is being made.
- Phone (Key Contact): number for appropriate contact.
- Source ID Number: number from NEDS, agency file, etc.
- Process Equipment, Operating Mode: brief description of process equipment (include type of facility) and operating rate, % capacity, and/or mode (e.g., charging, tapping, shutdown).
- Control Equipment, Operating Mode: specify type of control device(s) and % utilization, control efficiency.
- Describe Emission Point: for identification purposes, stack or emission point appearance, location, and geometry; and whether emissions are confined (have a specifically designed outlet) or unconfined (fugitive).
- Height Above Ground Level: stack or emission point height relative to ground level; can use engineering drawings, Abney level, or clinometer.
- Height Relative to Observer: indicate height of emission point relative to the observation point.
- Distance from Observer: distance to emission point; can use rangefinder or map.
- Direction from Observer: direction plume is traveling from observer.
- Describe Emissions and Color: include physical characteristics, plume behavior (e.g., looping, lacy, condensing, fumigating, secondary particle formation, distance plume visible, etc.), and color of emissions (gray, brown, white, red, black, etc.). Note color changes in comments section.
- Visible Water Vapor Present?: check "yes" if visible water vapor is present.
- If Present, note in the Comments column whether the Plume is "attached" if water droplet plume forms prior to exiting stack, and "detached" if water droplet plume forms after exiting stack.
- Point in Plume at Which Opacity was Determined: describe physical location in plume where readings were made (e.g., 1 ft above stack exit or 10 ft. after dissipation of water plume).
- Describe Plume Background: object plume is read against, include texture and atmospheric conditions (e.g., hazy).
- Background Color: sky blue, gray-white, new leaf green, etc.
- Sky Conditions: indicate color of clouds and cloud cover by percentage or by description (clear, scattered, broken, overcast).
- Wind Speed: record wind speed; can use Beaufort wind scale or hand-held anemometer to estimate.
- Wind Direction From: direction from which wind is blowing; can use compass to estimate to eight points.
- Ambient Temperature: in degrees Fahrenheit or Celsius.
- Wet Bulb Temperature: can be measured using a sling psychrometer
- RH Percent: relative humidity measured using a sling psychrometer; use local US Weather Bureau measurements only if nearby.
- Source Layout Sketch: include wind direction, sun position, associated stacks, roads, and other landmarks to fully identify location of emission point and observer position.
- Draw North Arrow: to determine, point line of sight in direction of emission point, place compass beside circle, and draw in arrow parallel to compass needle.
- Sun's Location: point line of sight in direction of emission point, move pen upright along sun location line, mark location of sun when pen's shadow crosses the observer's position.
- Observation Date: date observations conducted.
- Start Time, End Time: beginning and end times of observation period (e.g., 1635 or 4:35 p.m.).
- Data Set: percent opacity to nearest 5%; enter from left to right starting in left column. Use a second (third, etc.) form, if readings continue beyond 30 minutes. Use dash (-) for readings not made; explain in adjacent comments section.
- Comments: note changing observation conditions, plume characteristics, and/or reasons for missed readings.
- Range of Opacity: note highest and lowest opacity number.
- Observer's Name: print in full.
- Observer's Signature, Date: sign and date after performing VE observation.
- Observer's Affiliation: observer's employer.
- Certifying Organization, Certified By, Date: name of "smoke school" certifying observer and date of most recent certification.

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

Page No.

Stationary Source Name	Type of Emission Unit		Observation Date			Start Time		End Time		
			Sec / Min	0	15	30	45	Comments		
Emission Unit Location			1							
City	State	Zip	2							
Phone # (Key Contact)	Stationary Source ID Number		3							
Process Equipment	Operating Mode		4							
Control Equipment	Operating Mode		5							
Describe Emission Point/Location			6							
Height above ground level	Height relative to observer	Clinometer Reading	7							
Distance From Observer Start End	Direction From Observer Start End		8							
Describe Emissions & Color Start	End		9							
Visible Water Vapor Present? If yes, determine approximate distance from the stack exit to where the plume was read: No / Yes			10							
Point in Plume at Which Opacity Was Determined			11							
Describe Plume Background	Background Color		12							
Start	Start		13							
End	End									
Sky Conditions: Start	End		14							
Wind Speed Start End	Wind Direction From Start End		15							
Ambient Temperature	Wet Bulb Temp	RH percent	16							
SOURCE LAYOUT SKETCH: 1 Stack or Point Being Read 2 Wind Direction From			17							
3 Observer Location 4 Sun Location 5 North Arrow 6 Other Stacks			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							
			26							
			27							
			28							
			29							
Additional Information:			30							
			Range of Opacity: Minimum					Maximum		
I have received a copy of these opacity observations			Print Observer's Name							
Print Name:			Observer's Signature					Date		
Signature:								Observer's Affiliation:		
Title	Date		Certifying Organization:							
			Certified By:					Date		

