Table of Contents

Table of Contents	1
Air Title V Operating Permit (AOP) - Renewal	2
(Submission #: HPY-SAXG-9Q4P0, version 1)	2
Details	2
Form Input	2
Form Instructions	2
Section A - Permit Information	2
Section B (Part 1) - Facility Information	3
Section B (Part 2) - Additional Location Information	4
Section C - Nature of Business	4
Section D - Process Equipment Information (1 of 1)	4
Emission Unit -	4
Section F - Facility-Wide Applicable Regulations and Potential to Emit (PTE)	5
Section G - Compliance Schedule	6
Section H - Flexible Permits	6
Section I - Compliance Assurance Monitoring (CAM)	6
Section J - Title IV - Acid Rain	6
Section K - Redline Permit Upload	6
Section L - General Document Upload	7
Attachments	7
Status History	7
Agreements and Signature(s)	8

Air Title V Operating Permit (AOP) -Renewal

version 2.5

(Submission #: HPY-SAXG-9Q4P0, version 1)

Details

Submission ID HPY-SAXG-9Q4P0

Status In Process

Form Input

Form Instructions

In accordance with 33.1-15-14-04.c. of the North Dakota Air Pollution Control Rules, a Title V permit renewal application must be submitted to the Department at least six months, but no more than eighteen months, prior to the expiration date. Permit renewal applications are incomplete unless all information requested in SFN 52824 is supplied. The current Title V permit will be the baseline reference for a renewal. The requirements (40 CFR 70.5(c) & NDAC 33.1-15-14-06.4.c) to include a citation and description of all applicable requirements and a description of or reference to any applicable test method for determining compliance with each applicable requirement may be met by accomplishing either or both of the following: 1) provide an annotated (red-lined) copy of the current permit indicating all changes needed to reflect the current facility configuration, applicable requirements and test methods; 2) provide a narrative that conveys all changes needed to the current permit to reflect the current facility configuration, all applicable requirements and test methods.

FOR ACID RAIN UNITS ONLY Submit with the Title V permit renewal application all Acid Rain renewal applications (the Acid Rain Permit Application, the Phase II NOx Compliance Plan, and if applicable, the Phase II NOx Averaging Plan).

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Section A - Permit Information

Permit Number AOP-28373

Permit Version 5

Issue Date 06/26/2019

Expiration Date 05/25/2024

Permittee

Company Name Basin Electric Power Cooperative

Address

1717 East Interstate Avenue Bismarck, ND 58503-0564 United States

Responsible Official

Prefix NONE PROVIDED

First NameLast NameTroyTweeten

Title

Senior Vice President of Operations

Phone Type Number Extension

Business 7012230441

Email ttweeten@bepc.com

Address

1717 East Interstate Avenue Bismarck, ND 58503 United States

Contact Person for Air Pollution Matters

Prefix NONE PROVIDED

First NameLast NameErinFox Dukart

Title Director, Environmental Services

Phone Type Number Extension

Business 7015575557

Email edukart@bepc.com

Address

1717 East Interstate Avenue Bismarck, ND 58503 United States

Section B (Part 1) - Facility Information

Facility Name

Basin Electric Power Cooperative - Antelope Valley Station (AVS)

Have you added, removed, or made any modifications to equipment since your last operating permit issuance? No

Is this source subject to Title IV Acid Rain regulations? Yes

Is this a portable source? No

Facility Location

294 County Road 15 Beulah, ND 58523 United States

County

Mercer

294 County Road 15, Beulah, ND

Section B (Part 2) - Additional Location Information

Legal Description of Facility Site

Qtr Qtr	Qtr	Section	Township	Range
NONE PROVIDED	SW	24	145N	88W

Land area at facility site (indicate whether measurement is in acres or sq. ft.) NONE PROVIDED

MSL elevation at facility

NONE PROVIDED

Section C - Nature of Business

General Nature of Business

Describe Nature of Business	NAICS Code	SIC Code
Electric Generation	221112	4911-Electric Services

Actual Start of Construction Date NONE PROVIDED

Actual End of Construction Date NONE PROVIDED

Facility Startup Date

Section D - Process Equipment Information (1 of 1)

Emission Unit -

Emission Unit ID NONE PROVIDED

Emission Unit Description NONE PROVIDED

Emission Point ID NONE PROVIDED

Emission Point Description NONE PROVIDED

Emission Process Description NONE PROVIDED

Emission Unit Status NONE PROVIDED

Applicable PTCs

PTC Number

Applicable Federal Air Programs

Program Code
Acid Rain Deposition Control (CAA Title IV)
MACT Standards (40 CFR Part 63)
New Source Performance Standards
Title V Permits

NSPS Air Program Subparts

Subpart

Subpart

Subpart A - GENERAL PROVISIONS

MACT Air Program Subparts

Subpart A - GENERAL PROVISIONS

Subpart ZZZZ - STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (RICE)

Subpart DDDDD - MAJOR SOURCES: INDUSTRIAL/COMMERCIAL/INSTITUTIONAL BOILERS & PROCESS HEATER

Subpart UUUUU - COAL & OIL-FIRED EUSGU'S

Applicable State Regulations

Regulation

Emission Unit form

Download the emission unit form linked here, complete it, and upload it to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application. <u>EMISSION UNIT FOR TITLE V PERMIT TO OPERATE (SFN61006)</u>

Attach Emission Unit Form

NONE PROVIDED Comment NONE PROVIDED

Section F - Facility-Wide Applicable Regulations and Potential to Emit (PTE)

Applicable Federal Air Programs

Program Code

Applicable State Regulations

Regulation

Potential to Emit (PTE)

Pollutant	Tons Per Year Without Fugitives	Tons Per Year With Fugitives
NOx	NONE PROVIDED	NONE PROVIDED
СО	NONE PROVIDED	NONE PROVIDED
VOCs	NONE PROVIDED	NONE PROVIDED
SO2	NONE PROVIDED	NONE PROVIDED
PM	NONE PROVIDED	NONE PROVIDED
PM10	NONE PROVIDED	NONE PROVIDED
PM2.5	NONE PROVIDED	NONE PROVIDED
Total HAPs	NONE PROVIDED	NONE PROVIDED

Emission Calculations Document Upload

Using the attachment control below, upload emission calculations documents.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attach Emission Calculations Documents NONE PROVIDED

Comment NONE PROVIDED

Section G - Compliance Schedule

Will your facility be in compliance with all applicable requirements effective at the time of permit issuance? Yes

Will your facility be in compliance with all applicable requirements effective after the time of permit issuance? Yes

Section H - Flexible Permits

Are you requesting a flexible permit? No

Section I - Compliance Assurance Monitoring (CAM)

To determine if your facility is subject to CAM, review the information provided at the following link. <u>Compliance Assurance Monitoring (CAM) Guidance</u>

Is the facility identified in this application in compliance with applicable monitoring and compliance certification requirements?

