NORTH Dakota | Environmental Quality

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Ms. Erin Fox Dukart
Environmental Services Director
Basin Electric Power Cooperative
1717 East Interstate Avenue
Bismarck, ND 58503

Re: Air Quality
Title V (Renewal)
Permit to Operate

Dear Ms. Fox Dukart:

Pursuant to the Air Pollution Control Rules of the State of North Dakota, the Department of Environmental Quality has reviewed your permit renewal application dated October 17, 2023, for the Leland Olds Station located in Mercer County, North Dakota.

Enclosed is a copy of the Department's draft/proposed Title V Permit to Operate and statement of basis for the facility. Before making final determinations on the permit application, the Department provides for public comment by means of the enclosed public notice, to be immediately followed by a 45-day Environmental Protection Agency (EPA) review period. As indicated in the notice, the 30-day public comment period will begin February 23, 2024 and end March 23, 2024.

If any changes are subsequently made to the draft permit, then a review copy of the proposed permit reflecting those changes will be provided to EPA prior to the start of a 45-day EPA review period. The 45-day EPA review period is scheduled to begin March 24, 2024 and end May 7, 2024.

All comments received will be considered in the final determination concerning issuance of the permit. The Department will take final action on the permit application following the public comment period and the EPA review period. You will be notified in writing of our final determination.

If you have any questions, please contact me at (701)328-5218 or email kkschneider@nd.gov.

Sincerely,

Kyla K. Schneider
Environmental Scientist
Division of Air Quality

KKS:er
Enc:
xc/enc: Adam Eisele, EPA/R8 (email – Eisele.Adam@epa.gov)
Julia Witteman, EPA/R8 (email – Witteman.Julia@epa.gov)

NOTICE OF INTENT TO ISSUE AN
AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

Take notice that the North Dakota Department of Environmental Quality (NDDEQ) proposes to reissue a Permit to Operate to Basin Electric Power Cooperative (BEPC) for continued operation of the Leland Olds Station in accordance with the North Dakota Air Pollution Control Rules. The Leland Olds Station is located at is located in Mercer County at 3901 Highway 200A, Stanton, ND in Mercer County and is a coal-fired, base-load electrical generating facility. The BEPC mailing address is 1717 East Interstate Avenue, Bismarck, ND 58503-0564. There are no changes in potential emissions.

A thirty-day public comment period for the draft permit will begin February 23, 2024 and end on March 23, 2024. Direct comments in writing to the NDDEQ, Division of Air Quality, 4201 Normandy Street 2nd Floor, Bismarck, ND 58503-1324 or email AirQuality@nd.gov, Re: Public Comment Permit No. AOP-28362 v6.0. Please note that, to be considered, comments submitted by email must be sent to the email address listed; comments sent to any other email address **will not** be considered. Comments must be received by 11:59 p.m. central time on the last day of the public comment period to be considered in the final permit determination. A public hearing regarding issuance of the permit will be held if a significant degree of public interest exists as determined by the NDDEQ. Requests for a public hearing must be received in writing by the NDDEQ before the end of the public comment period.

The notice, draft permit, statement of basis and application are available for review at the NDDEQ address and at the Division of Air Quality website at https://deq.nd.gov/AQ/PublicCom.aspx. A copy of these documents may be obtained by writing to the Division of Air Quality or contacting Kyla Schneider at (701)328-5218 or emailing kkschneider@nd.gov.

The NDDEQ will consider every request for reasonable accommodation to provide an accessible meeting facility or other accommodation for people with disabilities, language interpretation for people with limited English proficiency (LEP), and translations of written material necessary to access programs and information. Language assistance services are available free of charge to you. To request accommodations or language assistance, contact the NDDEQ Non-discrimination/EJ Coordinator at 701-328-5150 or deqEJ@nd.gov. TTY users may use Relay North Dakota at 711 or 1-800-366-6888.

Dated this 15th day of February 2024

James L. Semerad
Director
Division of Air Quality

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AIR POLLUTION CONTROL
TITLE V PERMIT TO OPERATE

Permittee: **Name:** Basin Electric Power Cooperative **Address:** 1717 E Interstate Avenue Bismarck, ND 58503-0564	**Permit Number:** AOP-28362 v6.0 **Source Name:** Leland Olds Station
Source Location: 3901 Highway 200A Stanton, ND 58571 Sec. 22, T144, R84 Mercer County	**Source Type:** Electric Generating Units; Coal
Expiration Date: April 27, 2029	

Pursuant to Chapter 23.1-06 of the North Dakota Century Code (NDCC), and the Air Pollution Control Rules of the State of North Dakota, Article 33.1-15 of the North Dakota Administrative Code (NDAC), and in reliance on statements and representations heretofore made by the permittee (i.e., owner) designated above, a Title V Permit to Operate is hereby issued authorizing such permittee to operate the emissions units at the location designated above. This Title V Permit to Operate is subject to all applicable rules and orders now or hereafter in effect of the North Dakota Department of Environmental Quality (Department) and to any conditions specified on the following pages. All conditions are enforceable by EPA and citizens under the Clean Air Act unless otherwise noted.

Renewal: TBD

James L. Semerad
Director
Division of Air Quality

Leland Olds Station
Title V Permit to Operate
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1. **Emission Unit Identification**:

The emission units regulated by this permit are as follows:

A. **Point Sources**:

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment
Babcock and Wilcox pulverized coal-fired boiler with a nominal rated heat input capacity of 2,622 x 10^6 Btu/hr (MACT 5U)	Unit 1	1	Electrostatic Precipitator, Low NO_x Burners, Wet Scrubber, Selective Noncatalytic Reduction (SNCR) & Post-combustion Sorbent Injection
Babcock and Wilcox cyclone coal-fired boiler with a nominal rated heat input capacity of 5,130 x 10^6 Btu/hr (MACT 5U)	Unit 2	2	Two Electrostatic Precipitators, Wet Scrubber, SNCR & Post-combustion Sorbent Injection
Auxiliary boiler with a nominal rated heat input capacity of 51.6 x 10^6 Btu/hr fired with #2 fuel oil (MACT 5D)	Auxiliary Boiler	3	None
Diesel-fired emergency fire pump engine rated at 200 bhp (MACT 4Z)	Emergency Fire Pump Engine [A]	5	None
Coal handling system with emissions from the following areas:			
Reclaim tunnel surge chute building	M2	M2	Rotoclone
Crusher house (east)	M3	M3	Rotoclone
Crusher house (west)	M4	M4	Rotoclone
Transfer tower	M5	M5	Rotoclone
Unit 1 bunker house transfer conveyors	M6	M6	Rotoclone
Unit 2 east bunker loading conveyor	M7	M7	Rotoclone
Unit 2 west bunker loading conveyor	M8	M8	Rotoclone
Unit 2 bunker house transfer conveyor 2B2 (west)	M9	M9	Rotoclone
Unit 2 bunker house transfer conveyor 2B3 (east)	M10	M10	Rotoclone
Main fly ash silo	M11	M11	Baghouse
100 ton fly ash silo	M12	M12	Baghouse
Coal unloading facility (NSPS Y)	M13	M13	Baghouse
Agglomerator (NSPS Y)	M14	M14	Baghouse
Unit 1 coal bunkers	M15	M15	Rotoclone
Coal unloading silo (NSPS Y)	M16	M16	Baghouse
Other:			
Sorbent injection silo	M17	M17	Bin Vent Filter

[A] The potential to emit for an emergency stationary reciprocating internal combustion engine (RICE) is based on operating no more hours per year than is allowed by the subpart (40 CFR 63, Subpart ZZZZ) for other than emergency situations. For engines to be considered emergency stationary RICE under the

RICE rules, engine operations must comply with the operating hour limits as specified in the applicable subpart. There is no time limit on the use of emergency stationary RICE in emergency situations [40 CFR 63, Subpart ZZZZ, §63.6640(f)].

B. **Fugitive Emission Sources**:

1) Active coal storage pile

2) Inactive coal storage pile

3) Pebble lime access area

C. **Continuous Emission/Opacity/Monitoring Systems (CEMS/COMS/CMS) for EU Unit 1 and Unit 2 (EP 1 and EP 2)**:

1) The flue gas from EU Unit 1 and EU Unit 2 is emitted through one common stack with separate liners/duct work. Each emission point is equipped with the following continuous emission monitors:

a) One sulfur dioxide continuous emission monitor

b) One nitrogen oxides continuous emission monitor

c) One carbon dioxide continuous emission monitor

d) One sorbent trap monitoring system

e) One opacity monitor

f) One flow monitor

2) The permittee shall calibrate, operate and maintain the CEMS/COMS/CMS equipment.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(a), NDAC 33.1-15-21-09 and NDAC 33.1-15-22-03, Subpart UUUUU

2. **Applicable Standards, Restrictions and Miscellaneous Conditions**:

A. **Fuel Restrictions**:

1) EU Unit 1 and Unit 2 shall be operated using only lignite coal, subbituminous coal and No. 2 fuel oil.

a) Used oil and hazardous waste may be burned in EU Unit 1 and Unit 2 as outlined below.

1] Combustion of Used Oil Containing PCBs (State Enforceable Only): Burning of used oil containing PCBs is allowed in EU Unit 1 and Unit 2 during normal operations subject to the following:

a] The owner/operator shall file a Notification of Hazardous Waste Activity (EPA Form 8700-12) with the Department indicating used oil fuel activities.

b] Only oil which contains less than 50 ppm PCB may be burned. Burning of oil which contains PCB is only allowed for used oil generated by Basin Electric Power Cooperative, its associated electric system, or its associated mining facilities.

c] Soil, rock and other earthen debris contaminated with mineral oil dielectric fluid which contains less than 50 ppm PCB may be burned during periods of stable load.

2] Used Oil Combustion (State Enforceable Only): Burning of used oil is allowed subject to the following:

a] The burning of used oil shall comply with NDAC Sections 33.1-24-05-600 through 33.1-24-05-681 - Standards for the Management of Used Oil - and other applicable rules, regulations, and ordinances.

b] The annual emission inventory reports required by Condition 6.G. shall include the amount of waste oil burned.

2) The permittee shall purchase or otherwise obtain only distillate oil containing no more than 0.0015 percent sulfur by weight for the operation of the auxiliary boiler and the emergency fire pump engine (EU Auxiliary Boiler and EU Emergency Fire Pump Engine).

3) Fuels other than those listed above may be burned if approved in advance by the Department and compliance with the applicable emission limits is maintained.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

B. **New Source Performance Standards (NSPS)**: The permittee shall comply with all applicable requirements of the following NDAC 33.1-15-12-02 and 40 CFR 60 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart Y – Standards of Performance for Coal Preparation Plants (EU M13, M14 and M16).

Applicable Requirements: NDAC 33.1-15-12-02, Subparts A and Y

C. **National Emission Standards for Hazardous Air Pollutants (NESHAP)/Maximum Achievable Control Technology (MACT)**: The permittee shall comply with all applicable

requirements of the following NDAC 33.1-15-22-03 and 40 CFR 63 subparts in addition to complying with Subpart A - General Provisions.

1) Subpart ZZZZ (4Z) – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (EU Emergency Fire Pump Engine).

2) Subpart DDDDD (5D) – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters (EU Auxiliary Boiler).

   a) EU Auxiliary Boiler is classified as a *limited-use boiler*. In order to maintain *limited-use boiler* classification as defined by 40 CFR 63 Subpart DDDDD, EU Auxiliary Boiler is limited to no more than 876 hours per calendar year to provide a federally enforceable average annual capacity factor of no more than 10 percent. This limit ensures the unit is a *limited-use boiler* as defined by 40 CFR 63, Subpart DDDDD.

3) Subpart UUUUU (5U) – National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (EU Unit 1 and Unit 2).

   a) Conduct a tune-up on each existing coal-fired boiler (EU Unit 1 and Unit 2) at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, in accordance with 40 CFR 63, Subpart UUUUU.

Applicable Requirements: NDAC 33.1-15-22-03, Subparts A, ZZZZ, DDDDD and UUUUU

D. **Like-Kind Engine Replacement**: This permit allows the permittee to replace the existing engine with a like-kind engine. Replacement is subject to the following conditions.

1) The Department must be notified within 10 days after change-out of the engine.

2) The replacement engine shall operate in the same manner, provide no increase in throughput and have equal or less emissions than the engine it is replacing.

3) The date of manufacture of the replacement engine must be included in the notification. The facility must comply with any applicable federal standards (e.g. NSPS, NESHAP, MACT) triggered by the replacement.