Data Reduction:

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

Average Opacity Summary:

Set Number	Time			Opacity		
	Start	End		Sum	Average	Comments

Section 15. 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, respectively, in the fuel. These percentages should total 100%.

The fuel weight percent of sulfur (wt%S_{fuel}) is obtained pursuant to Condition 15.1.a(i)(B) or Condition 15.1.a(ii). The fuel weight percents of carbon and hydrogen are obtained from the fuel refiner.

The volume percent of oxygen in the exhaust (**vol%$_{dry}O_{2,\ exhaust}$**) is obtained from oxygen meters, manufacturer's data, or from the most recent analysis under 40 C.F.R. 60, Appendix A-2, Method 3, adopted by reference in 18 AAC 50.040(a), at the same emissions unit 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 16. Notification Form[51]

University of Alaska Fairbanks Campus — **Stationary Source Name**

AQ0316TVP03 — **Air Quality Permit Number.**

University of Alaska Fairbanks — **Company Name**

When did you discover the Excess Emissions/Permit Deviation?

Date: ____/____/____ Time: ____:____

When did the event/deviation occur?

Begin: Date: ____/____/____ Time: ____:____ (please use 24-hr clock)

End: Date: ____/____/____ Time: ____:____ (please use 24-hr clock)

What was the duration of the event/deviation? ____:____ (hrs:min) or ____days

(total # of hrs, min, or days, if intermittent then include only the duration of the actual emissions/deviation)

Reason for Notification (Please check only 1 box and go to the corresponding section.):

☐ Excess Emissions – Complete Section 1 and Certify

Note: All "excess emissions" are also "permit deviations." However, use only Section 1 for events that involve excess emissions.

☐ Deviation from Permit Conditions – Complete Section 2 and Certify

Note: Use only Section 2 for permit deviations that do not involve excess emissions.

☐ Deviation from COBC[52], CO[53], or Settlement Agreement – Complete Section 2 and Certify

[51] Revised as of July 22, 2020.

[52] Compliance Order By Consent

[53] Compliance Order

Section 1. Excess Emissions

(a) **Was the exceedance** ☐Intermittent or ☐Continuous

(b) **Cause of Event** (Check one that applies. Complete a separate form for each event, as applicable.):

☐Start Up/Shut Down
☐Natural Cause (weather/earthquake/flood)
☐Control Equipment Failure
☐Scheduled Maintenance/Equipment Adjustments
☐Bad fuel/coal/gas
☐Upset Condition
☐Other _____

(c) **Description**

Describe briefly what happened and the cause. Include the parameters/operating conditions exceeded, limits, monitoring data and exceedance. Attach supporting information if necessary.

(d) **Emissions Units (EU) Involved:**

Identify the emissions units involved in the event, using the same identification number and name as in the permit. Identify each emission standard potentially exceeded during the event and the exceedance.

EU ID	EU Name	Permit Condition Exceeded/Limit/Potential Exceedance

(e) **Type of Incident:** (Please check all that apply and provide the value requested, if any):

- ☐ Opacity _____%
- ☐ Control Equipment Down
- ☐ Emission Limit Exceeded
- ☐ Flaring
- ☐ Other**:** _____
- ☐ Venting _____(gas/scf)
- ☐ Fugitive Emissions
- ☐ Marine Vessel Opacity

(f) **Corrective Actions:**

Describe actions taken to restore the system to normal operation and to minimize or eliminate chances of a recurrence. Attach supporting information if necessary.

(g) **Unavoidable Emissions:**

Do you intend to assert that these excess emissions were unavoidable? ☐YES ☐NO

Do you intend to assert the affirmative defense of 18 AAC 50.235? ☐YES ☐NO

Certify Report (<u>go to end of form</u>)

Section 2. Permit Deviations

(a) **Permit Deviation Type:** (Check all boxes that apply per event. Complete a separate form for each event, as applicable.)