Yes, the facility IS in compliance with applicable monitoring and compliance certification requirements.

Section J - Title IV - Acid Rain

Download the applicable EPA Acid Rain form(s) linked here, complete, and upload to this application using the attachment control below.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload sections of the online application. <u>EPA Acid Rain Application</u>

Attach completed Acid Rain form(s) here

acid_rain_permit_application_final_Signed.pdf - 10/31/2023 01:50 PM Comment NONE PROVIDED

Section K - Redline Permit Upload

Use the attachment control below to upload a redline version of your existing permit document, showing any changes.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attach redline version of permit here

<u>T5F86003_4_0_BEPC.docx - 10/30/2023 10:43 AM</u> Comment NONE PROVIDED

Section L - General Document Upload

File Upload

Use the attachment control below to upload any other information necessary for application review, such as plot plans, process diagrams, maps, etc.

When completing the online application, if uploaded files are provided in each section (when indicated), do not include those same files in the General Document Upload/File Upload section. If uploading the application files in the General Document Upload/File Upload section, only fill out the required (asterisked) sections of the online application.

Attachments

<u>SFN52824_Title V Renewal Application_signed.pdf - 10/31/2023 01:54 PM</u> Comment NONE PROVIDED

Additional Forms

Attachments

Date	Attachment Name	Context	User
10/31/2023 1:54 PM	SFN52824_Title V Renewal Application_signed.pdf	Attachment	Erin Fox Dukart
10/31/2023 1:50 PM	acid_rain_permit_application_final_Signed.pdf	Attachment	Erin Fox Dukart
10/30/2023 10:43 AM	T5F86003_4_0_BEPC.docx	Attachment	Erin Fox Dukart

Status History

	User	Processing Status
10/30/2023 9:49:12 AM	Erin Fox Dukart	Draft
10/31/2023 4:24:15 PM	Troy Tweeten	Signing
10/31/2023 4:24:16 PM	Troy Tweeten	Submitting
10/31/2023 4:25:49 PM	Troy Tweeten	Submitted
10/31/2023 4:25:52 PM	Troy Tweeten	In Process

SUBMISSION AGREEMENTS

- I am the owner of the account used to perform the electronic submission and signature.
- I have the authority to submit the data on behalf of the facility I am representing.
- I agree that providing the account credentials to sign the submission document constitutes an electronic signature equivalent to my written signature.
- ✓ I have reviewed the electronic form being submitted in its entirety, and agree to the validity and accuracy of the information contained within it to the best of my knowledge.

I certify under penalty of lawthat the enclosed documents and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I also certify that the source(s) identified in this application is/are in compliance with all applicable requirements except those requirements for which a compliance schedule has been submitted in the Compliance Schedule Form or Compliance Schedule Section of the application NDAC 33.1-15-14-06.1.e. The source will any term of a comply with the current applicable requirements with which it is in compliance. The source will meet, on a timely basis, any applicable requirement, which becomes effective during the permit term. The source is properly implementing any required risk management plan in accordance with section 112(r) of the federal clean air act, if appropriate.

I certify, as the Responsible Official, that I have read and understood the above requirements and conditions applicable to my source/facility and that the information and attachments provided in this application are true, accurate, and complete to the best of my knowledge." Further, I agree to comply with the provisions of Chapter 23.1-06 of the North Dakota Century Code and all rules and regulations of the Department, or revisions thereof. I also understand a permit is nontransferable and, if granted a permit, I will promptly notify the Department upon sale or legal transfer of this permitted establishment.

Note: This certification must be signed by a "responsible official" as defined in NDAC 33.1-15-14-06.1.

Signed By Troy Tweeten on 10/31/2023 at 4:24 PM



TITLE V PERMIT TO OPERATE - RENEWAL APPLICATION

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF AIR QUALITY SFN 52824 (9-2021)

In accordance with 33.1-15-14-04.c. of the North Dakota Air Pollution Control Rules, a Title V permit renewal application must be submitted to the Department at least six months, but no more than eighteen months, prior to the expiration date. Permit renewal applications are incomplete unless all information requested herein is supplied. The current Title V permit will be the baseline reference for this renewal. The requirements (40 CFR 70.5(c) & NDAC 33.1-15-14-06.4.c) to include a citation and description of all applicable requirements and a description of or reference to any applicable test method for determining compliance with each applicable requirement may be met by accomplishing either or both of the following: 1) enclose an annotated (red-lined) copy of the current permit indicating all changes needed to reflect the current facility configuration, applicable requirements and test methods; 2) enclose a narrative that conveys all changes needed to the current permit to reflect the current facility configuration, all applicable requirements and test methods.

FOR ACID RAIN UNITS ONLY – Submit with the Title V permit renewal application all Acid Rain renewal applications (the Acid Rain Permit Application, the Phase II NO_x Compliance Plan, and if applicable, the Phase II NO_x Averaging Plan).

PART 1. GENERAL APPLICATION INFORMATION

Owner's Name Basin Electric Power Cooperative	
Facility Name Antelope Valley Station	
Name of Person Completing Application Erin Fox Dukart	Phone (701) 557-5557
Title Director, Environmental Services	edukart@bepc.com
Current Operating Permit Number T5-F86003	
Expiration Date of Current Operating Permit 05 / 25	/ 2024

PART 2. COMPLIANCE CERTIFICATION

A. Schedule for Submission of Compliance Certifications During the Term of the Permit

Frequency of Submittal	Date Beginning (month/day/year)
Annual	01/01/2024

B. Statement of Compliance with Compliance Assurance Monitoring (CAM) and Compliance Certification Requirements

The facility identified in this application is in compliance with applicable monitoring and compliance certification requirements.

Yes

- No Describe below which requirements are not being met:
- CAM not applicable

C. Certification of Compliance with all Applicable Requirements

This certification must be signed by a "responsible official" as defined in NDAC 33.1-15-14-06.1. Forms without a signed certification will be returned as incomplete.

Except for requirements identified in Compliance Schedule and Plan (Section G) of Title V Permit to Operate application forms for which compliance is not achieved, I hereby certify that, based on information and belief formed after reasonable inquiry, the air contaminant source identified in this form is in compliance with all applicable requirements.

Signed	Date 10/31/2023
Typed Name Troy Tweeten	

PART 3. STATUS OF SOURCE

Has there been any change to the source since the most recent initial or renewal permit application, minor permit modification, significant modification or administrative permit amendment?