4) The replacement engine is subject to the same state emission limits as the existing engine in addition to any NSPS or MACT emission limit that is applicable.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

3. **Emission Unit Limits:**

A. **Emission Limits:**

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission Limit	NDAC Applicable Requirement
Babcock and Wilcox pulverized coal-fired boiler	Unit 1	1	PM (filterable)	0.07 lb/10^6 Btu [A] & 0.03 lb/10^6 Btu [B] (See Cond. 3.B) & 184 lb/hr [A]	33.1-15-05-02.2.f & 33.1-15-22, Subpart 5U
			SO_2	0.15 lb/10^6 Btu [B] or 95% reduction of SO_2 to scrubber inlet [B] (See Cond. 3.B) & 3.0 lb/10^6 Btu [A] & 6,930 lb/hr [C]	ACP-17248 v1.0 (PTC10004) & 33.1-15-06.2 & 33.1-15-03-01.2
			NO_x	0.19 lb/10^6 Btu [B] & See Cond. 3.B	ACP-17248 v1.0 & 33.1-15-21
			Hg	4.0 lb/10^{12} Btu [B] or 0.04 lb/GWh [B]	33.1-15-22, Subpart 5U
			HCl	0.002 lb/10^6 Btu [B] or 0.02 lb/MWh [B] or SO_2 Surrogate: 0.2 lb/10^6 Btu [B] or 1.2 lb/MWh [B]	33.1-15-22, Subpart 5U
			Opacity	20% [D]	33.1-15-03-02
Babcock and Wilcox cyclone coal-fired boiler	Unit 2	2	PM (filterable)	0.07 lb/10^6 Btu [A] & 0.03 lb/10^6 Btu [B] (See Cond. 3.B) & 184 lb/hr [A]	33.1-15-05-02.2.f & 33.1-15-22, Subpart 5U
			SO_2	0.15 lb/10^6 Btu [B] or 95% reduction of SO_2 to scrubber inlet [B] (See Cond. 3.B) & 3.0 lb/10^6 Btu [A] & 13,668 lb/hr [C]	ACP-17248 v1.0 & 33.1-15-06.2 & 33.1-15-03-01.2
			NO_x	0.35 lb/10^6 Btu [B] & See Cond. 3.B	ACP-17248 v1.0 & 33.1-15-21
			Hg	4.0 lb/10^{12} Btu [B] or 0.04 lb/GWh [B]	33.1-15-22, Subpart 5U
			HCl	0.002 lb/10^6 Btu [B] or 0.02 lb/MWh [B] or SO_2 Surrogate: 0.2 lb/10^6 Btu [B] or 1.2 lb/MWh [B]	33.1-15-22, Subpart 5U
			Opacity	20% [D]	33.1-15-03-02

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission Limit	NDAC Applicable Requirement
Auxiliary boiler	Auxiliary Boiler	3	PM	0.8 lb/10^6 Btu	33.1-15-05-02.2a
			PM (filterable)	See Cond. 2.A.2	33.1-15-22, Subpart 5D
			SO_2	3.0 lb/10^6 Btu [C]	33.1-15-06-01.2
			CO	See Cond. 2.A.2	33.1-15-22, Subpart 5D
			Opacity	40% [F]	33.1-15-03-01
			Operating Hours	876 hrs/yr	33.1-15-22, Subpart 5D & 33.1-15-14-06.5.b(1)
Diesel engine	Emergency Fire Pump Engine	5	Opacity	20% [D]	33.1-15-03-01.2
			Operating Hours	See Cond. 1.A. Footnote A	33.1-15-22, Subpart 4Z
Coal handling system with emissions from the following areas:					
Reclaim tunnel surge chute building	M2	M2	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Crusher house (east)	M3	M3	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Crusher house (west)	M4	M4	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Transfer tower	M5	M5	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Unit 1 bunker house transfer conveyors	M6	M6	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Unit 2 east bunker loading conveyor	M7	M7	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Unit 2 west bunker loading conveyor	M8	M8	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Unit 2 bunker house transfer conveyor 2B2 (west)	M9	M9	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Unit 2 bunker house transfer conveyor 2B3 (east)	M10	M10	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2

Emission Unit Description	EU	EP	Pollutant/ Parameter	Emission Limit	NDAC Applicable Requirement
Main fly ash silo	M11	M11	PM	0.26 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
100 ton fly ash silo	M12	M12	PM	0.1 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Coal unloading facility	M13	M13	PM	16.97 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	<20%	33.1-15-12, Subpart Y
Agglomerator	M14	M14	PM	0.06 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	<20%	33.1-15-12, Subpart Y
Unit 1 coal bunkers	M15	M15	PM	1.0 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-01.2
Coal unloading silo	M16	M16	PM	0.26 lb/hr [A]	33.1-15-14-06.5.b(1)
			Opacity	<20%	33.1-15-12, Subpart Y
Other:					
Sorbent injection silo	M17	M17	PM	3 lb/hr	33.1-15-14-06.5.b(1)
			Opacity	20% [D]	33.1-15-03-02

[A] 1-hour average
[B] 30-boiler operating day rolling average
[C] 3-hour rolling average
[D] 40% opacity is permissible for not more than one six-minute period per hour.
[E] 60% opacity is permissible for not more than one six-minute period per hour.

B. **EU Unit 1 and Unit 2:**

The term "30-day rolling average," as used in this permit, shall be determined by calculating an arithmetic average of all hourly rates for the current boiler operating day and the previous 29 boiler operating days. A new 30-day rolling average shall be calculated for each boiler operating day. Each 30-day rolling average rate shall include start-up, shutdown, emergency and malfunction periods, unless those periods are exempt by this permit. The 30-day rolling average emission rate is calculated as follows:

- Calculate the hourly average emission rate for any hour in which any fuel is combusted in the boiler.

- Calculate the 30-day rolling average emission rate as the arithmetic average of all valid hourly average emission rates for the 30 successive boiler operating days.

The term "boiler operating day," as used in this permit, means any twenty-four-hour period between midnight and the following midnight during which any fuel is combusted at any time at the steam generating unit.

1) Sulfur dioxide (SO_2) emissions:

a) The permittee shall not discharge or cause the discharge of SO_2 into the atmosphere from EU Unit 1 and Unit 2 in excess of either:

1] 0.15 pounds per million British thermal units ($lb/10^6$ Btu) of heat input on a 30-day rolling average basis; or as an alternative

2] 5.0% of the SO_2 reaching the inlet of the scrubber (95.0% reduction) on a 30-day rolling average basis.

b) For determining compliance with the above emission limits, the permittee may average emissions from Unit 1 and Unit 2 provided the average does not exceed 0.15 $lb/10^6$ Btu; or 5.0 percent (95.0% reduction) of the SO_2 reaching the inlet of the scrubbing system(s), as appropriate.

2) Nitrogen oxide (NO_x) emissions:

a) The permittee shall not discharge or cause the discharge of NO_x into the atmosphere from in excess of the following:

1] EU Unit 1: 0.19 $lb/10^6$ Btu of heat input on a 30-day rolling average basis.

2] EU Unit 2: 0.35 $lb/10^6$ Btu of heat input on a 30-day rolling average basis.

b) For determining compliance with the above NO_x emission limits, the permittee may average emission from EU Unit 1 and Unit 2, provided the actual average emission rate does not exceed the average allowable emission rate calculated in accordance with Condition 4.B.11.

3) Filterable particulate matter (PM) emissions:

a) The permittee shall not discharge or cause the discharge of filterable (non-condensable) PM into the atmosphere in excess of the following:

1] EU Unit 1: 0.07 $lb/10^6$ Btu

2] EU Unit 2: 0.07 $lb/10^6$ Btu

4) The emission limits apply at all times including startup, shutdown, emergency and malfunction.

Applicable Requirement: ACP-17248 v1.0

C. **Opacity Limit for Fugitive Emissions**: The permittee shall not discharge into the ambient air any air contaminant which exhibits an opacity great than 40% for more than one six-minute period per hour. Such visible emissions shall have been visibly transported off the property of emission

origination and remains visible to an observer positioned off said property when sighting along a line which does not cross the property of emission origination.

Applicable Requirement: NDAC 33.1-15-03-03

4. **Monitoring Requirements and Conditions:**

A. **Requirements:**

Emission Unit Description	EP	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Babcock & Wilcox pulverized coal-fired boiler	1	PM	Compliance Assurance Monitoring (CAM) & Emissions Test	4.B.6, 4.B.7 & 4.B.9	33.1-15-14-06.10, 33.1-15-14-06.5.a(3)(a), 33.1-15-21 & 33.1-15-22-03, Subpart 5U
		SO_2	CEMS or Coal Sampling Data & Emission Factor	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-14-06.5.a(3)(a), 33.1-15-21 & ACP-17248 v1.0
		NO_x	CEMS	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-21 & ACP-17248 v1.0
		CO_2	CEMS	4.B.1, 4.B.3 & 4.B.4	33.1-15-21 & ACP-17248 v1.0
		Hg	CEMS or Sorbent Trap Monitoring System	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-22-03, Subpart 5U
		HCl	Emissions Test or SO_2 CEMS	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-22-03, Subpart 5U
		Opacity	COMS	4.B.1, 4.B.2, 4.B.3 & 4.B.4	33.1-15-14-06.5.a(3)(a) & 33.1-15-21
		Flow	Flow Monitor	4.B.1, 4.B.3 & 4.B.4	33.1-15-21 & ACP-17248 v1.0

Emission Unit Description	EP	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Babcock & Wilcox cyclone coal-fired boiler	2	PM	CAM & Emissions Test	4.B.6, 4.B.7 & 4.B.9	33.1-15-14-06.10, 33.1-15-14-06.5.a(3)(a), 33.1-15-21 & 33.1-15-22-03, Subpart 5U
		SO_2	CEMS or Coal Sampling Data & Emission Factor [A]	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-14-06.5.a(3)(a) 33.1-15-21 & ACP-17248 v1.0
		NO_x	CEMS	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-21 & ACP-17248 v1.0
		CO_2	CEMS	4.B.1, 4.B.3 & 4.B.4	33.1-15-21 & ACP-17248 v1.0
		Hg	CEMS or Sorbent Trap Monitoring System	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-22-03, Subpart 5U
		HCl	Emissions Test or SO_2 CEMS	4.B.1, 4.B.3, 4.B.4 & 4.B.6	33.1-15-22-03, Subpart 5U
		Opacity	COMS	4.B.1, 4.B.2, 4.B.3 & 4.B.4	33.1-15-14-06.5.a(3)(a) & 33.1-15-21
		Flow	Flow Monitor	4.B.1, 4.B.3 & 4.B.4	33.1-15-21 & ACP-17248 v1.0
Auxiliary boiler	3	PM	Recordkeeping	4.B.5	33.1-15-14-06.5.a(3)(a)
		SO_2	Recordkeeping	4.B.5 & 4.B.8	33.1-15-14-06.5.a(3)(a)
		Opacity	Recordkeeping	4.B.5	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	4.B.12	33.1-15-14-06.5.a(3)(a)
Diesel engine	5	Opacity	Recordkeeping	4.B.5	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	Cond.1, Footnote A & 4.B.12	33.1-15-22-03, Subpart 4Z
Coal handling system with emissions from the following areas:					
Reclaim tunnel surge chute building	M2	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Crusher house (east)	M3	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Crusher house (west)	M4	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10

Emission Unit Description	EP	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
Transfer tower	M5	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 1 bunker house transfer conveyors	M6	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 2 east bunker loading conveyor	M7	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 2 west bunker loading conveyor	M8	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 2 bunker house transfer conveyor 2B3 (east)	M9	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 2 bunker house transfer conveyor 2B3 (east)	M10	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Main fly ash silo	M11	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
100 ton fly ash silo	M12	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Coal unloading facility	M13	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Agglomerator	M14	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Unit 1 coal bunkers	M15	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Coal unloading silo	M16	PM/Opacity	CAM	4.B.6 & 4.B.9	33.1-15-14-06.10
Other:					
Sorbent injection silo	M17	PM/Opacity	Visible Emissions Observations (VEO)/O&M	4.B.6 & 4.B.13	33.1-15-14-06.5.a(3)(a)

[A] Emission factor refers to the value (e.g. percentage of inlet sulfur leaving the boiler), that is determined by stack testing, which is used to calculate the scrubber SO_2 inlet rate.

B. **Monitoring Conditions**:

1) Monitoring shall be in accordance with the following applicable requirements of Chapter 33.1-15-06, Chapter 33.1-15-12, Chapter 33.1-15-21 and Chapter 33.1-15-22 of the North Dakota Air Pollution Control Rules (NDAC), as applicable. Emissions are calculated using 40 CFR 75, Appendix F and 40 CFR 60, Appendix A.

a) NDAC 33.1-15-06-04, Monitoring Requirements.

b) NDAC 33.1-15-12-02, Subpart A, §60.13, Monitoring Requirements.

c) NDAC 33.1-15-21-09, Monitoring Requirements.

d) NDAC 33.1-15-22-03, Subpart A, §63.8, Monitoring Requirements.

e) NDAC 33.1-15-22-03, Subpart UUUUU, §63.10020, Continuous Compliance Requirements

2) Within one year of issuance of the renewal permit, the permittee shall conduct a performance evaluation of the continuous opacity emission monitoring system (COMS). For the performance evaluation, conformance with the specification for calibration error, Section 13.3 Field Audit Performance Specifications, Paragraph (2) Calibration Error of 40 CFR 60, Appendix B, Performance Specification 1 must be demonstrated. The procedures of Section 8.1, Paragraph (3)(ii) Calibration Check of 40 CFR 60, Appendix B, Performance Specification 1 shall be used to determine conformance with the specification for calibration error.

a) A second performance evaluation of the COMS shall take place no sooner than two years or later than three years from the date of the first performance evaluation.

3) The Department may require additional performance audits of each CEMS.

4) When a failure of a continuous emission monitoring system occurs, an alternative method, acceptable to the Department, for measuring or estimating emissions must be undertaken as soon as possible. The procedures outlined in 40 CFR 75, Subpart D for data substitution are considered an acceptable alternative method. Timely repair of the emission monitoring system must be made.

5) For purposes of compliance monitoring, for EU Auxiliary Boiler and EU Emergency Fire Pump Engine, burning of fuels as outlined in Condition 2.A.2 shall be considered credible evidence of compliance with any applicable opacity, particulate and SO_2 emission limit. However, results from tests conducted in accordance with the test methods in 40 CFR 50, 51, 60, 61, or 75 will take precedence over burning fuels as outlined in Conditions 2.A.2 for evidence of compliance or noncompliance with any applicable opacity, particulate, SO_2, and CO emission limit, in the event of enforcement action.

6) The permittee shall maintain and operate air pollution control and monitoring equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure (developed from the manufacturer's recommended O&M procedures), shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available on site and provide the Department with a copy when requested.

7) a) Within one year of issuance of the renewal permit, the permittee shall conduct an emissions test to measure particulate emissions, using EPA Test Methods in 40 CFR 60, Appendix A or 40 CFR 63, Subpart UUUUU. A test shall consist of three runs, with each run at least one hour in length. Other tests may be used provided they are approved, in advance, by the Department.

Note: This requirement may be satisfied if recurring testing is otherwise performed in accordance with requirements under 40 CFR 63, Subpart UUUUU (including LEE emissions testing; see Condition 4.B.7.b).

b) Conduct particulate emissions performance tests quarterly for unit's subject to 40 CFR 63, Subpart UUUUU. If the permittee maintains Low-Emitting EGU (LEE) status for PM under 40 CFR 63, Subpart UUUUU, the particulate emissions test schedule may be modified to every three years.

8) The sulfur content of the coal used shall be analyzed with each shipment using ASTM or Department approved methods. The sulfur content of the fuel oil used shall be analyzed with each batch of oil using ASTM or Department approved methods. The sulfur analysis for the fuel may be conducted by the permittee or by the source where the fuel is purchased. The permittee shall calculate sulfur dioxide emission rates from the sulfur content of the fuel using EPA emission factors or other methods approved by the Department.

9) The permittee shall conduct the monitoring, recordkeeping and reporting as required by the applicable subparts of 40 CFR 64. The monitoring for EU Unit 1, Unit 2 and M1through M16 is conducted using Compliance Assurance Monitoring (CAM) requirements with respect to particulate matter/opacity. The CAM Plan for EU Unit 1, Unit 2 and M1through M16 is in Attachments A, B, C and D of this permit.