- ☐ Emissions Unit-Specific Requirements
- ☐ Stationary Source-Wide Specific Requirements
- ☐ Monitoring/Recordkeeping/Reporting Requirements
- ☐ General Source Test Requirements
- ☐ Compliance Certification Requirements
- ☐ Standard/Generally Applicable Requirements
- ☐ Insignificant Emissions Unit Requirements
- ☐ Other: _____

(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 condition and the deviation.

EU ID	EU Name	Permit Condition /Potential Deviation

(c) **Description of Potential Deviation:**

Describe briefly what happened and the cause. Include the parameters/operating conditions and the potential deviation. Attach supporting information if necessary.

(d) **Corrective Actions:**

Describe actions taken to correct the deviation or potential deviation and to prevent future recurrence. Attach supporting information if necessary.

Certification:

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are true, accurate, and complete.

Printed Name:_____Title_____Date _____

Signature:_____Phone number_____

NOTE: *This document must be certified in accordance with 18 AAC 50.345(j). Read and sign the certification in the bottom of the form above. (See Condition 138.)*

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 138).

[18 AAC 50.346(b)(3)]

Appendix A. Broken Bag Detection Procedure

BROKEN BAG DETECTION PROCEDURE

(From the Section 5.2.2 of the 2017 Manual E880819-1, The Babcock & Wilcox Company)

Checks will be performed daily and documented, as well as, any corrective actions.

5.2.2 Potential Problems

Listed below are some potential problems associated with the operation of the fabric filter system. Listed with each potential problem is a possible cause and remedy for that case.

1) High Opacity Levels or Spikes

Opacity spikes are a telltale sign of filter bag leaks. Opacity spikes can usually only be observed using the analog opacity signal, not the six (6) minute average signal. Figure 5-1, Typical Opacity Readings, illustrates typical analog opacity readings, whereas Figure 5-2, Opacity Readings with Filter Bag Leaks, illustrates analog opacity spikes caused by a leaking bag. In the event of opacity spikes, the operator should take corrective action to locate and repair or replace the leaking bag. Since, in most cases, the six (6) minute average signal is being maintained, a controlled filter bag leak detection procedure is required.