🖸 No 🖾 Yes

If yes, complete and submit appropriate sections of Title V Permit to Operate application forms.

PART 4. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Note: This certification must be signed by a "responsible official" as defined in NDAC 33.1-15-14-06.1. Applications without a signed certification will be returned as incomplete.

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete.

Name (typed) Troy Tweeten		
(Signed) Any dweiten	_{Date} <u>10</u> / <u>31</u>	2023
Telephone Number (701) 223-0441		

Send original renewal application to:

North Dakota Department of Environmental Quality Division of Air Quality 4201 Normandy Street, 2nd Floor Bismarck, ND 58503-1324 (701)328-5188 Send copy of renewal application to:

Air Program (8P-AR) Office of Partnerships & Regulatory Assistance US EPA Region 8 1595 Wynkoop Street Denver, CO 80202-1129



United States Environmental Protection Agency Acid Rain Program

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: 🔲 new 🔲 revised 🔳 for ARP permit renewal

STEP 1			
Identify the facility name, State, and plant (ORIS) code.	Antelope Valley Station Facility (Source) Name	State ND	Plant Code 6469

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

a	b
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)
1	Yes
2	Yes
	Yes

Facility (Source) Name (from STEP 1) Antelope Valley Station

STEP 3 Permit Requirements

Read the standard requirements.

- (1) The designated representative of each affected source and each affected unit at the source shall: () Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR
 - part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
 Submit in a timely manner any supplemental information that the permitting authority 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:
- Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
 - (i) Have an Acid Rain Permit.

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 part 75.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, 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 part 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 Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each affected unit at the sourceshall:
 - Hold allowances, as of the allowance transfer deadline, in the source's compliance account (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 affected units at the source; and
 - (ii) 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 Act.
- (3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) 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, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Facility (Source) Name (from STEP 1) Antelope Valley Station

STEP 3, Cont'd. Excess Emissions Requirements

- (1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part77.
- (2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
 - Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (i) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

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 or permitting authority:
 - (i) 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;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
 - (iv) 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 part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an 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 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 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 representative 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.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 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 Act.

Facility (Source) Name (from STEP 1) Antelope Valley Station

STEP 3, Cont'd. Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the 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 Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the 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.

STEP 4 Certification

Read the certification statement, sign, and date. I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Troy Tweeten	
Signature has tweeten	_{Date} 10/31/2023

AIR POLLUTION CONTROL TITLE V PERMIT TO OPERATE

Permittee:	Permit Number:
Name:	T5-F86003
Basin Electric Power Cooperative	
Address: 1717 E Interstate Avenue Bismarck, ND 58503-0564	Source Name: Antelope Valley Station
Source Location:	Source Type:
S24, T145N, R88W	Electric Generating Units; Coal
294 County Road 15	
Beulah, ND 58523	
Mercer County	
Expiration Date:	

May 25, 2024

Pursuant to Chapter 23.1-06 of the North Dakota Century Code, 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 No. 4: <u>6/26/19</u> Revision No. 0: _____

James L. Semerad Director Division of Air Quality

Antelope Valley Station Title V Permit to Operate Table of Contents

<u>Condi</u>	tion	<u>Page No.</u>
1.	Emission Unit Identification	3
2.	Fuel Restrictions	5
3.	Applicable Standard and Miscellaneous Conditions	6
4.	Emission Unit Limits	8
5.	Monitoring Requirements and Conditions	12
6.	Recordkeeping Requirements	17
7.	Reporting	20
8.	Facility Wide Operating Conditions	22
9.	General Conditions	28
10.	Phase II Acid Rain Provisions	34
11.	State Enforceable Only Conditions (not Federally enforceable)	40
Attacl	nment A - Compliance Assurance Monitoring (CAM) Plan - EU Unit 1 and Unit 2	
Attacl	nment B - Compliance Assurance Monitoring (CAM) Plan - EU Dust Collectors 1A, 1B, 1C, 1D, 1E, 1K, 1H, 2A, 2B, 2C and 2D	
Attacl	nment C - Compliance Assurance Monitoring (CAM) Plan - EU Unit 1 Day Tank,	

Lime Unloading Building, Lime Silo and Unit 2 Day Tank

1. **Emission Unit Identification**:

The emission units regulated by this permit are as follows:

A. Point Sources:

	Emission	Emission	Air Pollution
Emission Unit Description	Unit (EU)	Point (EP)	Control Equipment
Combustion Engineering coal-fired	Unit 1	1	Dry Scrubber, Baghouse and
boiler with a nominal rated heat			Post-combustion Sorbent
input capacity of 6,275 x 10 ⁶ Btu/hr			Injection
Combustion Engineering coal-fired	Unit 2	2	Dry Scrubber, Baghouse and
boiler with a nominal rated heat			Post-combustion Sorbent
input capacity of 6,275 x 10 ⁶ Btu/hr			Injection
Zurn Energy auxiliary boiler with a	Auxiliary Boiler	3	None
nominal rated heat input capacity of			
137.7 x 10^6 Btu/hr and horizontally			
fired by natural gas or propane			
Diesel-fired emergency fire pump	Emergency Fire Pump	5	None
engine 4SLB, 219 hp (2013)	Engine ^A		
5.7 x 10 ⁶ Btu/hr natural gas-fired	Natural Gas Heater ^B	6	None
heater			
Coal handling system with emissions	from the following areas:		
South row silos	Dust Collector 1A	M1	Carter-Day, Model 376RF6
			Baghouse
North row silos	Dust Collector 1B	M2	Carter-Day, Model 376RF9
			Baghouse
South row transfer tower	Dust Collector 1C	M3	Carter-Day, Model 232RF7
			Baghouse
Plant transfer tower	Dust Collector 1D	M4	Carter-Day, Model 376RF6
			Baghouse
Plant conveyor loading chute	Dust Collector 1E	M5	Carter-Day, Model 376RF6
			Baghouse
Stackout conveyor loading chute	Dust Collector 1K	M6	Carter-Day, Model 376RF9
			Baghouse
Emergency stackout building	Dust Collector 1H	M7	Carter-Day, Model 376RF9
			Baghouse
Unit 2 south row coal silos	Dust Collector 2A	M8	Carter-Day, Model 376RF9
			Baghouse
Unit 2 north row coal silos	Dust Collector 2B	M9	Carter-Day, Model 376RF9
			Baghouse
Unit 2 south row transfer tower	Dust Collector 2C	M10	Carter-Day, Model 232RF9
			Baghouse
Unit 1 north row transfer tower	Dust Collector 2D	M11	Carter-Day, Model 232RF9
			Baghouse