10) In lieu of using a continuous emission monitor to determine the SO_2 reaching the scrubber inlet(s) in accordance with Condition 3.B.1, Basin Electric may use coal sampling and an emission factor established by stack testing. The requirements in 40 CFR 60, Appendix A, Method 19 shall be used to determine coal sampling and analysis requirements.

a) For purposes of determining compliance with the SO_2 percent reduction requirement, the reduction efficiency shall be determined as follows:

$$\%\ Reduction = \frac{Inlet\ SO2\ Rate - Outlet\ SO2\ Rate}{Inlet\ SO2\ Rate} x\ 100$$

Where: The Inlet SO_2 Rate is in units of lb/10^6 Btu, lb/hr, or ppmvd @ 3% O_2 and the Outlet SO_2 Rate is in the same units as the Inlet SO_2 Rate.

11) When averaging the emissions of EU Unit 1 and EU Unit 2, compliance shall be determined in accordance with the following:

$$Average\ AER = \frac{[(AER_1)(HI_1)]+[(AER_2)(HI_2)]}{(HI_1 + HI_2)}$$

$$Average\ ER = \frac{[(ER_1)(HI_1)[+[(ER_2)(HI_2)]}{(HI_1 + HI_2)}$$

AER = Allowable Emission Rate (lb/10^6 Btu or % Reduction)
Average ER = Average Actual Emission Rate
ER_1 = Actual Emission Rate (lb/10^6 Btu or % Reduction) of EU Unit 1

ER_2 = Actual Emission Rate (lb/10^6 Btu or % Reduction) of EU Unit 2
HI_1 = Actual Heat Input (10^6 Btu) of EU Unit 1
HI_2 = Actual Heat Input (10^6 Btu) of EU Unit 2

Notes:
- ER and HI are 30-day rolling averages.
- 30-day rolling average for the 30 successive boiler operating days as defined in Condition 3.B.
- % Reduction can be on either a lb/10^6 Btu, ppmvd @ 3% O_2, or pounds of SO_2 basis.

12) A log shall be kept of the total hours of operation on a calendar year basis for each of the units. For the emergency engine, records shall be maintained to differentiate between time operated for emergency purposes, maintenance/testing purposes, and other nonemergency purposes.

13) At least once per week in which the emission unit is operated, a company representative who is certified or has received Department approved visible emissions training (requires a one-time visible emissions lecture session, plus one-hour visible emissions field training; need not be certified) shall observe the emission point. If no visible emissions are present, the permittee shall record the date, time and observation results. If the observation indicates visible emissions are present:

a) The permittee must investigate for a potential problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the situation is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 7.G. All instances of visible emissions observed, associated investigations of malfunctions, and corrective actions taken shall be recorded.

1] Following corrective maintenance, a visible emissions observation shall be made. If no visible emissions are observed, the date and time shall be recorded. If visible emissions are observed, a formal visible emissions evaluation shall be conducted in accordance with Condition 4.B.13)b.

b) If visible emissions are observed for longer than 24 hours, the permittee shall conduct a formal visible emissions evaluation of the emission point to determine if the emissions are in compliance with the applicable opacity standard. Opacity reading shall consist of three consecutive six-minute periods per day of visible emissions using EPA Reference Method 9 and conducted by a certified visible emissions reader.

c) All investigations of malfunctions and visible emissions shall be recorded. The permittee shall comply with the visible emissions and particulate emission limits and nothing in this condition shall be construed as authorizing otherwise.

5. **Recordkeeping Requirements**:

A. The permittee shall maintain compliance monitoring records as outlined in the Monitoring Records table that include the following information.

1) The date, place (as defined in the permit) and time of sampling or measurement.

2) The date(s) testing was performed.

3) The company, entity, or person that performed the testing.

4) The testing techniques or methods used.

5) The results of such testing.

6) The operating conditions that existed at the time of sampling or measurement.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(3)(b)[1]

Additionally, for EU Unit 1 and Unit 2, the permittee shall maintain the following:

(7) Records of quality assurance for emissions measuring systems including, but not limited to, quality control activities, audits and calibration drifts, as required by the applicable test method.

(8) A copy of all field data sheets from the emissions testing.

(9) A record of all major maintenance activities conducted on the emission units or air pollution control equipment.

(10) Records as to the type of fuel usage.

Applicable Requirement: ACP-17248 v1.0

Monitoring Records

Emission Unit Description	EP	Pollutant/ Parameter	Compliance Monitoring Record
Babcock and Wilcox pulverized coal-fired boiler	1	PM	CAM Data & Emissions Test Data
		SO_2 outlet (lb/10^6 Btu or % reduction) or SO_2 inlet % reduction	CEMS Data or Coal Sampling Data & Emission Factor for Inlet SO_2 Rate
		NO_x	CEMS Data
		CO_2	CEMS Data
		Hg	CEMS Data or Sorbent Trap Monitoring System Data
		HCl	Emission Test Data or SO_2 CEMS Data
		Opacity	COMS Data
		Flow	Flow Monitor Data
Babcock and Wilcox cyclone coal-fired boiler	2	PM	CAM Data & Emissions Test Data
		SO_2 outlet (lb/10^6 Btu or % reduction) or SO_2 inlet % reduction	CEMS Data or Coal Sampling Data & Emission Factor for Inlet SO_2 Rate
		NO_x	CEMS Data
		CO_2	CEMS Data
		Hg	CEMS Data or Sorbent Trap Monitoring System Data
		HCl	Emission Test Data or SO_2 CEMS Data
		Opacity	COMS Data
		Flow	Flow Monitor Data
Auxiliary boiler	3	PM	Type of Fuel Usage
		SO_2	Type of Fuel Usage
		Opacity	Type of Fuel Usage
		Operating Hours	Hours of Operation Data

Emission Unit Description	EP	Pollutant/ Parameter	Compliance Monitoring Record
Diesel engine	5	Opacity Operating Hours	Type of Fuel Usage Hours of Operation Data
Coal handling system with emissions from the following areas:			
Reclaim tunnel surge chute building	M2	PM/Opacity	CAM Data
Crusher house (east)	M3	PM/Opacity	CAM Data
Crusher house (west)	M4	PM/Opacity	CAM Data
Transfer tower	M5	PM/Opacity	CAM Data
Unit 1 bunker house transfer conveyors	M6	PM/Opacity	CAM Data
Unit 2 east bunker loading conveyor	M7	PM/Opacity	CAM Data
Unit 2 west bunker loading conveyor	M8	PM/Opacity	CAM Data
Unit 2 bunker house transfer conveyor 2B2 (west)	M9	PM/Opacity	CAM Data
Unit 2 bunker house transfer conveyor 2B3 (east)	M10	PM/Opacity	CAM Data
Main fly ash silo	M11	PM/Opacity	CAM Data
100 ton fly ash silo	M12	PM/Opacity	CAM Data
Coal unloading facility	M13	PM/Opacity	CAM Data
Agglomerator	M14	PM/Opacity	CAM Data
Unit 1 coal bunkers	M15	PM/Opacity	CAM Data
Coal unloading silo	M16	PM/Opacity	CAM Data
Other:			
Sorbent injection silo	M17	PM/Opacity	VEO/O&M Data

B. In addition to requirements outlined in Condition 5.A, recordkeeping for EU Unit 1 and Unit 2 shall be in accordance with the following applicable requirements of Chapter 33.1-15-06, Chapter 33.1-15-14, Chapter 33.1-15-21 and Chapter 33.1-15-22 of the North Dakota Air Pollution Control Rules (NDAC) and the Acid Rain Program (40 CFR 72 and 40 CFR 75):

1) NDAC 33.1-15-06-05, Reporting and Recordkeeping Requirements.

2) NDAC 33.1-15-14, §64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

3) NDAC 33.1-15-21-09, Recordkeeping Requirements; 40 CFR 72 and 40 CFR 75.

4) NDAC 33.1-15-22, Subpart UUUUU, §63.10032 and §63.10033, Notification, Reports and Records.

5) 40 CFR 75, Subpart F, Recordkeeping Requirements.

Applicable Requirements: NDAC 33.1-15-06, NDAC 33.1-15-14, NDAC 33.1-15-21, NDAC 33.1-15-22, 40 CFR 72, 40 CFR 75 and ACP-17248 v1.0

C. Recordkeeping for EU M13, M14 and M16 shall be in accordance with 40 CFR 60, Subpart Y, §60.258, Reporting and Recordkeeping.

Applicable Requirement: NDAC 33.1-15-12, Subpart Y

D. Recordkeeping for EU Auxiliary Boiler shall be in accordance with 40 CFR 63, Subpart DDDDD, §63.7555 and §63.7560, Notification, Reports and Records.

Applicable Requirement: NDAC 33.1-15-22, Subpart DDDDD

E. Recordkeeping for emission units subject to Compliance Assurance Monitoring (CAM) shall be in accordance with NDAC 33.1-15-14-06.10, §64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

Applicable Requirement: NDAC 33.1-15-14-06.10

F. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings/computer printouts of continuous monitoring instrumentation, and copies of all reports required by the permit.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(3)(b)[2]

6. **Reporting**:

A. For EU Unit 1 and Unit 2, reporting shall be in accordance with the following applicable requirements of Chapter 33.1-15-06 Chapter 33.1-15-21 and Chapter 33.1-15-22 of the North Dakota Air Pollution Control Rules and the Acid Rain Program (40 CFR 72 and 40 CFR 75).

1) NDAC 33.1-15-06-05, Reporting and Recordkeeping Requirements.

2) NDAC 33.1-15-21-09, Reporting and Recordkeeping Requirements.

4) NDAC 33.1-15-22, Subpart UUUUU, §63.10030 and §63.10031, Notification, Reports and Records.

5) 40 CFR 75, Subpart F, Reporting Requirements.

6) Quarterly excess emission reports for EU Unit 1 and Unit 2 shall be submitted by the 30th day following the end of each calendar quarter. Excess emissions are defined as emissions which exceed the emission limits for EU Unit 1 and Unit 2 outlined in Condition 3. Excess emissions shall be reported for the following:

Parameter	Reporting Period
SO_2 lb/10^6 Btu	3-hour rolling average
SO_2 lb/10^6 Btu or percent reduction	30-day rolling average
SO_2 lb/hr	3-hour rolling average
NO_x lb/10^6 Btu	30-day rolling average
Hg lb/10^{12} Btu	30-boiler operating day rolling average
Opacity %	6-minute average

Applicable Requirements: NDAC 33.1-15-06, NDAC 33.1-15-21, NDAC 33.1-15-22, 40 CFR 72, 40 CFR 75 and ACP-17248 v1.0

B. Reporting for emission units subject to Compliance Assurance Monitoring (CAM) 40 CFR 64 shall be in accordance with NDAC 33.1-15-14-06.10 (40 CFR 64, §64.9) - Reporting and Recordkeeping Requirements, Paragraph (a) General Reporting Requirements.

Applicable Requirement: NDAC 33.1-15-14-06.10

C. For EU Auxiliary Boiler, reporting shall be in accordance with 40 CFR 63, Subpart A, §63.10, Recordkeeping and Reporting and 40 CFR 63, Subpart DDDDD, Notification, Reports and Records.

Applicable Requirement: NDAC 33.1-15-22

D. The permittee shall submit a semi-annual monitoring report for all monitoring records required under Condition 5 in a format provided or approved by the Department. All instances of deviations from the permit must be identified in the report. A monitoring report shall be submitted within 45 days after June 30 and December 31 of each year.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(c)[1] and [2]

E. The permittee shall submit an annual compliance certification report in accordance with NDAC 33.1-15-14-06.5.c(5) within 45 days after December 31 of each year in a format provided or approved by the Department.

Applicable Requirement: NDAC 33.1-15-14-06.5.c(5)

F. For emission units where the method of compliance monitoring is demonstrated by an EPA Test Method or a portable analyzer test, the test report shall be submitted to the Department within 60 days after completion of the test.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(e)

G. The permittee shall submit an annual emission inventory report (AEIR) in a format provided or approved by the Department. This report shall be submitted by March 15 of each year. Insignificant units/activities listed in this permit do not need to be included in the report.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(7) and NDAC 33.1-15-23-04

7. **Facility Wide Operating Conditions**:

A. **Ambient Air Quality Standards**:

1) Particulate and gases. The permittee shall not emit air contaminants in such a manner or amount that would violate the standards of ambient air quality listed in Table 1 of NDAC 33.1-15-02, external to buildings, to which the general public has access.

2) Radioactive substances. The permittee shall not release into the ambient air any radioactive substances exceeding the concentrations specified in NDAC 33.1-10.

3) Other air contaminants. The permittee shall not emit any other air contaminants in concentrations that would be injurious to human health or well-being or unreasonably interfere with the enjoyment of property or that would injure plant or animal life.

4) Disclaimer. Nothing in any other part or section of this permit may in any manner be construed as authorizing or legalizing the emission of air contaminants in such manner that would violate the standards in Paragraphs 1), 2) and 3) of this condition.

Applicable Requirements: NDAC 33.1-15-02-04 and 40 CFR 50.1(e)

B. **Fugitive Emissions**: The release of fugitive emissions shall comply with the applicable requirements in NDAC 33.1-15-17.

Applicable Requirement: NDAC 33.1-15-17

C. **Open Burning**: The permittee may not cause, conduct, or permit open burning of refuse, trade waste, or other combustible material, except as provided for in Section 33.1-15-04-02 and may not conduct, cause, or permit the conduct of a salvage operation by open burning. Any permissible open burning under NDAC 33.1-15-04-02 must comply with the requirements of that section.

Applicable Requirement: NDAC 33.1-15-04

D. **Asbestos Renovation or Demolition**: Any asbestos renovation or demolition at the facility shall comply with emission standard for asbestos in NDAC 33.1-15-13.

Applicable Requirement: NDAC 33.1-15-13-02

E. **Requirements for Organic Compounds Gas Disposal**:

1) Any organic compounds, gases and vapors which are generated as wastes as the result of storage, refining or processing operations and which contain hydrogen sulfide shall be incinerated, flared or treated in an equally effective manner before being released into the ambient air.

2) Each flare must be equipped and operated with an automatic ignitor or a continuous burning pilot.