Figure 5-1. Typical Opacity Readings

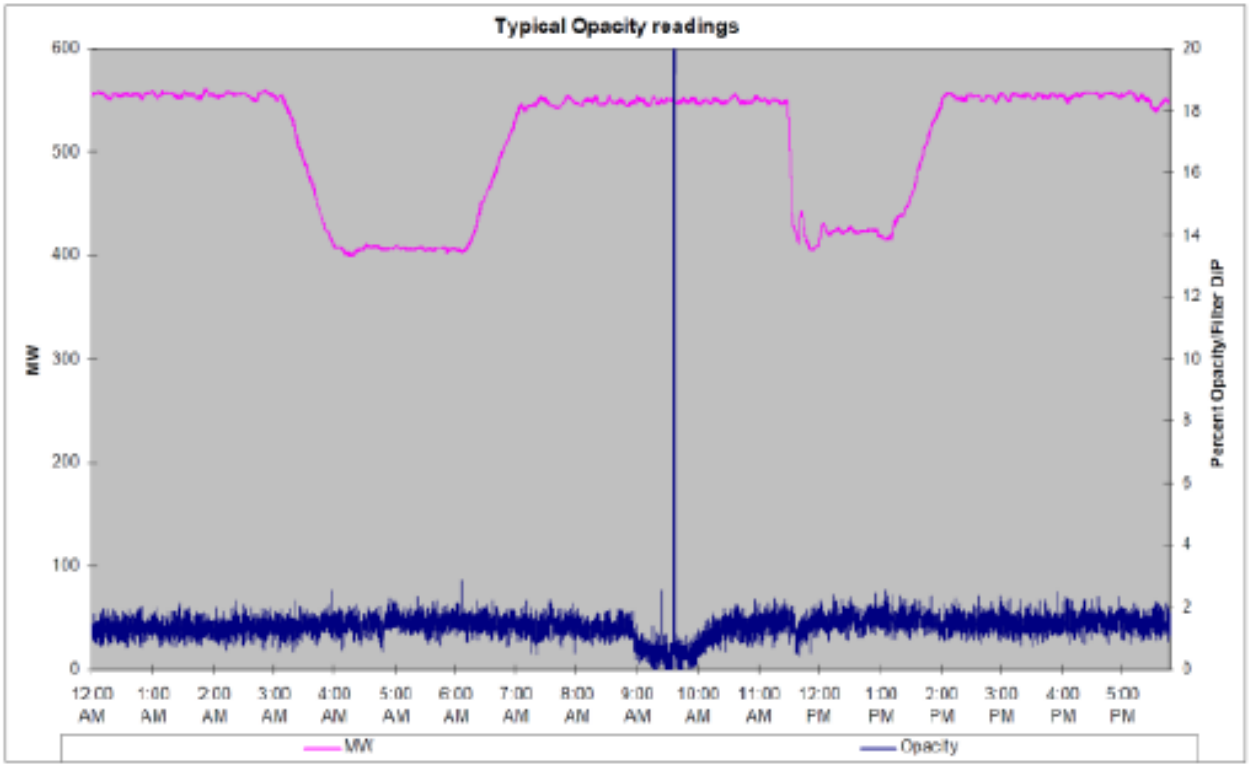
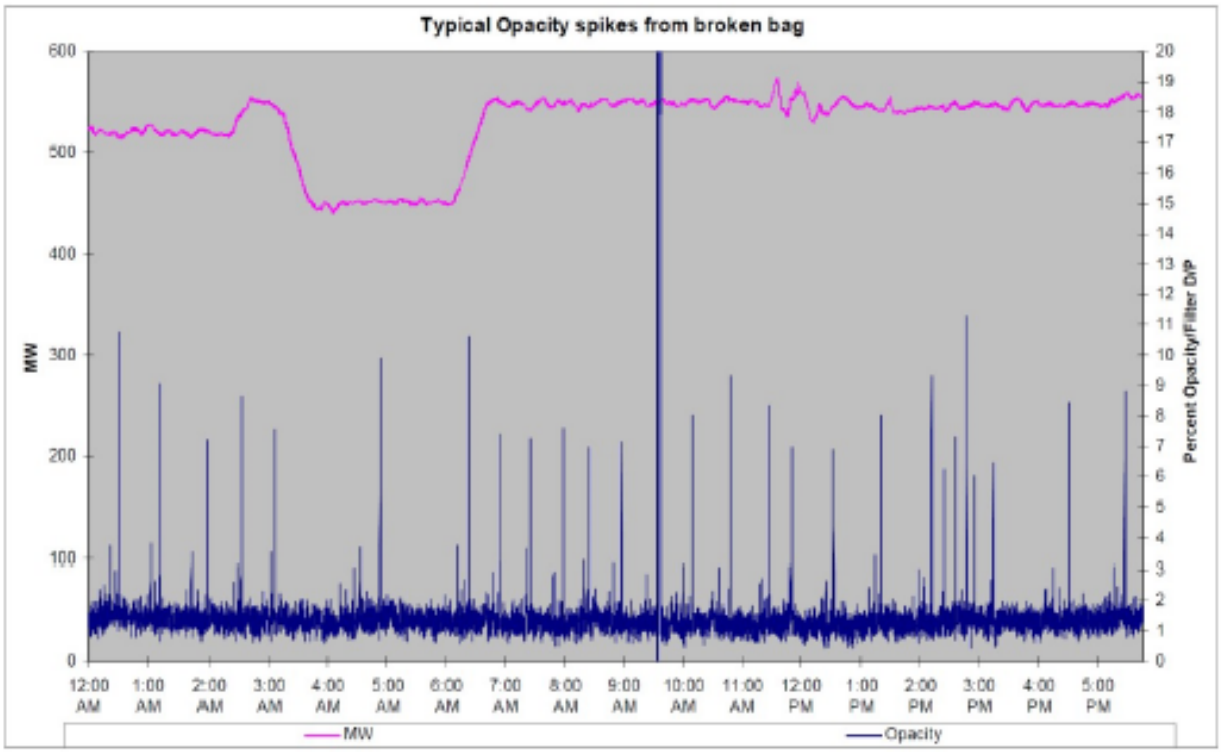


Figure 5-2. Opacity Readings with Filter Bag Leaks



a) Filter Bag Leak Detection Procedure

(1) Using historical data logged in the DCS, review the analog opacity readings for instantaneous opacity spikes and identify which group of pulse air headers is operating when the opacity spikes occur.