Emission Unit Description	Emission Unit (EU)	Emission Point (EP)	Air Pollution Control Equipment					
Dry SO ₂ scrubber raw materials handling with emissions from the following areas:								
Unit 1 scrubber lime day tank	Unit 1 Day Tank	M12	Pulse flow Model PF24508- 49 Baghouse					
Lime unloading building	Lime Unloading Building	M13	Pulse flow Model PF6012- 260 Baghouse					
Lime silo	Lime Silo	M14	Pulse flow Model PR24508 Baghouse					
Unit 2 scrubber lime day tank	Unit 2 Day Tank	M15	Pulse flow Model PF24508- 49 Baghouse					
Water treatment facility with emission	ons from the following areas	:						
Primary water treatment	Primary Water Treatment ^B	M16	Mikro Pulsaire Model 8B Baghouse to control emissions from the bin vent					
Lime day Tank B - primary water treatment	Lime Day Tank B ^B	M17	Mikro Pulsaire Model 8B Baghouse to control emissions from the bin vent					
Lime day tank - Great Plains Coal Gasification Plant	Lime Day Tank -Great Plains ^B	M18	Mikro Pulsaire Model 8B Baghouse to control emissions from the bin vent					
Lime storage bin	Lime Bin 1 ^B	M19	Baghouse					
Lime storage bin	Lime Bin 2 ^B	M20	Baghouse					
Rail car coal loadout	Rail Car Coal Loadout	F3	Baghouse					
Other:								
Unit 1 Sorbent Injection Silo	Sorbent Injection Silo 1 ^B	M21	Bin Vent Filter					
Unit 2 Sorbent Injection Silo	Sorbent Injection Silo 2 ^B	M22	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 60, Subpart IIII and 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 subparts. There is no time limit on the use of emergency stationary RICE in emergency situations.

^B Insignificant or fugitive emission sources (no specific emission limit).

- B. Fugitive Emission Sources:
 - 1) 200,000 gpm cooling tower (Cooling Tower No. 1)
 - 2) 200,000 gpm cooling tower (Cooling Tower No. 2)
 - 3) Emergency stackout coal pile
 - 4) Dead coal storage pile
- C. EU Unit 1 and Unit 2 Continuous Emission Monitoring Systems (CEMS): The flue gas from EU Unit 1 and Unit 2 is emitted through separate 600-foot stacks. Each stack is equipped with the following continuous emission monitors:
 - 1) One sulfur dioxide continuous emission monitor
 - 2) One nitrogen oxides continuous emission monitor
 - 3) One carbon dioxide continuous emission monitor
 - 4) One sorbent trap monitoring system or one Hg CEMS
 - 5) One opacity monitor
 - 6) One flow monitor

2. **Fuel Restrictions**:

- A. EU Unit 1 and Unit 2 shall combust only lignite coal, subbituminous coal, No. 2 fuel oil, natural gas and tar oil. Used oil 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 33.1-24-05-689 Standards for the Management of Used Oil and other applicable rules, regulations, and ordinances.
- b) The annual emission inventory reports required by Condition 7.G shall include the amount of waste oil burned.

Applicable Requirements: NDAC 33.1-24-05 and NDAC 33.1-15-14-06.5.b(1)

B. The auxiliary boiler (EU Auxiliary Boiler) shall combust only natural gas containing no more than
 2 grains of sulfur per 100 standard cubic feet or commercial propane as defined by the Gas
 Processors Association.

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

C. The emergency fire pump engine (EU Emergency Fire Pump Engine), the permittee shall combust only distillate oil containing no more than 0.0015% sulfur by weight.

Applicable Requirement: NDAC 33.1-15-12-02, Subpart IIII

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)

3. Applicable Standards and Miscellaneous Conditions:

- A. 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 D Standards of Performance of Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1981 (EU Unit 1 and Unit 2).
 - Subpart Y Standards of Performance for Coal Preparation Plants (EU Dust Collectors 1A through 1E, 1K, 1H, 2A through 2D and Railcar Coal Loadout/EP M1 through M11 and F3).
 - 3) Subpart IIII (4I) Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (EU Emergency Fire Pump Engine).

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

- B. **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).
 - 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* relative to 40 CFR 63, Subpart DDDDD.

Applicable Requirements: 33.1-15-22-03, Subpart DDDDD and NDAC 33.1-15-14-06.5.b(1)

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

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

- C. 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 at 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)

4. **Emission Unit Limits**:

A. **Emission Limits**:

Emission Unit			Pollutant/	Emission	NDAC Applicable
Description	EU	EP	Parameter	Limit	Requirement
Combustion	Unit 1	1	PM	0.10 lb/10 ⁶ Btu ^A &	33.1-15-12, Subpart D &
Engineering boiler				210 lb/hr ^C	PTC 2/23/78
				0.02.11./1.06.D/ B	
			PM	$0.03 \text{ lb}/10^6 \text{ Btu}^{\text{B}}$	33.1-15-22, Subpart 5U
			(filterable)	(See Condition 5.B.8)	
			SO ₂ ^D	1.2 lb/10 ⁶ Btu ^E & 3,845 lb/hr ^F	33.1-15-12, Subpart D & PTC 2/23/78
			NOx	0.5 lb/10 ⁶ Btu ^G & 0.17 lb/10 ⁶ Btu ^B & 4,930 lb/hr ^F & See Cond. 10.D	PTC 2/23/78 & 33.1-15-25 & 40 CFR 52
			Hg	4.0 lb/10 ¹² Btu ^B or 0.04 lb/GWh ^B	33.1-15-22, Subpart 5U
			HC1	$\begin{array}{c} 0.002 \ \mathrm{lb}/\mathrm{10^6} \ \mathrm{Btu^B} \ \mathrm{or} \\ 0.02 \ \mathrm{lb}/\mathrm{MWh^B} \ \mathrm{or} \\ \mathrm{SO}_2 \ \mathrm{Surrogate}: \\ 0.2 \ \mathrm{lb}/\mathrm{10^6} \ \mathrm{Btu^B} \ \mathrm{or} \\ 1.2 \ \mathrm{lb}/\mathrm{MWh^B} \end{array}$	33.1-15-22, Subpart 5U
			Opacity	20% (See Cond. 4.B.1 & 4.B.2)	33.1-15-12, Subpart D