Applicable Requirement: NDAC 33.1-15-07-02

F. **Rotating Pumps and Compressors**: All rotating pumps and compressors handling volatile organic compounds must be equipped and operated with properly maintained seals designed for their specific product service and operating conditions.

Applicable Requirement: NDAC 33.1-15-07-01.5

G. **Shutdowns/Malfunction/Continuous Emission Monitoring System Failure**:

1) Maintenance Shutdowns. In the case of shutdown of air pollution control equipment for necessary scheduled maintenance, the intent to shut down such equipment shall be reported to the Department at least 24 hours prior to the planned shutdown provided that the air contaminating source will be operated while the control equipment is not in service. Such prior notice shall include the following:

a) Identification of the specific facility to be taken out of service as well as its location and permit number.

b) The expected length of time that the air pollution control equipment will be out of service.

c) The nature and estimated quantity of emissions of air pollutants likely to be emitted during the shutdown period.

d) Measures, such as the use of off-shift labor and equipment, that will be taken to minimize the length of the shutdown period.

e) The reasons that it would be impossible or impractical to shut down the source operation during the maintenance period.

f) Nothing in this subsection shall in any manner be construed as authorizing or legalizing the emission of air contaminants in excess of the rate allowed by this article or a permit issued pursuant to this article.

Applicable Requirement: NDAC 33.1-15-01-13.1

2) Malfunctions.

a) When a malfunction in any installation occurs that can be expected to last longer than 24 hours and cause the emission of air contaminants in violation of this article or other applicable rules and regulations, the person responsible for such installation shall notify the Department of such malfunction as soon as possible during normal working hours. The notification must contain a statement giving all pertinent facts, including the estimated duration of the breakdown. The Department shall be notified when the condition causing the malfunction has been corrected.

b) Immediate notification to the Department is required for any malfunction that would threaten health or welfare or pose an imminent danger. During normal working hours the Department can be contacted at 701-328-5188. After hours the Department can be contacted through the 24-hour state radio emergency number 1-800-472-2121. If calling from out of state, the 24-hour number is 701-328-9921.

c) Unavoidable Malfunction. The owner or operator of a source who believes any excess emissions resulted from an unavoidable malfunction shall submit a written report to the Department which includes evidence that:

[1] The excess emissions were caused by a sudden, unavoidable breakdown of technology that was beyond the reasonable control of the owner or operator.

[2] The excess emissions could not have been avoided by better operation and maintenance, did not stem from an activity or event that could have been foreseen and avoided, or planned for.

[3] To the extent practicable, the source maintained and operated the air pollution control equipment and process equipment in a manner consistent with good practice for minimizing emissions, including minimizing any bypass emissions.

[4] Any necessary repairs were made as quickly as practicable, using off-shift labor and overtime as needed and possible.

[5] All practicable steps were taken to minimize the potential impact of the excess emissions on ambient air quality.

[6] The excess emissions are not part of a recurring pattern that may have been caused by inadequate operation or maintenance, or inadequate design of the malfunctioning equipment.

The report shall be submitted within 30 days of the end of the calendar quarter in which the malfunction occurred or within 30 days of a written request by the Department, whichever is sooner.

The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred. The Department may elect not to pursue enforcement action after considering whether excess emissions resulted from an unavoidable equipment malfunction. The Department will evaluate, on a case-by-case basis, the information submitted by the owner or operator to determine whether to pursue enforcement action.

Applicable Requirement: NDAC 33.1-15-01-13.2

3) Continuous Emission Monitoring System Failures. When a failure of a continuous emission monitoring system occurs, an alternative method for measuring or estimating emissions must be undertaken as soon as possible. The owner or operator of a source that uses an alternative method shall have the burden of demonstrating that the method is accurate. Timely repair of the emission monitoring system must be made. The provisions of this subsection do not apply to sources that are subject to monitoring requirements in Chapter 33.1-15-21 (40 CFR 75, Acid Rain Program).

Applicable Requirement: NDAC 33.1-15-01-13.3

H. **Air Pollution from Internal Combustion Engines**: The permittee shall comply with all applicable requirements of NDAC 33.1-15-08-01 – Internal Combustion Engine Emissions Restricted.

Applicable Requirement: NDAC 33.1-15-08-01

I. **Prohibition of Air Pollution.**

1) The permittee shall not permit or cause air pollution, as defined in NDAC 33.1-15-01-04.

2) Nothing in any other part of this permit or any other regulation relating to air pollution shall in any manner be construed as authorizing or legalizing the creation or maintenance of air pollution.

Applicable Requirement: NDAC 33.1-15-01-15

J. **Performance Tests**:

1) The Department may reasonably require the permittee to make or have made tests, at a reasonable time or interval, to determine the emission of air contaminants from any source, for the purpose of determining whether the permittee is in violation of any standard or to satisfy other requirements of NDCC 23.1-06. All tests shall be made, and the results calculated in accordance with test procedures approved or specified by the Department including the North Dakota Department of Environmental Quality Emission Testing Guideline. All tests shall be conducted by reputable, qualified personnel. The Department shall be given a copy of the test results in writing and signed by the person responsible for the tests.

2) The Department may conduct tests of emissions of air contaminants from any source. Upon request of the Department, the permittee shall provide necessary and adequate access into stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants.

Applicable Requirement: NDAC 33.1-15-01-12

3) Except for sources subject to 40 CFR 63, the permittee shall notify the Department by submitting a Proposed Test Plan, or its equivalent, at least 30 calendar days in advance of any tests of emissions of air contaminants required by the Department. The permittee shall notify the Department at least 60 calendar days in advance of any performance testing required under 40 CFR 63, unless otherwise specified by the subpart. If the permittee is unable to conduct the performance test on the scheduled date, the permittee shall notify the Department as soon as practicable when conditions warrant and shall coordinate a new test date with the Department.

Failure to give the proper notification may prevent the Department from observing the test. If the Department is unable to observe the test because of improper notification, the test results may be rejected.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(3)(a), NDAC 33.1-15-12-02 Subpart A (40 CFR 60.8), NDAC 33.1-15-13-01.2 Subpart A (40 CFR 61.13), NDAC 33.1-15-22-03 Subpart A (40 CFR 63.7)

K. **Pesticide Use and Disposal**: Any use of a pesticide or disposal of surplus pesticides and empty pesticide containers shall comply with the requirements in NDAC 33.1-15-10.

Applicable Requirements: NDAC 33.1-15-10-01 and NDAC 33.1-15-10-02

L. **Air Pollution Emergency Episodes**: When an air pollution emergency episode is declared by the Department, the permittee shall comply with the requirements in NDAC 33.1-15-11.

Applicable Requirements: NDAC 33.1-15-11-01 through NDAC 33.1-15-11-04

M. **Stratospheric Ozone Protection**: The permittee shall comply with any applicable standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in Subpart B:

1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to Section 82.156.

2) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to Section 82.158.

3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to Section 82.161.

4) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to Section 82.156.

Applicable Requirement: 40 CFR 82

N. **Chemical Accident Prevention**: The permittee shall comply with all applicable requirements of Chemical Accident Prevention pursuant to 40 CFR 68. The permittee shall comply with the requirements of this part no later than the latest of the following dates:

1) Three years after the date on which a regulated substance is first listed under this part; or

2) The date on which a regulated substance is first present above a threshold quantity in a process.

Applicable Requirement: 40 CFR 68

O. **Air Pollution Control Equipment**: The permittee shall maintain and operate air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The manufacturer's recommended Operations and Maintenance (O&M) procedures, or a site-specific O&M procedure developed from the manufacturer's recommended O&M procedures, shall be followed to assure proper operation and maintenance of the equipment. The permittee shall have the O&M procedures available onsite and provide the Department with a copy when requested.

Applicable Requirement: NDAC 33.1-15-14-06.5.b(1)

P. **Prevention of Significant Deterioration of Air Quality** (40 CFR 52.21 as incorporated by NDAC Chapter 33.1-15-15): If this facility is classified as a major stationary source under the Prevention of Significant Deterioration of Air Quality (PSD) rules, a Permit to Construct must be obtained from the Department for any project which meets the definition of a "major modification" under 40 CFR 52.21(b)(2).

If this facility is classified as a major stationary source under the PSD rules and the permittee elects to use the method specified in 40 CFR 52.21(b)(41)(ii)(a) through (c) for calculating the projected actual emissions of a proposed project, then the permittee shall comply with all applicable requirements of 40 CFR 52.21(r)(6).

Applicable Requirement: NDAC 33.1-15-15-01.2

8. **General Conditions**:

A. **Annual Fee Payment**: The permittee shall pay an annual fee, for administering and monitoring compliance, which is determined by the actual annual emissions of regulated contaminants from the previous calendar year. The Department will send a notice, identifying the amount of the annual permit fee, to the permittee of each affected installation. The fee is due within 60 days following the date of such notice. Any source that qualifies as a "small business" may petition the Department to reduce or exempt any fee required under this section. Failure to pay the fee in a timely manner or submit a certification for exemption may cause this Department to initiate action to revoke the permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(7) and NDAC 33.1-15-23-04

B. **Permit Renewal and Expiration**: This permit shall be effective from the date of its issuance for a fixed period of five years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least six months, but no more than 18 months, prior to the date of permit expiration. The Department shall approve or disapprove the renewal application within 60 days of receipt. Unless the Department requests additional information or otherwise notifies the applicant of incompleteness, the application shall be deemed complete. For timely and complete renewal applications for which the Department has failed to issue or deny the renewal permit before the expiration date of the previous permit, all terms and conditions of the permit, including any permit shield previously granted shall remain in effect until the renewal permit has been issued or denied. The application for renewal shall include the current permit number, description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term.

Applicable Requirements: NDAC 33.1-15-14-06.4 and NDAC 33.1-15-14-06.6

C. **Transfer of Ownership or Operation**: This permit may not be transferred except by procedures allowed in Chapter 33.1-15-14 and is to be returned to the Department upon the destruction or change of ownership of the source unit(s), or upon expiration, suspension or revocation of this permit. A change in ownership or operational control of a source is treated as an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Department.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

D. **Property Rights**: This permit does not convey any property rights of any sort, or any exclusive privilege.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(d)

E. **Submissions**:

1) Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to the Department using a format provided or approved by the Department. Physical submittals shall be submitted to:

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324

2) Any application form, report or compliance certification submitted shall be certified as being true, accurate, and complete by a responsible official.

Applicable Requirement: NDAC 33.1-15-14-06.4.d

F. **Right of Entry**: Any duly authorized officer, employee or agent of the North Dakota Department of Environmental Quality may enter and inspect any property, premise or place listed on this permit or where records are kept concerning this permit at any reasonable time for the purpose of ascertaining the state of compliance with this permit and the North Dakota Air Pollution Control Rules. The Department may conduct tests and take samples of air contaminants, fuel, processing material, and other materials which affect or may affect emissions of air contaminants from any source. The Department shall have the right to access and copy any records required by the Department's rules and to inspect monitoring equipment located on the premises.

Applicable Requirements: NDAC 33.1-15-14-06.5.c(2) and NDAC 33.1-15-01-06

G. **Compliance**: The permittee must comply with all conditions of this permit. Any noncompliance with a federally-enforceable permit condition constitutes a violation of the Federal Clean Air Act. Any noncompliance with any State enforceable condition of this permit constitutes a violation of NDCC Chapter 23.1-06 and NDAC 33.1-15. Violation of any condition of this permit is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Noncompliance may also be grounds for assessment of penalties under the NDCC 23.1-06. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(a) and NDAC 33.1-15-14-06.5.a(6)(b)

H. **Duty to Provide Information**: The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. This includes instances where an alteration, repair, expansion, or change in method of operation of the source occurs. Upon request, the permittee shall also furnish to the

Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such recourse directly to the Department along with a claim of confidentiality. The permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. Items that warrant supplemental information submittal include, but are not limited to, changes in the ambient air boundary and changes in parameters associated with emission points (i.e., stack parameters). The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

Applicable Requirements: NDAC 33.1-15-14-06.5.a(6)(e), NDAC 33.1-15-14-06.6.b(3) and NDAC 33.1-15-14-06.4.b

I. **Reopening for Cause**: The Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1) Additional applicable requirements under the Federal Clean Air Act become applicable to the permittee with a remaining permit term of three or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.

2) The Department or the United States Environmental Protection Agency determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

3) The Department or the United States Environmental Protection Agency determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

4) Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Department at least 30 days in advance of the date that this permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency. Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

Applicable Requirement: NDAC 33.1-15-14-06.6.f

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

Applicable Requirement: NDAC 33.1-15-14-06.5.a(6)(c)

K. **Off-Permit Changes**: A permit revision is not required for changes that are not addressed or prohibited by this permit, provided the following conditions are met:

1) No such change may violate any term or condition of this permit.

2) Each change must comply with all applicable requirements.

3) Changes under this provision may not include changes or activities subject to any requirement under Title IV or that are modifications under any provision of Title I of the Federal Clean Air Act.

4) A Permit to Construct under NDAC 33.1-15-14-02 has been issued, if required.

5) Before the permit change is made, the permittee must provide written notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, except for changes that qualify as insignificant activities in Section 33.1-15-14-06. This notice shall describe each change, the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result.

6) The permittee shall record all changes that result in emissions of any regulated air pollutant subject to any applicable requirement not otherwise regulated under this permit, and the emissions resulting from those changes. The record shall reside at the permittee's facility.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(3)

L. **Administrative Permit Amendments**: This permit may be revised through an administrative permit amendment, if the revision to this permit accomplishes one of the following:

1) Corrects typographical errors.

2) Identifies a change in the name, address or phone number of any person identified in this permit or provides a similar minor administrative change at the source.

3) Requires more frequent monitoring or reporting by the permittee.

4) Allows for a change in ownership or operational control of the source where the Department determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the Department.

5) Incorporates into the Title V permit the requirements from a Permit to Construct when the review was substantially equivalent to Title V requirements for permit issuance, renewal, reopenings, revisions and permit review by the United States Environmental Protection Agency and affected state review, that would be applicable to the change if it were subject to review as a permit modification and compliance requirements substantially equivalent to Title V requirements for permit content were contained in the Permit to Construct.

6) Incorporates any other type of change which the Administrator of the United States Environmental Protection Agency has approved as being an administrative permit amendment as part of the Department's approved Title V operating permit program.

Applicable Requirement: NDAC 33.1-15-14-06.6.d

M. **Minor Permit Modification**: This permit may be revised by a minor permit modification, if the proposed permit modification meets the following requirements:

1) Does not violate any applicable requirement.

2) Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in this permit.

3) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis.

4) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Federal Clean Air Act; and alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Federal Clean Air Act.

5) Is not a modification under NDAC 33.1-15-12, 33.1-15-13, and 33.1-15-15 or any provision of Title I of the Federal Clean Air Act.

6) Is not required to be processed as a significant modification.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(1)

N. **Significant Modifications**:

1) Significant modification procedures shall be used for applications requesting permit modifications that do not qualify as minor permit modifications or as administrative amendments. Every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping permit terms or conditions shall be considered significant. Nothing therein shall be construed to preclude the permittee from making changes consistent with this subsection that would render existing permit compliance terms and conditions irrelevant.

2) Significant permit modifications shall meet all Title V requirements, including those for applications, public participation, review by affected states, and review by the United States Environmental Protection Agency, as they apply to permit issuance and permit

renewal. The Department shall complete review of significant permit modifications within nine months after receipt of a complete application.

Applicable Requirement: NDAC 33.1-15-14-06.6.e(3)

O. **Operational Flexibility**: The permittee is allowed to make a limited class of changes within the permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, are not Title I modifications and a Permit to Construct is not required. This class of changes does not include changes that would violate applicable requirements, or changes to federally-enforceable permit terms or conditions that are monitoring, recordkeeping, reporting, or compliance certification requirements.

The permittee is required to send a notice to both the Department and Air Program (8P-AR), Office of Partnerships & Regulatory Assistance, US EPA Region 8, 1595 Wynkoop Street, Denver, CO 80202-1129, at least seven days in advance of any change made under this provision. The notice must describe the change, when it will occur and any change in emissions, and identify any permit terms or conditions made inapplicable as a result of the change. The permittee shall attach each notice to its copy of this permit. Any permit shield provided in this permit does not apply to changes made under this provision.

Applicable Requirement: NDAC 33.1-15-14-06.6.b(2)

P. **Relationship to Other Requirements**: Nothing in this permit shall alter or affect the following:

1) The provisions of Section 303 of the Federal Clean Air Act (emergency orders), including the authority of the administrator of the United States Environmental Protection Agency under that section.

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.

3) The ability of the United States Environmental Protection Agency to obtain information from a source pursuant to Section 114 of the Federal Clean Air Act.

4) Nothing in this permit shall relieve the permittee of the requirement to obtain a Permit to Construct.

Applicable Requirements: NDAC 33.1-15-14-06.3 and NDAC 33.1-15-14-06.5.f(3)(a), (b) and (d)

Q. **Severability Clause**: The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Applicable Requirement: NDAC 33.1-15-14-06.5.a(5)

R. **Circumvention**: The permittee shall not cause or permit the installation or use of any device of any means which conceals or dilutes an emission of air contaminants which would otherwise violate this permit.

Applicable Requirement: NDAC 33.1-15-01-08

9. **Phase II Acid Rain Provisions**:

Affected Source Unit:
Leland Olds Station
ORIS Plant Code: 2817
Boiler ID: 1 and 2

This section incorporates the definition of terms in NDAC Chapter 33.1-15-21 by reference.

A. **Permit Requirements**:

1) The designated representative of each affected source and each affected unit at the source shall:

a) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR 72 in accordance with the deadlines specified in NDAC 33.1-15-14-06.4 and 40 CFR 72.30, including application for permit renewal; and

b) Submit in a timely manner any supplemental information that the North Dakota Department of Environmental Quality, Division of Air Quality determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit.

2) The owners and operators of each affected source and each affected unit at the source shall:

a) Operate the unit in compliance with a complete Acid Rain permit application including any application for permit renewal or a superseding Acid Rain permit issued by the North Dakota Department of Environmental Quality, Division of Air Quality; and

b) Have an Acid Rain permit.

Applicable Requirements: NDAC 33.1-15-21-08.1 and NDAC 33.1-15-21-09

B. **Monitoring Requirements**:

1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR 74, 75, and 76.

2) The emissions measurements recorded and reported in accordance with 40 CFR 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and

emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

3) The requirements of 40 CFR 74 and 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Federal Clean Air Act and other provisions of the operating permit for the source.

Applicable Requirements: NDAC 33.1-15-21-08.1 and NDAC 33.1-15-21-09 and 40 CFR 76

C. **Sulfur Dioxide Requirements**:

1) The owners and operators of each source and each affected unit at the source shall:

a) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and

b) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Federal Clean Air Act.

3) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

4) An allowance shall not be deducted in order to comply with the requirements under Condition 9.C.1)a of this permit prior to the calendar year for which the allowance was allocated.

5) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, this Permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

6) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Applicable Requirements: NDAC 33.1-15-21-08.1, NDAC 33.1-15-21-09 and 40 CFR 73

D. **Nitrogen Oxides Requirements**:

1) NO_x Emission Limitations: The owner or operator shall not discharge, or allow to be discharged, emissions of NO_x to the atmosphere in excess of the following:

Boiler ID	NO_x Limitation
1	0.46 lb/10^6 Btu*
2	0.86 lb/10^6 Btu*

*Annual average basis

The owner/operator shall also comply with the duty under 40 CFR 76.9(d) to reapply for a NO_x compliance plan prior to expiration of this permit and requirements under 40 CFR 76.13 for calculating excess NO_x emissions.

Applicable Requirements: 40 CFR 76.5(a)(1), 76.7(a)(2), 76.8(a)(1), 76.9(d), 76.13 and NDAC 33.1-15-21-10

E. **Excess Emissions Requirements**:

1) The designated representative of an affected unit that has excess emissions of SO_2 in any calendar year shall submit a proposed offset plan, to the Administrator as required under 40 CFR 77, with a copy to the North Dakota Department of Environmental Quality, Division of Air Quality.

2) The owners and operators of an affected unit that has excess emissions of NO_x or SO_2 in any calendar year shall:

a) Pay to the Administrator without demand the penalty required, and pay to the Administrator upon demand the interest on that penalty, as required by 40 CFR 77; and

b) Comply with the terms of an approved offset plan for SO_2, as required by 40 CFR 77.

Applicable Requirements: NDAC 33.1-15-21-08.1, NDAC 33.1-15-21-09 and 40 CFR 77

F. **Recordkeeping and Reporting Requirements**:

1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on-site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator of the U.S. EPA or the North Dakota Department of Environmental Quality, Division of Air Quality.

a) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on-site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

b) All emissions monitoring information, in accordance with 40 CFR 75, provided that to the extent that 40 CFR 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;

c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

d) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR 72, Subpart I, NDAC 33.1-15-21-08, and 40 CFR 75.

Applicable Requirements: NDAC 33.1-15-21-08.1 and NDAC 33.1-15-21-09

G. **Liability**:

1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, this Acid Rain Permit, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to Section 113(c) of the Federal Clean Air Act.

2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to Section 113(c) of the Federal Clean Air Act and 18 U.S.C. 1001.

3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.

4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated represented of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plan) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is

located at a source of which they are not owners or operators or the designated representative.

7) Each violation of a provision of NDAC 33.1-15-21-08.1 through 33.1-15-21-10 and 40 CFR 72, 73, 74, 75, 76, and 77 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Federal Clean Air Act.

Applicable Requirements: NDAC 33.1-15-21-08.1 and NDAC 33.1-15-21-09, NDAC 33.1-15-21-10 and 40 CFR 72, 73, 74, 75, 76 and 77

H. **Effect on Other Authorities**: No provision of the Acid Rain Program, an Acid Rain permit application, this Acid Rain permit condition, or a written exemption under 40 CFR 72.7 or 72.8 shall be construed as:

1) Except as expressly provided in Title IV of the Federal Clean Air Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Federal Clean Air Act, including the provisions of Title I of the Federal Clean Air Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Federal Clean Air Act,

3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Applicable Requirements: NDAC 33.1-15-21-08.1 and NDAC 33.1-15-21-09

I. **Permit Shield**: Each affected unit operating in accordance with this permit which is issued in compliance with Title IV of the Federal Clean Air Act, as provided in as provided in NDAC 33.1-15-21-08.1, NDAC 33.1-15-21-09 and 40 CFR 73, 77 and 78, and the regulations implementing Section 407 of the Federal Clean Air Act, shall be deemed operating in compliance with the Acid Rain Program, except as provided in 40 CFR 72.9(g)(6). The permit shield does not take effect until the effective date of the acid rain permit.

Applicable Requirements: NDAC 33.1-15-21-08.1, NDAC 33.1-15-21-09 and 40 CFR 73, 77 and 78

J. **Reopening for Cause**: In addition to any reasons for reopening for cause previously stated in this permit, the Department will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances: If additional requirements, including excess emissions requirements, become applicable to an affected source under Title IV of the Federal Clean Air Act or the regulations promulgated there under. Upon approval by the administrator of the United States Environmental Protection Agency, excess emissions offset plans shall be deemed to be incorporated into the permit.

Applicable Requirements: NDAC 33.1-15-14-06.6.f (1)(b) and 40 CFR 70.7(f)(1)(ii)

10. **State Enforceable Only Conditions (not Federally enforceable)**:

A. **General Odor Restriction**: The permittee shall not discharge into the ambient air any objectionable odorous air contaminant which exceeds the limits established in NDAC 33.1-15-16.

Applicable Requirement: NDAC 33.1-15-16

Attachment A

Title V Permit to Operate No. AOP-28362
Compliance Assurance Monitoring (CAM) Plan
for EU Unit 1 and Unit 2
Particulate Matter Control

EU	EU Description	Air Pollution Control Equipment
Unit 1	2,622 x 10^6 Btu/hr coal-fired boiler	Electrostatic Precipitator (EP1)
Unit 2	5,130 x 10^6 Btu/hr coal-fired boiler	Two Electrostatic Precipitators (EP2)

LELAND OLDS STATION
Compliance Assurance Monitoring Plan
For Particle Mass Emissions Control
With Electrostatic Precipitator
January 8, 2019

I. Background

A. Emission Units: Utility Electric Steam Generators

Identification: Unit 1 Babcock and Wilcox Wall-Fired Boiler, 2,622 x 10^6 Btu/hr lignite coal-fired

Unit 2 Babcock and Wilcox Cyclone Boiler, 5,130 x 10^6 Btu/hr lignite coal-fired

Location: Stanton, North Dakota

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Regulations: NDAC 33.1-15, Permit to Construct (ACP-17248 v1.0), Permit to Operate (AOP-28362)

Emissions Limits:
Particulate Matter (PM): Unit 1 - 0.07 lb/10^6 Btu, 184 lb/hr
Unit 2 - 0.07 lb/10^6 Btu, 359 lb/hr

Monitoring Requirements: Compliance tests

C. Control Technology

Unit 1 – Electrostatic Precipitator (ESP)
Unit 2 – Electrostatic Precipitator (ESP)

II. Monitoring Approach

The key elements of the monitoring approach, including indicators to be monitored, indicator ranges, and performance criteria are presented in Table 1. The primary performance indicator is the opacity from the COMS on the stack of each unit.

III. Corrective Action

The key elements of the corrective action procedures are presented in Table 2. Corrective action is designed to discover and correct the problem that is creating the opacity increase. Corrective action is initiated before an excursion has occurred and continues until the potential excursion condition has been rectified. The trigger point that initiates corrective action is when the stack opacity is greater than 20 percent based on a one-hour average. Initiation of corrective action does not create a CAM reporting requirement.

Table 1. Monitoring Approach

Compliance Indicator – Stack Opacity	
I. Indicator Measurement Approach	The opacity is measured using a continuous opacity monitoring system (COMS) at the stack of each boiler.
II. Indicator Range	An excursion is defined as a measured stack opacity greater than 20 percent, based on a 3-hour rolling average. Opacity data for potential excursions during startup, shutdown and malfunction are reported in quarterly excess emissions reports.
III. Performance Criteria A. Representative Data	Opacity is related to the size and concentration of particles in the flue gas. As particulate mass emissions increase, it can be reasonably expected that stack opacity will also increase. The boilers discharge to one common stack with separate liners that are each equipped with a COMS meeting the installation and minimum acceptable accuracy requirements of 40 CFR 60, Appendix B, and Performance Specification 1. Each COMS is located downstream of the ESP and reflects the performance of the control device.
B. Verification of Operational Status	Not applicable. Monitoring approach uses existing equipment.
C. QA/QC Practices and Criteria	Daily zero and calibration drift check, periodic cleaning of optical surfaces and other periodic QA/QC checks as specified in the applicable version of Specification 1.
D. Monitoring Freq.	Continuous
Data Collection	The COMS collects a data point every 10 seconds and the data logger reduces the data, in addition to 6-minutes averages, to 1-hour and 3-hour averages.
Averaging Period	3-hour average for excursions; 1-hour for corrective action.

Table 2: Corrective Action Procedures Summary

	Description
I. Initiation of Corrective Action Procedures	Corrective action shall be initiated when a 1-hour opacity average exceeds 20 percent. The plant staff that makes the discovery shall immediately notify the shift team leader and plant environmental coordinator.
II. Time of Completion of Correction Action Procedures	As soon as practically possible.
III. Corrective Action Description	Since the ESPs provide the bulk of the PM emission removal, corrective action will focus on ESP operation. Corrective action will begin with an inspection of the COMS. Plant staff should verify the opacity monitor readings, to the extent possible, in the event of a COMS malfunction. If it is determined that the opacity monitor readings are not accurate, plant staff must correct the COMS deficiency as soon as possible. If it is determined that the COMS readings are accurate, then plant staff must focus on the condition of the ESP. Corrective action will include inspection of the ESP including an evaluation of the ash removal and rappel systems. Corrective action may also include one or more of the following to reduce opacity below the trigger level: (1) Return tripped ESP sections to service (2) Increase power levels on any remaining in-service sections if possible. (3) Reduce unit load (if absolutely necessary)

MONITORING APPROACH JUSTIFICATION

I. Background

A. The QA/QC plan for the COMS was submitted to the State and EPA during the initial startup period, and approved in January 1995. The QA/QC program is strictly followed and the instrument technicians have been trained in accordance with the systems, rules and regulations. The COMS is monitored for accuracy and availability 24 hours a day, 365 days per year, and if a COMS fails, personnel are notified immediately to repair the device. After the monitor repair is complete, all the necessary checks are performed to ensure proper operation. The COMS is checked every three years using certified neutral density filters.