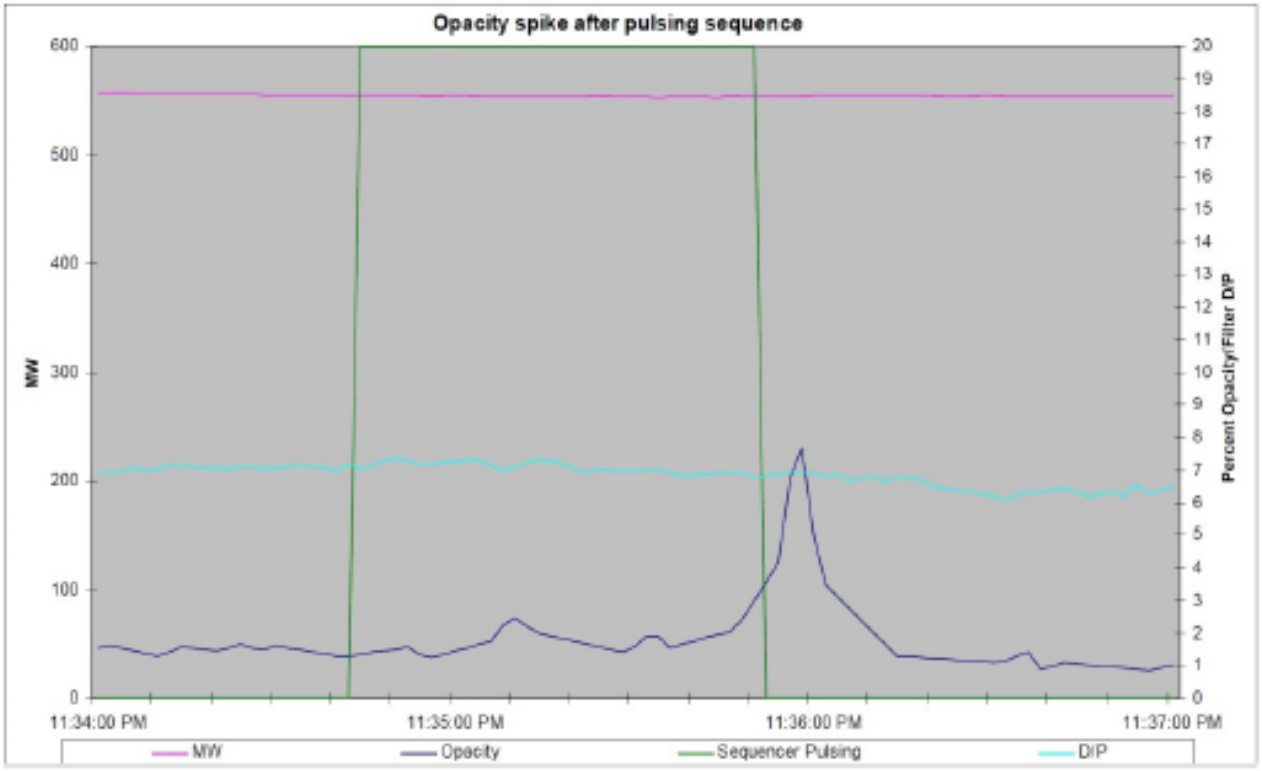
This analysis narrows the leaking filter bag to a bag that is being cleaned by a particular group of headers. Note that the filter bag cleaning operation is broken down into separate groups or events, as specified in Section 2.3, Filter Bag Cleaning Operation.

(2) Initiate a manual cleaning of one (1) of the pulse air headers identified in the previous step from the DCS.

(3) Monitor the analog opacity signal in the distributed control system (DCS) for instantaneous opacity spikes and ascertain whether the leaking filter bag is being cleaned by the pulse air header.

When the pulse air header cleans the leaking filter bag, an opacity spike should occur. Figure 5-3, Opacity Readings with Filter Bag Leaks During a Filter Bag Cleaning Operation, illustrates typical analog opacity spikes caused by a leaking bag during a filter bag cleaning operation.

Figure 5-3. Opacity Readings with Filter Bag Leaks During a Filter Bag Cleaning Operation



(4) Repeat steps 2 and 3 until the pulse air header cleaning the leaking filter bag has been identified.