Page <u>9</u> of <u>40</u> Permit No. <u>T5-F86003</u>

Emission Unit			Pollutant/	Emission	NDAC Applicable
Description	EU	EP	Parameter	Limit	Requirement
Combustion	Unit 2	2	PM	$0.10 \text{ lb}/10^6 \text{ Btu}^{\text{A}}$ &	33.1-15-12, Subpart D &
Engineering boiler	Oline 2	2	1 1 1	210 lb/hr ^C	PTC 2/23/78
			PM (filterable)	0.03 lb/10 ⁶ Btu ^B (See Condition 5.B.8)	33.1-15-22, Subpart 5U
			SO ₂ ^D	1.2 lb/10 ⁶ Btu ^E & 3,845 lb/hr ^F	33.1-15-12, Subpart D & PTC 2/23/78
			NOx	0.5 lb/10 ⁶ Btu ^G & 0.17 lb/10 ⁶ Btu ^B & 4,930 lb/hr ^F & See Cond. 13.D	PTC 2/23/78 & 33.1-15-25 & 40 CFR 52
			Hg	4.0 lb/10 ¹² Btu ^B or 0.04 lb/GWh ^B	33.1-15-22, Subpart 5U
			HCl	$\begin{array}{c} 0.002 \ \mathrm{lb}/\mathrm{10^6} \ \mathrm{Btu^B} \ \mathrm{or} \\ 0.02 \ \mathrm{lb}/\mathrm{MWh^B} \ \mathrm{or} \\ \mathrm{SO}_2 \ \mathrm{Surrogate:} \\ 0.2 \ \mathrm{lb}/\mathrm{10^6} \ \mathrm{Btu^B} \ \mathrm{or} \\ 1.2 \ \mathrm{lb}/\mathrm{MWh^B} \end{array}$	33.1-15-22, Subpart 5U
			Opacity	20% (See Cond. 4.B.1 & 4.B.2)	33.1-15-12, Subpart D
Zurn Energy auxiliary	Auxiliary	3	SO_2	42.7 lb/hr ^C	PTC 2/23/78
boiler	Boiler		NO _x	20.1 lb/hr ^C	PTC 2/23/78
			Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02
			Operating Hours	876 hrs/yr	33.1-15-22, Subpart 5D & 33.1-15-14-06.5.b(1)
Diesel engine	Emergency Fire Pump	5	Opacity	20% (See Cond. 4.B.2)	33.1-15-03-01.2
	Engine		Operating Hours	See Cond. 1.A Footnote A	33.1-15-12, Subpart 4I & 33.1-15-22, Subpart 4Z
Natural gas-fired heater	Heater	6	Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02

Page <u>10</u> of <u>40</u> Permit No. <u>T5-F86003</u>

Emission Unit			Pollutant/	Emission	NDAC Applicable
Description	EU	EP	Parameter	Limit	Requirement
Coal handling system w					Nequilement
	-	-	_		
South row silos	Dust Collector 1A	M1	PM	1.97 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
North row silos	Dust Collector 1B	M2	PM	1.97 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
South row transfer tower	Dust Collector 1C	M3	PM	1.89 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Plant transfer tower	Dust Collector 1D	M4	PM	2.83 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Plant conveyor loading chute	Dust Collector 1E	M5	PM	3.26 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Stackout conveyor loading chute	Dust Collector 1K	M6	PM	3.26 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Emergency stackout building	Dust Collector 1H	M7	PM	2.23 lb/hr ^C	33.1-15-14-06.5.b(1)
C C			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Unit 2 south row coal silos	Dust Collector 2A	M8	PM	1.97 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Unit 2 north row coal silos	Dust Collector 2B	M9	PM	1.97 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Unit 2 south row transfer tower	Dust Collector 2C	M10	PM	1.89 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y
Unit 1 north row transfer tower	Dust Collector 2D	M11	PM	1.89 lb/hr ^C	33.1-15-14-06.5.b(1)
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y

Page <u>11</u> of <u>40</u> Permit No. <u>T5-F86003</u>

Emission Unit	Т	1	Pollutant/	Emission	NDAC Applicable				
		ED			NDAC Applicable				
Description	EU	EP	Parameter	Limit	Requirement				
	Dry SO ₂ scrubber raw materials handling with emissions from the following areas:								
Unit 1 scrubber lime day tank	Unit 1 Day Tank	M12	PM	0.21 lb/hr ^C	33.1-15-14-06.5.b(1)				
			Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				
Lime unloading building	Lime Unloading	M13	PM	0.58 lb/hr ^C	33.1-15-14-06.5.b(1)				
	Building		Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				
Lime silo	Lime Silo	M14	PM	0.42 lb/hr ^C	33.1-15-14-06.5.b(1)				
			Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				
Unit 2 scrubber lime day tank	Unit 2 Day Tank	M15	PM	0.21 lb/hr ^C	33.1-15-14-06.5.b(1)				
·			Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				
Rail car loadout	Rail Car Loadout	F3	PM	0.34 lb/hr ^C	33.1-15-14-06.5.b(1)				
			Opacity	<20% (See Cond. 4. B. 2 & 4.B.3)	33.1-15-12, Subpart Y				
Other:									
Unit 1 sorbent injection silo	Sorbent Injection Silo 1	M21	Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				
Unit 2 sorbent injection silo	Sorbent Injection Silo 2	M22	Opacity	20% (See Cond. 4.B.2)	33.1-15-03-02				

^A 1-hour average. This standard does not apply during startup, shutdown and malfunction.

^B 30-boiler operating day rolling average

C 1-hour average

^D The prorated standard for SO₂ emissions contained in 33.1-15-12, Subpart D is applicable when burning tar oil.

^E 3-hour rolling average. This standard does not apply during startup, shutdown and malfunction.

F 3-hour rolling average. The emission limit is the total allowed from Units 1 and 2 combined.

G 3-hour rolling average

- B. **Opacity Limits -** The following are the opacity limits referenced for the various emission units listed in Condition 4.A:
 - 1) Twenty percent, except that a maximum twenty-seven percent is permissible for not more than one six-minute period per hour. This standard does not apply during startup, shutdown and malfunction.

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

2) Twenty percent, except that a maximum of forty percent is permissible for not more than one six-minute period per hour. This standard applies at all times.

Applicable Requirement: NDAC 33.1-15-03-02

3) Twenty percent opacity or greater shall not be discharged into the atmosphere. This standard does not apply during startup, shutdown and malfunction.