B. The COMS are the latest technology and are environmentally protected in an air conditioned enclosure which houses the COMS and associated hardware. These monitors have been in service, and upgraded as necessary since the issuing of the Title V operating permit. All of the records for the maintenance and the monitored data are on file in the Environmental Coordinator's office. The monitors have historically performed extremely well with very high availability. There have not been any trends of increases in emissions nor have there been any serious or extended problems with

compliance. Therefore, the methods that are described in this CAM plan have proven very effective in keeping these units in compliance with all permit requirements listed in the Title V operating permit. The units have been tested using EPA methods for PM emissions frequently and the results have shown that the units operate well within the allowable pound per hour and pound per million Btu limits even at opacity values approaching 20 percent. The testing conducted at the Leland Olds Station for developing this CAM plan clearly demonstrates this correlation; see the attached graphs for each unit.

II. Rationale for Selection of Performance Indicators and Indicator Ranges

The purpose of this section is to provide technical justification in support of a compliance assurance protocol based on opacity known as "test and cap." Under a test and cap approach, the relationship of stack opacity to PM mass concentration is determined at or very near the opacity limit. If the mass concentration is below the permit limit, then two opacity trigger points are set at this level. The first trigger point is the threshold at which corrective action is to be performed and indicates that the control device may not be operating properly and action should be taken to restore normal operation. The second trigger point is set at the opacity limit but has a longer averaging period and causes a reportable event under CAM.

The COMS will be used as the primary indicator for each unit at the Leland Old Station. The selected indicator range will be the existing stack opacity limit of 20 percent. Corrective action will be initiated when the stack opacity exceeds that limit, based on a one-hour average. As described in Table 2, corrective action begins with an evaluation of the occurrence to determine the action required to correct the situation. One-hour opacity averages that initiate corrective action do not have to be reported for CAM purposes. An excursion is defined as a 3-hour opacity average of 20 percent or higher and will be documented and reported to the Department of Environmental Quality on a unit basis, including the associated corrective action, on the semi-annual monitoring report.

Opacity Monitor Theory of Operation. All opacity monitors operate under a physics principle known as optical extinction. In a basic configuration, a beam of light of a specific wavelength is transmitted across a particulate-laden fluid flow. A receiver at some distance from the transmitter measures the amount of light that is received. Due to reflection and refraction of the light beam by the particles within the fluid, the amount of light reaching the receiver will be less than the initial intensity of the beam. This proper is referred to as transmittance (T). Opacity is related to transmittance by the following equation: $O = 1 - T$.

The physics of the opacity meter, and the electrical circuitry therein converts reduced intensity of the light beam to an opacity value expressed as a percent.

For a coal-fired boiler equipped with an ESP operating under normal load, the particle size distribution and specific surface area of the particles will remain relatively similar. The result is that a change in opacity will indicate a proportional change in the PM mass concentration. While opacity is not a direct means of measuring PM mass, it can be used as a surrogate. If opacity is increasing, it can be reasonably expected that the PM mass concentration is increasing as well.

Opacity and CAM. Developing an accurate correlation between opacity and the PM mass is difficult, due to the variability in the process factors that affect the particle properties and size distribution. However, for CAM it is sufficient that the indicator and emission rate are related so as to provide a reasonable assurance of compliance. The use of opacity as a CAM indicator for PM mass, with the existing opacity limit as the

indicator range, is considered acceptable provided there are sufficient data to show that this indicator range is appropriate.

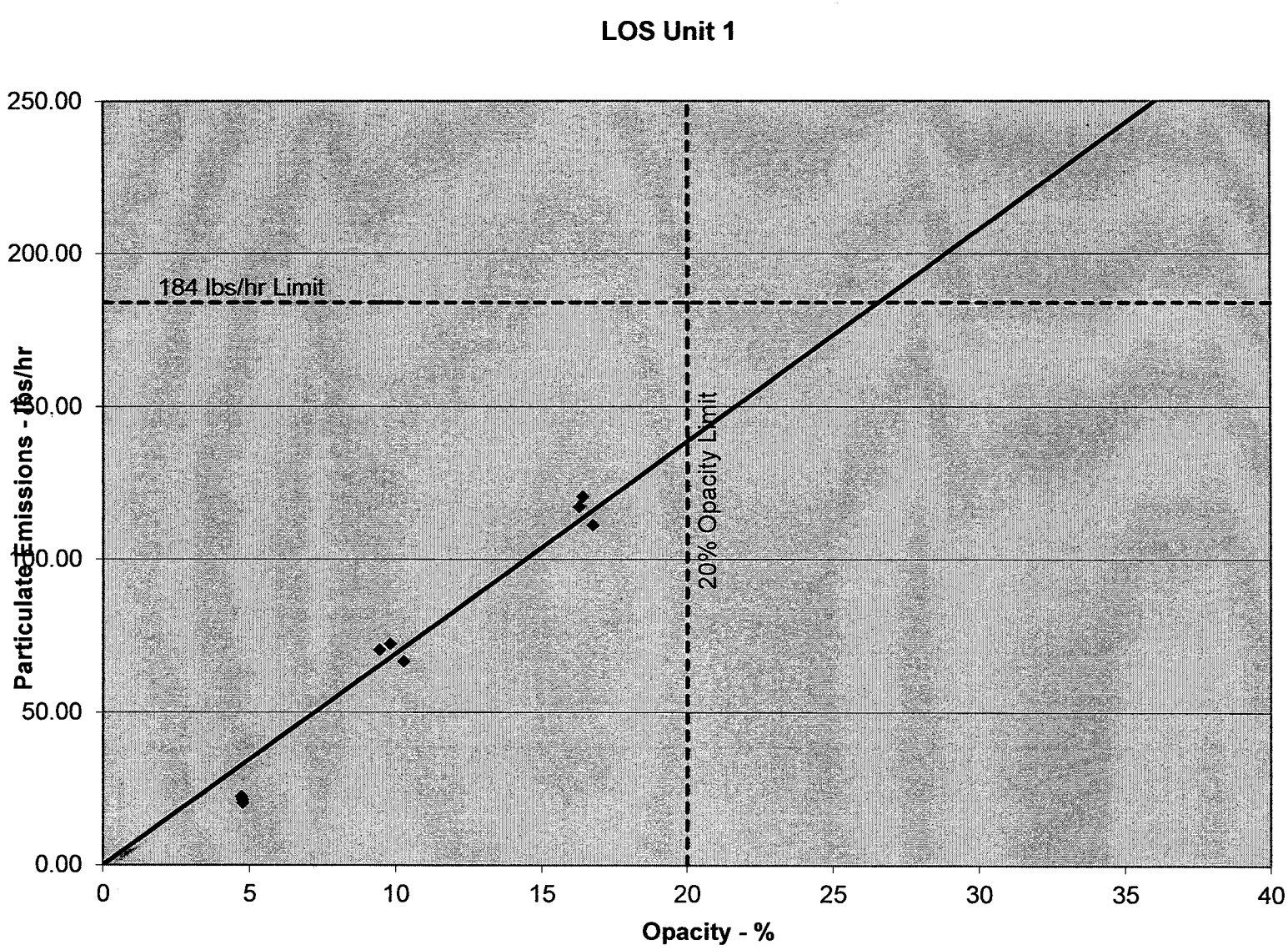
Verification of Opacity/Mass Relationships. PM mass emissions tests were conducted at the stack of each unit to validate the selection of the monitoring approach and indicator range. The objective of the testing was to derive the opacity/mass relationship for each unit and show that while opacity is maintained at or below the current opacity limit, both units also demonstrate a reasonable assurance of compliance with the PM mass limits. Testing was conducted on Units 1 and 2 during the period August 12-18, 2003. Additional details on the results of the testing are in GE Mostardi Platt Report M220011A dated September 2, 2003.

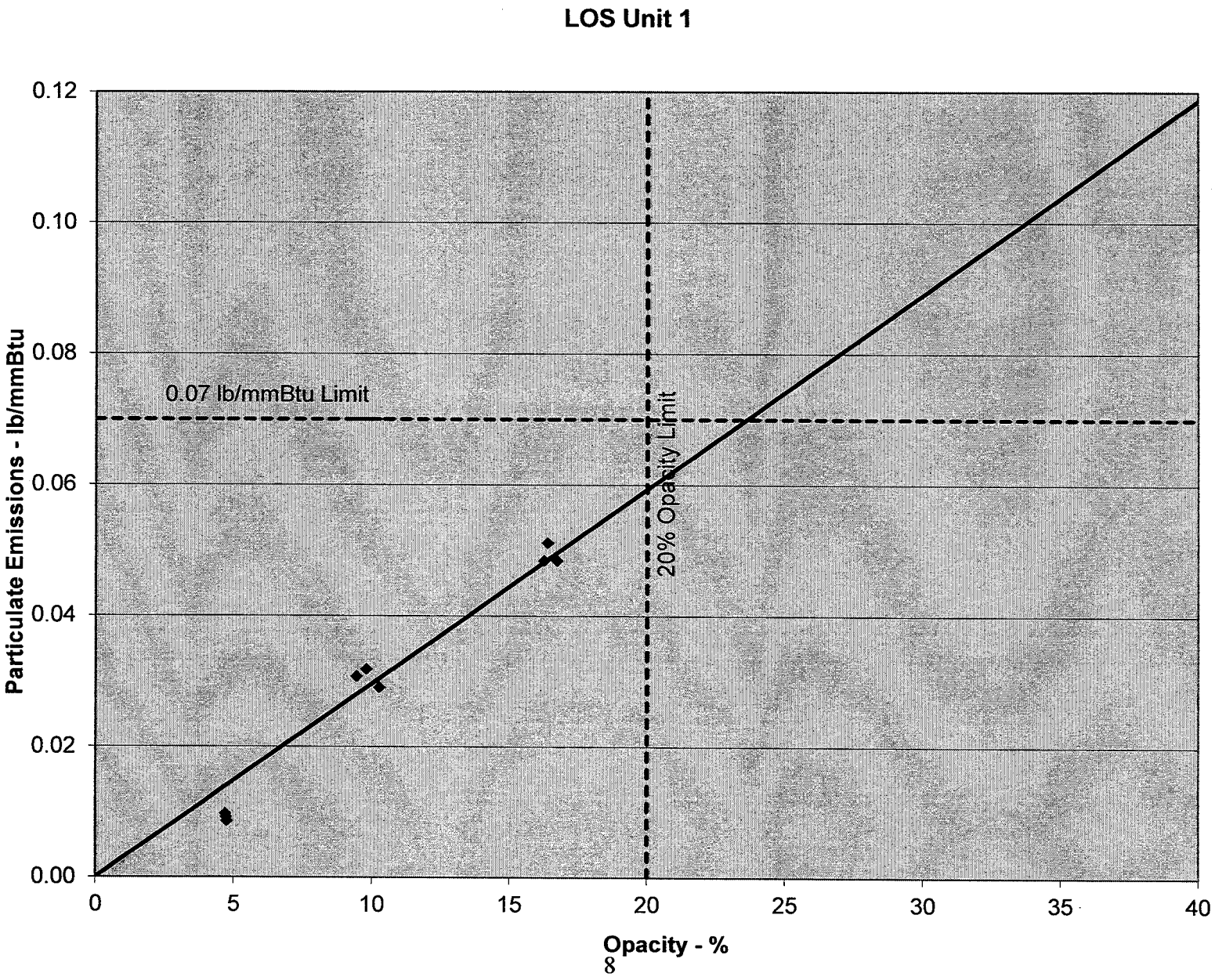
The test program was designed to simulate boiler and control device operation under the normal operating condition and under two additional conditions that simulated varying degrees of control device failure. Since the ESPs are the primary PM control devices for both units and the most likely cause of any excursions, tests simulating control device failures were conducted only for the ESPs. Any change in stack opacity and PM mass emissions is attributed to the operation of the ESPs.

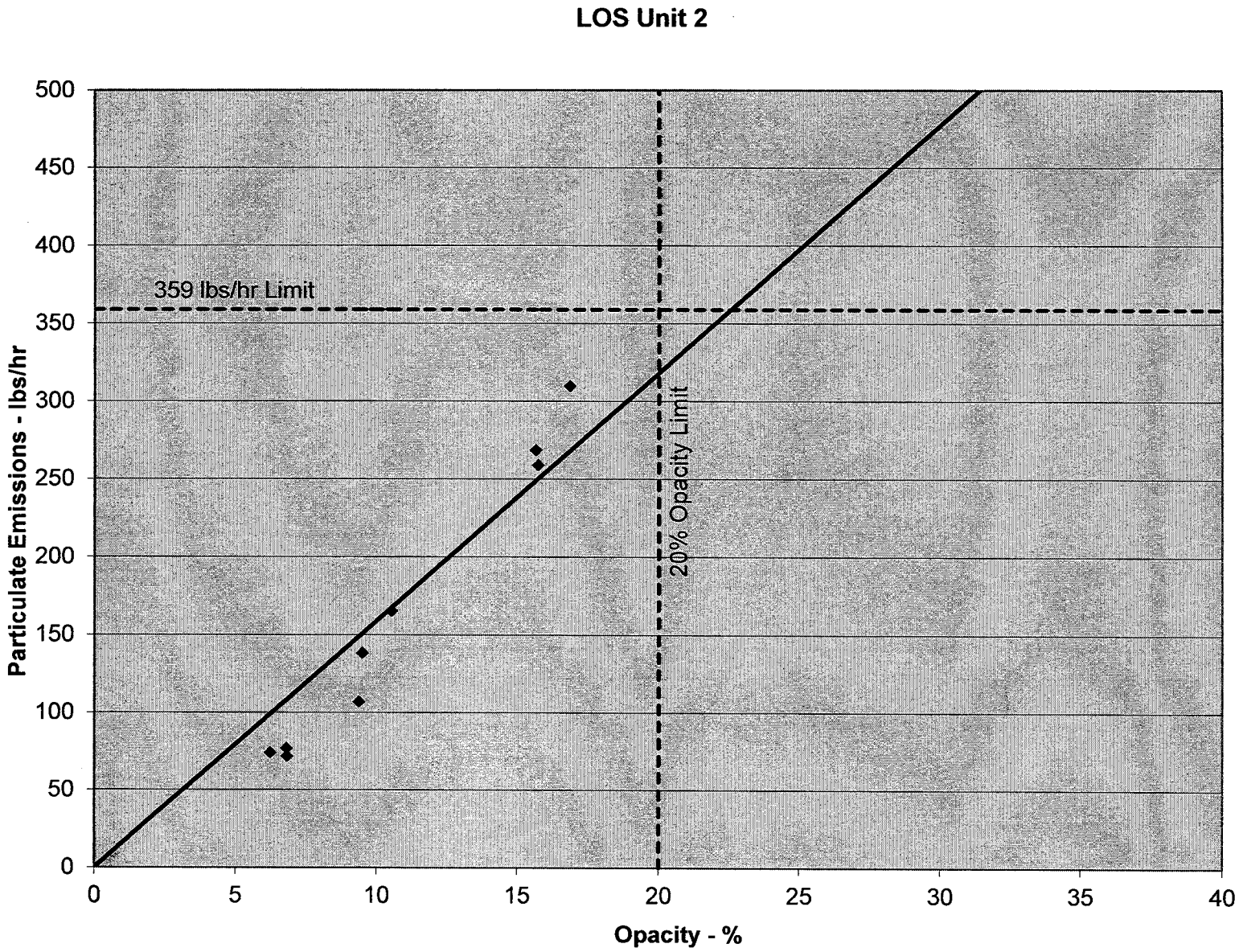
The most common types of ESP failure, or cause of reduced performance, are either grounded fields or close clearances. In order to simulate these conditions, the ESP of the tested unit was "de-tuned" by reducing and/or eliminating power to selected portions of the ESP. This effectively increases the PM mass loading and opacity at the stack. In addition to testing at a normal operating level with the ESP operating at design efficiency, the "de-tuned" tests included a "high-level" test where the opacity was close to, but less than the 20 percent limit, and a "mid-level" test where the stack opacity was about halfway between the high-level test and the normal operating level test opacities.