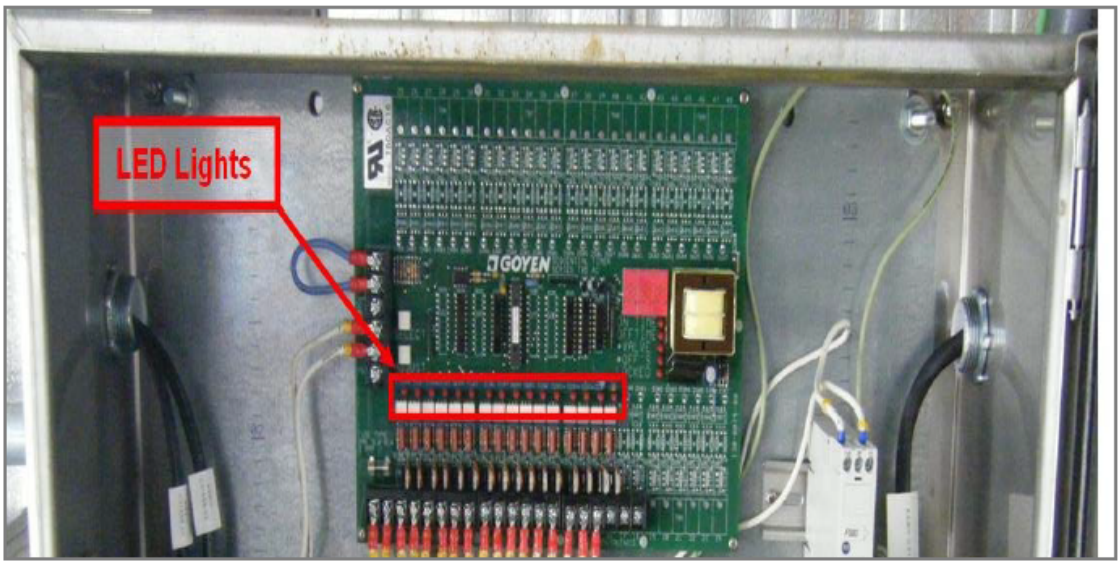
b) Initiate a manual cleaning of the pulse air header identified in the previous step from the DCS.

c) Monitor the analog opacity signal in the DCS, stopping the manual cleaning sequence immediately upon indication of instantaneous opacity spikes.

(1) From the pulse air header sequencer control panel, initiate a manual cleaning of the header and observe where the pulse command starts.

The pulse air header can be manually actuated from the DCS, however, the header sequencer control panel needs to be opened in order to monitor the individual sequencer pulse commands. Figure 5-4, Typical Pulse Air Header Sequencer Control Panel, shows a control panel with the pulse command indication lights highlighted.

Figure 5-4. Typical Pulse Air Header Sequencer Control Panel



d) Review Table 2-2, Pulse Air Header Pulse Valve Firing Sequence, to determine which pulse valve is cleaning the leaking filter bag.

The location of the leaking filter bag will most likely be on one (1) of the last two (2) pulse valves fired.

e) Isolate the compartment with the leaking bag and inspect further to identify exactly which filter bag is leaking. The filter bag can then be replaced following the procedures in this manual.

NOTE

Narrowing down the location of the leaking filter bag is critical in reducing the leak inspection time and thus the overall time the compartment will be removed from service.

2) Inoperative Pneumatic Damper

a. Cause: Loss of compressed air supply.
Remedy: Check compressed air supply isolation valves. Adjust or repair as necessary.

b. Cause: Limit switch out of adjustment.
Remedy: Check limit switch contacts. Adjust or repair as necessary.

c. Cause: No control power output.
Remedy: Check output module and output power to actuator solenoid. Repair as necessary.

d. Cause: Bad actuator solenoid (shorted or open coil).
Remedy: Check actuator solenoid. Repair as necessary.

3) Inoperative or Leaking Pulse Valve

a. Cause: Solenoid valve inoperable.
Remedy: Check solenoid valve. Repair as necessary.

Stop at each pulse air header and watch the pressure gauge drop between pulses and quickly recover. This will indicate the filter bag cleaning operation and pulse valves are working. If the pulse air header pressure does not drop, the filter bag cleaning operation or pulse valve is not working properly.

b. Cause: Pulse valve diaphragm inoperable.
Remedy: Check pulse valve diaphragm. Keeping spare pulse valve diaphragms is recommended. Repair as necessary.

If a leaking pulse valve is suspected, isolate the compartment to remove it from the filter bag cleaning operation. Close the compressed air supply to the pulse air header and monitor the pressure gauge. If the pressure holds, there is no leak. If a leaking valve is detected, operate the pulse valves or open the associate drain valve to bleed the pulse air header pressure and replace valve components as necessary.