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

5. Monitoring Requirements and Conditions:

A. **Requirements**:

Emission Unit		Pollutant/	Monitoring Requirement	Condition	NDAC Applicable
Description	EP	Parameter	(Method)	Number	Requirement
Combustion Engineering	1	PM/	O&M/Compliance	5.B.1, 5.B.7,	33.1-15-12
boiler		PM	Assurance	5.B.8 & 5.B.11	33.1-15-14-06.5.a(3)(a),
		(filterable)	Monitoring (CAM)		33.1-15-21 &
			& Emissions Test		33.1-15-22-03, Subpart 5U
		SO_2	O&M/CEMS	5.B.1, 5.B.3,	33.1-15-12, Subpart D &
				5.B.4 & 5.B.7	33.1-15-21
		NO _x	O&M/CEMS	5.B.1, 5.B.3,	33.1-15-14-06.5.a(3)(a),
				5.B.4, 5.B.7,	33.1-15-21 & 40 CFR 52
				5.B.13 & 5.B.14	
		CO_2	CEMS	5.B.1, 5.B.3 &	33.1-15-12, Subpart D &
				5.B.4	33.1-15-21
		Hg	CEMS or Sorbent	5.B.1, 5.B.3 &	33.1-15-22-03, Subpart 5U
			Trap Monitoring System	5.B.4	
		HCl	Emissions Test or	5.B.1 & 5.B.12	33.1-15-22-03, Subpart 5U
			SO ₂ CEMS		
				5.B.1, 5.B.2,	33.1-15-14-06.5.a(3)(a),
		Opacity	COMS	5.B.3 & 5.B.4	33.1-15-12, Subpart D &
					33.1-15-21
		Flow	Flow Monitor	5.B.1, 5.B.3 &	33.1-15-12, Subpart D &
				5.B.4	33.1-15-21

Page <u>13</u> of <u>40</u> Permit No. <u>T5-F86003</u>

			Monitoring		NDAC
Emission Unit		Pollutant/	Requirement	Condition	Applicable
Description	EP	Parameter	(Method)	Number	Requirement
Combustion Engineering	2	PM/	O&M/(CAM) &	5.B.1, 5.B.7,	33.1-15-12
boiler		PM	Emissions Test	5.B.8 & 5.B.11	33.1-15-14-06.5.a(3)(a),
		(filterable)			33.1-15-21 &
					33.1-15-22-03, Subpart 5U
		SO_2	O&M/CEMS	5.B.1, 5.B.3, 5.B.4 & 5.B.7	33.1-15-12, Subpart D & 33.1-15-21
		NO _x	O&M/CEMS	5.B.1, 5.B.3, 5.B.4, 5.B.7, 5.B.13 & 5.B.14	33.1-15-14-06.5.a(3)(a), 33.1-15-21 & 40 CFR 52
		CO ₂	CEMS	5.B.1, 5.B.3 & 5.B.4	33.1-15-12, Subpart D & 33.1-15-21
		Hg	CEMS or Sorbent Trap Monitoring System	5.B.1, 5.B.3 & 5.B.4	33.1-15-22-03, Subpart 5U
		HC1	Emissions Test or SO ₂ CEMS	5.B.1 & 5.B.12	33.1-15-22-03, Subpart 5U
				5.B.1, 5.B.2,	33.1-15-14-06.5.a(3)(a),
		Opacity	COMS	5.B.3 & 5.B.4	33.1-15-12, Subpart D & 33.1-15-21
		Flow	Flow Monitor	5.B.1, 5.B.3 & 5.B.4	33.1-15-12, Subpart D & 33.1-15-21
Zurn Energy auxiliary	3	SO_2	Recordkeeping	5.B.5	33.1-15-14-06.5.a(3)(a)
boiler		NO _x	Emissions Test	5.B.6	33.1-15-14-06.5.a(3)(a)
		Opacity	Recordkeeping	5.B.5	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	5.B.10	33.1-15-14-06.5.a(3)(a)
Diesel engine	5	Opacity	Recordkeeping	5.B.5	33.1-15-14-06.5.a(3)(a)
		Operating Hours	Recordkeeping	Cond.1.A Footnote A & 5.B.10	33.1-15-12, Subpart 4I & 33.1-15-22, Subpart 4Z
Natural gas-fired heater	6	Opacity	Recordkeeping	5.B.5	33.1-15-14-06.5.a(3)(a)
One coal handling system	with em	issions from th	e following areas:		
South row silos	M1	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
North row silos	M2	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10

Page <u>14</u> of <u>40</u> Permit No. <u>T5-F86003</u>

Emission Unit Description	EP	Pollutant/ Parameter	Monitoring Requirement (Method)	Condition Number	NDAC Applicable Requirement
South row transfer tower	M3	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Plant transfer tower	M4	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Plant conveyor loading chute	M5	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Stackout conveyor loading chute	M6	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Emergency stackout building	M7	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Unit 2 south row coal silos	M8	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Unit 2 north row coal silos	M9	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Unit 2 south row transfer tower	M10	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Unit 1 north row transfer tower	M11	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Dry SO ₂ scrubber raw ma	terials h	andling with er	nissions from the fol	lowing areas:	
Unit 1 scrubber lime day tank	M12	PM/Opacity	ČAM	5.B.11	33.1-15-14-06.10
Lime unloading building	M13	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Lime silo	M14	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Unit 2 scrubber lime day tank	M15	PM/Opacity	CAM	5.B.11	33.1-15-14-06.10
Rail car loadout	F3	PM/Opacity	O&M/Visible Emissions Observations (VEO)	5.B.7 & 5.B.9	33.1-15-14-06.5.a(3)(a)

B. Monitoring Conditions:

- 1) The 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). 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 and 40 CFR 60, Subpart A, §60.13, Monitoring Requirements.
 - c) NDAC 33.1-15-12 and 40 CFR 60, Subpart D, §60.45, Emission and Fuel Monitoring.

- d) NDAC 33.1-15-21-09, Monitoring Requirements.
- e) NDAC 33.1-15-22 and 40 CFR 63, Subpart A, §63.8, Monitoring Requirements.
- f) NDAC 33.1-15-22 and 40 CFR 63, Subpart UUUUU, §63.10020, Continuous Compliance Requirements
- 2) The permittee shall conduct performance evaluations of the continuous opacity monitoring system with quarterly performance audits and annual zero alignments in accordance with 40 CFR 60 Appendix F, Procedure 3. 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. Quarterly assessments may be reduced in frequency to semi-annual with four consecutive quarters of quality-assured data (40 CFR 60 Appendix F, Procedure 3, Section 2.0). The requirements of 40 CFR 60, Appendix F, Procedure 3 include daily calibration checks, quarterly performance audits and annual primary zero alignment under clear path conditions. The procedures of Section 8.1, paragraph (3)(ii) Calibration Check of 40 CFR 60, Appendix B, Performance Specification Check of 40 CFR 60, Appendix B, Performance Specification Check of 40 CFR 60, Appendix B, Performance audits and annual primary zero alignment under clear path conditions. 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.
- 3) The Department may require additional performance audits of each CEMS.
- 4) When a failure of a CEMS 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 (except as provided in 5.B.4.a). Timely repair of the emission monitoring system must be made.
 - a) Data reported to meet the requirements of the NO_x 30-boiler operating day rolling average shall not include data substituted using the missing data substitution procedures of Subpart D of 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.
- 5) For purposes of compliance monitoring, burning of fuels as outlined in Conditions 2.B and 2.C shall be considered credible evidence of compliance with any applicable opacity, particulate and SO₂ 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 of fuels as outlined in Conditions 4.2 and 2.C for evidence of compliance or noncompliance with any applicable opacity, particulate and SO₂ emission limit, in the event of enforcement action.
- 6) An emissions test shall be conducted to measure NO_x emissions when this unit has operated more than the limit use hours indicated in condition 3.B.2)a. The permittee or a designated representative shall conduct an emissions test to measure NO_x emissions, using at a minimum, a portable analyzer with quality assurance procedures equivalent to EPA Test Methods in 40 CFR 60, Appendix A, or quality assurance procedures approved in advance

by the Department. A test shall consist of three runs, with each run at least 20 minutes in length.