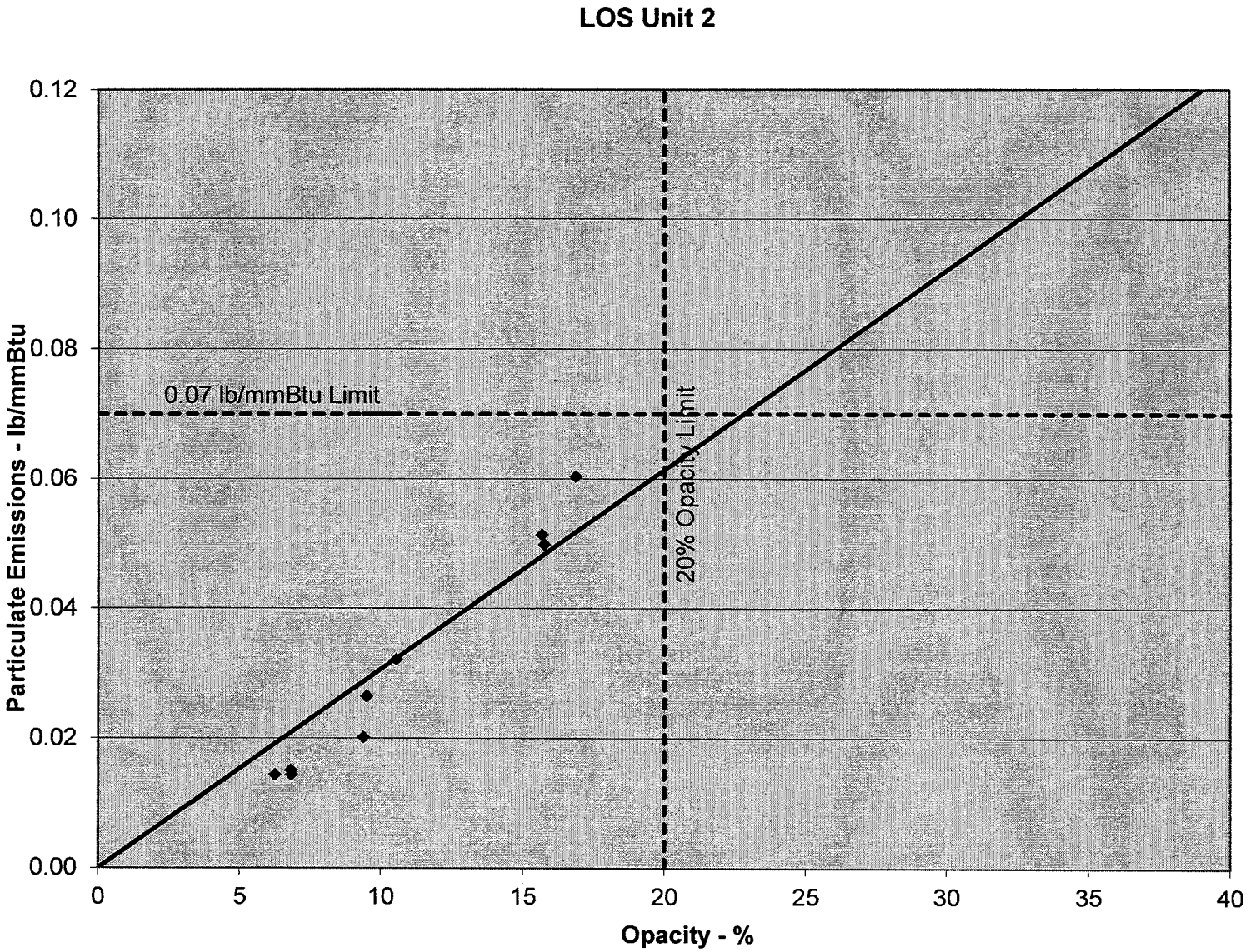
The boilers were operated at normal full load for each test. This scenario represents the highest level of PM mass emissions and will produce conservative indicator ranges under the CAM monitoring approach.

Monitoring Approach Validity. The attached charts showing opacity and PM mass relationships are based on the detailed data in the GE Mostardi Platt report mentioned earlier. The test data show that the opacity/mass relationships support the test and cap approach using the COMS as the primary indicator with a trigger level of 20 percent for both corrective action and excursions. In all cases, the opacity/mass relationships predicted mass emissions that were below the mass limits of each unit at 20 percent opacity. This suggests that the selected indicator and indicator range meet the general design criteria outlined in §64.3(a) of the CAM Rule and will be sufficient to demonstrate a reasonable assurance of compliance during normal operation of each unit.


LOS Unit 1
250.00
200.00
150.00
100.00
50.00
0.00
184 lbs/hr Limit
20% Opacity Limit
Particulate Emissions - lbs/hr
0
5
10
15
20
25
30
35
40
Opacity - %


LOS Unit 1
0.12
0.10
0.08
0.06
0.04
0.02
0.00
Particulate Emissions - lb/mmBtu
0.07 lb/mmBtu Limit
20% Opacity Limit
0
5
10
15
20
25
30
35
40
Opacity - %


LOS Unit 2
Particulate Emissions - lbs/hr
500
450
400
350
300
250
200
150
100
50
0
359 lbs/hr Limit
20% Opacity Limit
0
5
10
15
20
25
30
35
40
Opacity - %


LOS Unit 2
Particulate Emissions - lb/mmBtu
0.12
0.10
0.08
0.06
0.04
0.02
0.00
0.07 lb/mmBtu Limit
20% Opacity Limit
0
5
10
15
20
25
30
35
40
Opacity - %

Attachment B

Title V Permit to Operate No. AOP-28362
Compliance Assurance Monitoring (CAM) Plan
for EU M2 through M10 and M15
Particulate Matter/Opacity Control

EU	EU Description	Air Pollution Control Equipment
M2	Reclaim tunnel surge chute building	Rotoclone (EP M2)
M3	Crusher house (east)	Rotoclone (EP M3)
M4	Crusher house (west)	Rotoclone (EP M4)
M5	Transfer tower	Rotoclone (EP M5)
M6	Unit 1 bunker house transfer conveyors	Rotoclone (EP M6)
M7	Unit 2 east bunker loading conveyor	Rotoclone (EP M7)
M8	Unit 2 west bunker loading conveyor	Rotoclone (EP M8)
M9	Unit 2 bunker house transfer conveyor 2B2 (west)	Rotoclone (EP M9)
M10	Unit 2 bunker house transfer conveyor 2B3 (east)	Rotoclone (EP M10)
M15	Unit 1 coal bunkers	Rotoclone (EP M15)

LELAND OLDS STATION
Compliance Assurance Monitoring Plan
SOURCE ID # M2 thru M10 and M15
December 2, 2013

I. Emission Being Controlled: Particulate

A. Emissions Unit: Common to Coal Handling

Description: Rotoclone Dust Collector

Identification: M2	Location: Reclaim Tunnel Surge Chute	Design Emission Rate: 1.00 lb/hr
Identification: M3	Location: Crusher House East	Design Emission Rate: 1.00 lb/hr
Identification: M4	Location: Crusher House West	Design Emission Rate: 1.00 lb/hr
Identification: M5	Location: Transfer Tower	Design Emission Rate: 1.00 lb/hr
Identification: M6	Location: Unit 1 Bunker House	Design Emission Rate: 1.00 lb/hr
Identification: M7	Location: Unit 2 East Bunker	Design Emission Rate: 1.00 lb/hr
Identification: M8	Location: Unit 2 West Bunker	Design Emission Rate: 1.00 lb/hr
Identification: M9	Location: Unit 2 Conveyor 2B2	Design Emission Rate: 1.00 lb/hr
Identification: M10	Location: Unit 2 Conveyor 2B3	Design Emission Rate: 1.00 lb/hr
Identification: M15	Location: Unit 1 Coal Bunkers	Design Emission Rate: 1.00 lb/hr

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F73004
Emission Limit: 20 Percent Opacity
Monitoring Requirements: Visible emissions, periodic monitoring (Method 9 if required).

C. Control Technology

Rotoclone operated under negative pressure.

II. Monitoring Methods:

A. Compliance indicators:

Compliance will be determined by visible emissions. The indicator for any maintenance activity will be the occurrence of any visible emissions.

B. Monitoring Frequency:

Visible emissions monitoring will be conducted daily by plant workers. If any emissions are detected the plant worker will notify the appropriate maintenance personnel to have the control device repaired. An Environmental Coordinator, who is a certified method 9 reader will provide a weekly visual observation and record of the device; reference Section IV., Part B. This record will be stored in the Environmental Coordinator's office.

C. QA/QC (Quality Assurance and Quality Control) Plan:

The QA/QC plan for the control device will follow the manufacturer's recommendations for routine maintenance and checks. Anytime any device has maintenance performed outside the routine QA/QC plan a method 9 test will be performed immediately after putting the control device back in service.

D. If the device has two excursions within one six months reporting period the state will be notified and the control device will be shut down until the problem is positively identified and corrected.

III. Justification for Selected Monitoring Methods:

A. The rotoclone has been monitored using visual monitoring since the issuing of the Title V operating permit. All the records for the maintenance and the monitoring are on file in the Environmental Coordinator's office. There has not been any indication of emission problems with this control device. There have not been any trends of increases in emissions nor has there been any serious maintenance problems. Therefore, the methods that are described in this CAM plan have proven to be very effective in keeping this unit in compliance with all the permit requirements listed in the Title V operating permit.

B. Visible emissions was selected as the performance indicator. The rationale for the selection of the performance indicator is based on the operating principles of the rotoclone and the need to comply with the particulate emission standard. Any increase in emission will indicate a reduction of performance by the control device and will therefore be used as the indicator.

IV. Record Keeping and Reporting Methods:

A. All maintenance records will be stored in the Environmental Coordinator's office and available for inspection. These records will include the appropriate identification of the device, description of maintenance activity, date and the person providing the service.

B. The weekly observation results will be recorded and stored in the Environmental Coordinator's office.

C. A report to the North Dakota Environmental Quality Department will be prepared every 6 months to comply with the semiannual and annual reporting structure.

Attachment C
Title V Permit to Operate No. AOP-28362
Compliance Assurance Monitoring (CAM) Plan
for EU M11 and M12
Particulate Matter/Opacity Control

EU	EU Description	Air Pollution Control Equipment
M11	Main fly ash silo	Baghouse (EP M11)
M12	100 ton fly ash silo	Baghouse (EP M12)

LELAND OLDS STATION
Compliance Assurance Monitoring Plan
SOURCE ID # M11 AND M12
May 2, 2006

I. Emission Being Controlled: Particulate

A. Emissions Unit: Common to Fly Ash System

Description: Fabric Filter Dust Collector

Identification: M11	Location: Main Fly Ash Silo	Design Emission Rate: 0.26 lb/hr
Identification: M12	Location: 100 Ton Fly Ash Silo	Design Emission Rate: 0.1 lb/hr

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F73004
Emission Limit: 20 Percent Opacity
Monitoring Requirements: Visible emissions, periodic monitoring (Method 9 if required).

C. Control Technology

Bag house operated under negative pressure.

II. Monitoring Methods:

A. Compliance indicators:

Compliance will be determined by visible emissions. The indicator for any maintenance activity will be the occurrence of any visible emissions.

B. Monitoring Frequency:

Visible emissions monitoring will be conducted daily by plant workers. If any emissions are detected the plant worker will notify the appropriate maintenance personnel to have the control device repaired. An Environmental Coordinator, who is a certified method 9 reader will provide a weekly visual observation and record of the device; reference Section IV., Part B. This record will be stored in the Environmental Coordinator's office.

C. QA/QC (Quality Assurance and Quality Control) Plan:

The QA/QC plan for the control device will follow the manufacturer's recommendations for routine maintenance and checks. Anytime any device has maintenance performed outside the routine QA/QC plan a method 9 test will be performed immediately after putting the control device back in service.

D. If the device has two excursions within a six month reporting period the state will be notified and the control device will be shut down until the problem is positively identified and corrected.

III. Justification for Selected Monitoring Methods:

A. The fabric filter baghouse has been monitored using visual monitoring since the issuing of the Title V operating permit. All the records for the maintenance and the monitoring are on file in the Environmental Coordinator's office. There has not been any indication of emission problems with this control device. There have not been any trends of increases in emissions nor has there been any serious maintenance problems. Therefore, the methods that are described in this CAM plan have proven to be very effective in keeping this unit in compliance with all the permit requirements listed in the Title V operating permit.

B. Visible emissions was selected as the performance indicator. The rationale for the selection of the performance indicator is based on the operating principles of the bag house and the need to comply with the particulate emission standard. Any increase in emission will indicate a reduction of performance by the control device and will therefore be used as the indicator.