- 7) 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 on site and provide the Department with a copy when requested.
- 8) 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 5.B.8.b).

- a) 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.
- 9) At least once per week in which the emission unit is operated, a company representative (need not be certified) shall observe the emission point. If no visible emissions are observed, the date and time shall be recorded.

If visible emissions are observed, the permittee must investigate the problem within eight hours. Any problems that are discovered must be corrected as soon as possible. If the correction of the emissions is expected to take longer than 24 hours, the permittee shall follow procedures as outlined in Condition 8.G. Following corrective maintenance, a visible emissions observation shall be made.

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.

- 10) A log shall be kept of the hours of operation on a calendar year basis.
- 11) The permittee shall conduct the monitoring, recordkeeping and reporting as required by the applicable subparts of 40 CFR 64. Monitoring of the emission unit shall be conducted in accordance with the applicable Compliance Assurance Monitoring (CAM) Plan in Attachments A, B or C of this permit.

- 12) If not using SO₂ as a surrogate to demonstrate compliance with HCl limits, conduct HCl performance tests quarterly for unit's subject to 40 CFR 63, Subpart UUUUU. Provided that the permittee maintains LEE status for HCl under 40 CFR 63, Subpart UUUUU, the HCl stack tests required to satisfy LEE status are sufficient to demonstrate compliance with the permit requirements.
- 13) For any hour in which fuel is combusted in a unit, Basin Electric shall calculate the hourly average NO_x concentration in lb/MMBtu at the CEMS in accordance with the requirements of 40 CFR Part 75. At the end of each boiler operating day, the owner/operator shall calculate and record a new 30-day rolling average emission rate in lb/MMBtu from the arithmetic average of all valid hourly emission rates from the CEMS for the current boiler operating day and the previous 29 successive boiler operating days.
- 14) An hourly average NO_x emission rate in lb/MMBtu is valid only if the minimum number of data points, as specified in 40 CFR Part 75, is acquired by both the NO_x pollutant concentration monitor and the diluent monitor (O_2 or CO_2).

6. **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 unit load that existed at the time of sampling or measurement.
 - 7) The 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 shall be kept of all maintenance conducted on the emission units or air pollution control equipment.
 - 10) Records shall be kept as to the type of fuel usage.

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

Monitoring Records

Emission Unit Description	EP	Pollutant/ Parameter	Compliance Monitoring Record
Combustion Engineering boiler	1	PM/PM	O&M Data, CAM Data &
		(filterable)	Emissions Test Data
		SO_2	O&M Data and CEMS Data
		NO _x	O&M Data and CEMS Data
		CO ₂	CEMS Data
		Hg	CEMS Data or Sorbent Trap Monitoring System Data
		HC1	Emission Test Data or SO ₂ CEM Data
		Opacity	COMS Data
		Flow	Flow Monitor Data
Combustion Engineering boiler	2	PM/PM (filterable)	O&M Data, CAM Data & Emissions Test Data
		SO_2	O&M Data and CEMS Data
		NO _x	O&M Data and CEMS Data
		CO ₂	CEMS Data
		Hg	CEMS Data or Sorbent Trap Monitoring System Data
		HC1	Emission Test Data or SO ₂ CEM Data
		Opacity	COMS Data
		Flow	Flow Monitor Data

Page <u>19</u> of <u>40</u> Permit No. <u>T5-F86003</u>

		Pollutant/	Compliance				
Emission Unit Description	EP	Parameter	Monitoring Record				
Zurn Energy auxiliary boiler	3	SO ₂	Type of Fuel Usage				
		NO _x	Emissions Test Data				
		Opacity	Type of Fuel Usage				
		Operating Hours	Hours of Operation Data				
Diesel engine	5	Opacity	Type of Fuel Usage				
		Operating Hours	Hours of Operation Data				
	Coal handling system with emissions from the following areas:						
South row silos	M1	PM/Opacity	CAM Data				
North row silos	M2	PM/Opacity	CAM Data				
South row transfer tower	M3	PM/Opacity	CAM Data				
Plant transfer tower	M4	PM/Opacity	CAM Data				
Plant conveyor loading chute	M5	PM/Opacity	CAM Data				
Stackout conveyor loading chute	M6	PM/Opacity	CAM Data				
Emergency stackout building	M7	PM/Opacity	CAM Data				
Unit 2 south row coal silos	M8	PM/Opacity	CAM Data				
Unit 2 north row coal silos	M9	PM/Opacity	CAM Data				
Unit 2 south row transfer tower	M10	PM/Opacity	CAM Data				
Unit 1 north row transfer tower	M11	PM/Opacity	CAM Data				
Dry SO ₂ scrubber raw materials handling with emissions from the following areas:							
Unit 1 scrubber lime day tank	M12	PM/Opacity	CAM Data				
Lime unloading building	M13	PM/Opacity	CAM Data				
Lime silo	M14	PM/Opacity	CAM Data				
Unit 2 scrubber lime day tank	M15	PM/Opacity	CAM Data				
Rail car loadout	F3	PM/Opacity	O&M/VEO Data				

- B. In addition to requirements outlined in Condition 6.A, recordkeeping for EUs Unit 1, Unit 2, Dust Collectors 1.A through 1.E, 1.K, 1.H, 2.A through 2.D, Unit 1 Day Tank, Lime Unloading Building, Lime Silo, Unit 2 Day Tank and Rail Car Loadout shall be in accordance with the following applicable requirements of Chapters 33.1-15-06, 33.1-15-12, 33.1-15-21 and 33.1-15-22 of the North Dakota Air Pollution Control Rules (NDAC), as applicable:
 - 1) NDAC 33.1-15-06-05, Reporting and Recordkeeping Requirements.
 - 2) NDAC 33.1-15-12 and 40 CFR 60, Subpart A, §60.7, Notification and Recordkeeping and Subpart Y, §60.258, Reporting and Recordkeeping.
 - 3) NDAC 33.1-15-14 and 40 CFR 64, §64.9 Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

- 4) NDAC 33.1-15-21-09, 40 CFR 72 and 40 CFR 75 Recordkeeping Requirements.
- 5) NDAC 33.1-15-22 and 40 CFR 63, Subpart UUUUU, §63.10032 and §63.10033, Notification, Reports and Records.