IV. Record Keeping and Reporting Methods:

A. All maintenance records will be stored in the Environmental Coordinator's office and available for inspection. These records will include the appropriate identification of the device, description of maintenance activity, date and the person providing the service.

B. The weekly observation results will be recorded and stored in the Environmental Coordinator's office.

C. A report to the North Dakota Environmental Quality Department will be prepared every 6 months to comply with the semiannual and annual reporting structure.

Attachment D
Title V Permit to Operate No. AOP-28362
Compliance Assurance Monitoring (CAM) Plan
for EU M13, M14 and M16
Particulate Matter/Opacity Control

EU	EU Description	Air Pollution Control Equipment
M13	Agglomerator	Baghouse (EP M13)
M14	Unit 1 coal bunkers	Baghouse (EP M14)
M16	Coal unloading silo	Baghouse (EP M16)

LELAND OLDS STATION
Compliance Assurance Monitoring Plan
SOURCE ID # M13, M14 AND M16
May 2, 2006

I. Emission being Controlled: Particulate

A. Emissions Unit: Common to Coal Handling and Unloading System

Description: Fabric Filter Dust Collector

Identification: M13	Location: Coal Load Out Facility	Design Emission Rate: 16.97 lb/hr
Identification: M14	Location: Agglomerator	Design Emission Rate: 0.06 lb/hr
Identification: M16	Location: Coal Unloading Silo	Design Emission Rate: 0.26 lb/hr

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F73004
Emission Limit: 20 Percent Opacity
Monitoring Requirements: Visible emissions, periodic monitoring (Method 9 if required).

C. Control Technology

Bag house operated under negative pressure.

II. Monitoring Methods:

A. Compliance indicators:

Compliance will be determined by visible emissions. The indicator for any maintenance activity will be the occurrence of any visible emissions.

B. Monitoring Frequency:

Visible emissions monitoring will be conducted daily by plant workers. If any emissions are detected the plant worker will notify the appropriate maintenance personnel to have the control device repaired. The monitored data record will be stored in the Environmental Coordinator's office.

C. QA/QC (Quality Assurance and Quality Control) Plan:

The QA/QC plan for the control device will follow the manufacturer's recommendations for routine maintenance and checks. Anytime any device has maintenance performed outside the routine QA/QC plan a method 9 test will be performed immediately after putting the control device back in service.

D. If the device has two excursions within a six month reporting period the state will be notified and the control device will be shut down until the problem is positively identified and corrected.

III. Justification for Selected Monitoring Methods:

A. The fabric filter baghouse has been monitored using visual monitoring since the issuing of the Title V operating permit. All the records for the maintenance and the monitoring are on file in the Environmental Coordinator's office. There has not been any indication of emission problems with this control device. There have not been any trends of increases in emissions nor has there been any serious maintenance problems. Therefore, the methods that are described in this CAM plan have proven to be very effective in keeping this unit in compliance with all the permit requirements listed in the Title V operating permit.

B. Visible emissions was selected as the performance indicator. The rationale for the selection of the performance indicator is based on the operating principles of the bag house and the need to comply with the particulate emission standard. Any increase in emission will indicate a reduction of performance by the control device and will therefore be used as the indicator.

IV. Record Keeping and Reporting Methods:

A. All maintenance records will be stored in the Environmental Coordinator's office and available for inspection. These records will include the appropriate identification of the device, description of maintenance activity, date and the person providing the service.

B. A report to the North Dakota Environmental Quality Department will be prepared every 6 months to comply with the semiannual and annual reporting structure.

Basin Electric Power Cooperative (BEPC)
Leland Olds Station
Title V Permit to Operate No. AOP-28362 v6.0
Statement of Basis
(12/13/23)

Facility Background: The Leland Olds Station (LOS) is a coal-fired electrical power generating facility consisting of two units. Unit 1 is a Babcock and Wilcox pulverized, wall-fired boiler with a nominal heat input capacity of 2,622 x 10^6 Btu/hr (216 MWe). The boiler was retrofitted in 1991 with low NO_x burners. Particulate matter is controlled by an electrostatic precipitator with a control efficiency of 99.5%. A wet scrubber began operation in 2013 for control of SO_2. Unit 2 is a Babcock and Wilcox pulverized coal, cyclone-fired boiler with a nominal heat input of 5,130 x 10^6 Btu/hr (440 MWe). Two electrostatic precipitators control the particulate matter emissions of Unit 2. A wet scrubber began operation in 2012 for control of SO_2. Selective noncatalytic reduction (SNCR) and post-combustion sorbent injection were added to both units (EU Unit1 and Unit 2) in 2015 and 2016, respectively. The flue gas from Units 1 and 2 is emitted through one common stack with separate liners 600 feet above grade. Cooling is accomplished using nearby river water.

The construction of Unit 1 at the Leland Olds Station began in the late 1960s and Unit 2 construction began in early 1971. Operations of the first boiler began in late 1965 and a conditional Permit to Operate (PTO) No. 730004 was issued on June 18, 1973, along with compliance schedules for the installation of electrostatic precipitators for both units in order to comply with the ambient air quality standards. Unit 2 began operations in 1975 and on April 11, 1977, PTO No. 730004 was issued for both units at the facility. The PTO was amended the next month to require the facility to install equipment to continuously monitor opacity by September 30, 1978. The PTO was then renewed on April 11, 1980, April 11, 1983, May 8, 1987, and again on March 12, 1990.

Chronology (not all-inclusive):

PTC, 10/26/1990, construction of a temporary coal unloading facility.

January 24, 1992 - application received for the installation of a permanent coal rail uploading and handling facility. An air quality effects analysis was completed and concluded that a PTC was not necessary because the construction of the equipment would result in lower emissions from the LOS.

PTC, June 25, 1993, flyash handling and truck loadout facility

PTO renewal issued February 28, 1995

December 9, 1997 – PTO revision to change the heat input on both of the boilers, which was listed incorrectly. This change also altered the emission limits on the equipment at the facility.

December 19, 1997 - Phase II Acid Rain Permit No. T4-F73004 was issued and then amended on July 27, 1998. Also on this date, the initial Title V PTO No. T5-F73004 was issued to the facility.

PTO AOP-28362 v2.0 (T5-F73004, Renewal No. 1, Revision No. 0), issued April 27, 2004. The Acid Rain Permit was incorporated into the Title V PTO as provisions instead of a separate permit.

March 5, 2007 – Letter from BEPC stated that the installation of two wet scrubbers was being planned (SO_2 emissions reduction). A PTC was not required for this project because emissions from the facility will be reduced.

PTO AOP-28362 v3.0 (T5-F73004, Renewal No. 2, Revision No. 0), issued May 6, 2009

ACP-17248 v1.0 (PTC10004) issued February 23, 2010, documented Regional Haze requirements.

PTO AOP-28362 v4.0 (T5-F73004, Renewal No. 3, Revision No. 0), issued March 27, 2014

April 2015 - Post-combustion sorbent injection was completed to comply with MATS regulations.

June 2016 – SNCR Regional Haze project was completed.

AOP-28362 v5.0 (PTO T5-F73004, Renewal No. 4, Revision No. 0), issued May 15, 2019

Current Action: On October 17, 2023, the Department received a timely permit application through CERIS-ND from BEPC for renewal of the Leland Olds Station Title V Permit No. AOP-28362. The draft, renewal permit changes are administrative in nature and include, but are not limited to updated insignificant/fugitive emission sources, updated standard text and formatting and updated applicable requirements information.

The Department proposes to issue Title V Permit to Operate No. AOP-28362 v6.0 after the required 30-day public comment period and subsequent 45-day EPA review period. This statement of basis summarizes the relevant information considered during this renewal of the Title V permit. The legal basis for each permit condition is stated in the draft permit under the heading of "Applicable Requirement."

Applicable Programs/As-Needed Topics:

1. **Title V.** The facility is considered a major source under NDAC 33.1-15-14-06 (40 CFR 70) due to potential emissions of PM_{10}, SO_2, NO_x, CO and VOC above 100 tons per year, and Hazardous Air Pollutant (HAP) emissions (hydrogen chloride and hydrogen fluoride) above 10 tons per year.

2. **New Source Performance Standards (NSPS).** The following NDAC 33.1-15-12-03 and 40 CFR 60 subparts apply to the facility.

   Subpart A, General Provisions, applies to all source units to which another NSPS subpart applies.

   Subpart Y, Standards of Performance for Coal Preparation Plants (coal handling constructed after October 24, 1974: EU M13, M14 and M16).

3. **National Emission Standards for Hazardous Air Pollutants (NESHAP).** No NDAC 33.1-15-13 and 40 CFR 61 subparts apply to the facility, with the possible exception of Subpart M (National Emission Standard for Asbestos), which may apply during facility modifications involving asbestos.

4. **NESHAP/Maximum Achievable Control Technology (MACT).** The following NDAC 33.1-15-22-03 and 40 CFR 63 subparts apply to the facility, which is a major source of HAP emissions.

   Subpart A, General Provisions, applies to all source units to which another MACT subpart applies.

   Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, applies to the engine (EU Emergency Fire Pump Engine).

   Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters applies to the auxiliary boiler (EU Auxiliary Boiler) because it is an oil-fired, industrial boiler located at a major source of hazardous air pollutants. The auxiliary boiler is considered a *limited-use* boiler under this subpart because the draft renewal permit limits the boiler to no more than 876 hours per calendar year for an average annual capacity factor of no more than 10 percent.

   Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units (EU Unit 1 and Unit 2).

5. **Acid Rain.** NDAC 33.1-15-21 and 40 CFR 72, 73, 75 and 76 apply to the facility since it is an existing electric utility steam generating plant rated at greater than 25 MWe.

6. **Prevention of Significant Deterioration (PSD).** The facility is a major source under NDAC 33.1-15-15 (40 CFR 52.21) because it is a fossil-fuel fired steam electric plant with a heat input of more than 250 million Btu per hour that has the potential to emit more than 100 tons per year of a criteria pollutant. There are no changes contained in this draft permit that increase potential emissions by a PSD-significant amount. Therefore, this permit is not subject to PSD review.

7. **BACT.** Since there are no changes contained in this permit renewal that increase potential emissions by a PSD-significant amount, a BACT review is not required for this draft permit.

8. **Gap Filling.** Although the permit does contain gap filling for testing, monitoring or recordkeeping not otherwise required by rule, this draft renewal permit does not contain significant revisions to previously permitted gap filling, monitoring and recordkeeping. The gap filling conditions are generally identified by the applicable requirement NDAC 33.1-15-14-06.5.a(3)(a).

9. **Streamlining Decisions.** Not applicable because no streamlining is involved with this draft permit.

10. **Compliance Assurance Monitoring (CAM).** CAM applies to the electrostatic precipitators for Unit 1 and 2 [Emission Points (EP) 1 and EP 2], the rotoclones for the coal handling system units (EP M1 through M10 and M15), and the baghouses for the coal handling system units (EP M11 through M14 and M16).

11. **Permit Shield.** This permit contains a permit shield with respect to the Acid Rain program.

12. **New Conditions/Limits.** There are no new conditions or limits in this draft permit. Specific changes in the draft are addressed in the "Permit Changes by Section" discussed below.

13. **40 CFR 98 - Mandatory Greenhouse Gas Reporting.** This rule requires sources above certain emission thresholds to calculate monitor and report greenhouse gas emissions. According to the definition of "applicable requirement" in 40 CFR 70.2, neither Subpart 98 nor Clean Air Act Section 307(d)(1)(V), the CAA authority under which Subpart 98 was promulgated, are listed as applicable requirements for the purpose of Title V permitting. Although the rule is not an applicable requirement under 40 CFR 70, the source is not relieved from the requirement to comply with the rule separately from compliance with their Part 70 operating permit. It is the responsibility of each source to determine applicability to the subpart and to comply, if necessary.

Permit Changes by Section:

Note: Administrative changes were made to some sections of the permit to update to the current North Dakota (ND) format and to correct errors. In addition, the Permit to Operate number and references to Permit to Construct numbers have been updated to accommodate the Air Quality database (CERIS-ND). These changes may not be specifically addressed below.

Cover: Permit Number, permit renewal, permit revision and expiration date were all updated.

Table of Contents: Page numbers and condition headings were updated.

1. **Emission Unit Identification**: Applicable subparts were added to the table for units subject to subpart requirements. The refined coal equipment, EU M18 (insignificant emission source) was deleted from the table since it has been removed from LOS. The CEMS/COMS/CMS requirements were updated.

2. **Applicable Standards, Restrictions and Miscellaneous Conditions** (previously Condition No. 3): The fuel restrictions were added to this section and the formatting was updated.

3. **Emission Unit Limits** (previously Condition No. 4): PTC10004 references were updated to ACP-17248 v1.0 and Condition 2.B. references were updated to Condition 2.A.2 in the table. The refined coal equipment, EU M18 opacity limit was deleted from the table. Condition 3.B formatting was updated and Condition 3.C. for the fugitive emissions opacity limit was added.

4. **Monitoring Requirements and Conditions** (previously Condition No. 5): PTC10004 references were updated to ACP-17248 v1.0 and Condition Number references were updated in the table. The monitoring text Condition Number references were updated and the formatting was revised. The hours monitoring for the emergency engine and the visual emissions monitoring was updated to ND standard text.

5. **Recordkeeping Requirements** (previously Condition No. 6): PTC10004 references were updated to ACP-17248 v1.0 and Condition Number references were updated in the text. Applicable standard references were updated.

6. **Reporting** (previously Condition No. 7): Conditions 6.D, E and G were revised to reflect the current ND reporting conditions.

7. **Facility Wide Operating Conditions** (previously Condition No. 8): The Noncompliance Due to an Emergency condition (7.H) was removed per EPA's Affirmative Defense Provision Rule effective 8/21/23 and to reflect the current ND standard facility wide operating conditions. All subsequent condition lettering designation was updated.

8. **General Conditions** (previously Condition No. 9): Condition 8.E was revised to reflect the current ND general conditions.

9. **Phase II Acid Rain Provisions** (previously Condition No. 10): No changes.

10. **State Enforceable Only Conditions (not Federally enforceable)** (previously Condition No. 11): No changes.

Attachments A through D (CAM): No changes.

Comments/Recommendations: It is recommended that Title V Permit to Operate No. AOP-28362 v6.0 be processed and considered for issuance following a 30-day public comment period and a subsequent 45-day EPA review period.