Applicable Requirements: NDAC 33.1-15-06, NDAC 33.1-15-12, NDAC 33.1-15-21, NDAC 33.1-15-22, 40 CFR 72, 40 CFR 75

C. 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

Recordkeeping for emission units subject to Compliance Assurance Monitoring (CAM) 40 CFR 64 shall be in accordance with 40 CFR 64, §64.9 - Reporting and Recordkeeping Requirements, Paragraph (b) General Recordkeeping Requirements.

Applicable Requirement: NDAC 33.1-15-14-06.10 (40 CFR 64)

E. 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]

7. **Reporting**:

A. 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 Requirements: NDAC 33.1-15-14-06.10 (40 CFR 64)

- B. For EUs Unit 1, Unit 2, Dust Collectors 1.A thru 1.E, 1.K, 1.H, 2.A thru 2.D, Unit 1 Day Tank, Lime Unloading Building, Lime Silo, Unit 2 Day Tank and Rail Car Loadout, 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 (NDAC) and the Acid Rain Program (40 CFR 72 and 40 CFR 75), as applicable.
 - 1) NDAC 33.1-15-06-05, Reporting and Recordkeeping Requirements.
 - 2) NDAC 33.1-15-12, Subpart A,§60.7, Notification and Recordkeeping and Subpart Y, §60.258, Reporting and Recordkeeping.
 - 3) NDAC 33.1-15-21-09, Reporting and Recordkeeping Requirements.

- 4) NDAC 33.1-15-22 and 40 CFR 63, 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 4. Excess emissions shall be reported for the following:

Parameter

Reporting Period

Applicable Requirements: NDAC 33.1-15-06, NDAC 33.1-15-12, NDAC 33.1-15-21, NDAC 33.1-15-22, 40 CFR 72, 40 CFR 75

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 6 on forms supplied 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 on forms supplied 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 on forms supplied 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

8. **Facility Wide Operating Conditions**:

A. Ambient Air Quality Standards:

- 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 shutdown 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. **Noncompliance Due to an Emergency**: The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - 1) An emergency occurred, and that the permittee can identify the cause(s) of the emergency;
 - 2) The permitted facility was at the time being properly operated;
 - 3) During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
 - 4) The permittee submitted notice of the emergency to the Department within one working day of the time when emission limitations were exceeded longer than 24-hours due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. Those emergencies not reported within one working day, as well as those that were, will be included in the semi-annual report.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a New Source Performance Standard) rather than those established to attain a health-based air quality standard.

An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Applicable Requirement: NDAC 33.1-15-14-06.5.g

I. 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

J. **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

K. **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)

L. **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

M. **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

- N. **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

- O. **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

P. 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)

Q. **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

9. **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:

North Dakota Department of Environmental Quality Division of Air Quality 918 E Divide Avenue, 2nd Floor Bismarck, ND 58501-1947

2) Any document 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)

Duty to Provide Information: The permittee shall furnish to the Department, within a reasonable H. 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 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

10. Affected Source Unit:

Antelope Valley Station ORIS Plant Code 6469 Boiler ID: B1 and B2

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, 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 10.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:

<u>Boiler ID</u>	NO _x <u>Limitation</u>	
B1	0.40 lb/10 ⁶ Btu*	
B2	0.40 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 an NO_x compliance plan prior to expiration of this permit and requirements under 40 CFR 76.13 for calculating excess NO_x emissions.

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met (from 40 CFR 76):

- a) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/MMBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and
 - 1] For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan
 - 2] For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.7, the actual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or
- b) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units

had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.7.

c) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Applicable Requirement: 40 CFR 72.30(c) , 76.7(a)(1), 76.7(a)(2), 76.8(a)(1), 76.9(d), 76.11, 76.13 and NDAC 33.1-15-21-10

2) Liability: The owners and operator of unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Applicable Requirement: 40 CFR 77 and NDAC 33.1-14-21-10

3) **Termination**: The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for with the plan is to be terminated.

Applicable Requirement: 40 CFR 72.40(d)

E. **Excess Emissions Requirements**:

- The designated representative of an affected unit that has excess emissions of SO₂ 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 SO₂, 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 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)

11. 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. T5-F86003 Compliance Assurance Monitoring (CAM) Plan for EU Unit 1 and Unit 2 Particulate Matter Control

EU	EU Description	Air Pollution Control Equipment
Unit 1	6,275 x 10 ⁶ Btu/hr pulverized lignite	Dry Scrubber and Baghouse EP1
Unit 2	6,275 x 10 ⁶ Btu/hr pulverized lignite	Dry Scrubber and Baghouse EP2

ANTELOPE VALLEY STATION Compliance Assurance Monitoring Plan SOURCE ID # Unit 1 and Unit 2 January 8, 2019

I. Emission being Controlled: Particulate

A. Emissions Unit: Unit 1 and Unit 2 CE Coal Fired Boilers

Description: Steam Generator Identification: Unit 1 and Unit 2 Location: Beulah, North Dakota Control Devices: Baghouse; Dry Scrubber

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F86003 Emission Limit: Particulate: 20 Percent Opacity, 0.10 lb/10⁶ Btu, 210 lb/hr

Monitoring Requirements: Opacity

Opacity Durag DR-290	Continuous Opacity Monitoring System (COMS)
-------------------------	---------------------------------------------

C. Control Technology

Baghouse, Low NOx Burners Over-fire Air, Dry Scrubber

The Antelope Valley Station consists of two 454 megawatt pulverized coal fired units. Each unit is controlled by a dry scrubber, a baghouse and post-combustion sorbent injection. Each baghouse consists of two parallel paths that enter a common duct, which discharges, into the stack.

II. Monitoring Methods

A. Compliance Indicators

Compliance will be determined by using the COM monitoring systems values and comparing them to the emission limits set forth in the operating permit. The indicator for any maintenance activity or operational adjustment will be the occurrence of any exceedance of a permitted emission limit and/or the occurrence of a condition as described within this CAM plan. The attached graph shows the relationship between the opacity and the particulate pound per hour emission limit. In order to assure compliance with the pound per hour limit whenever the opacity hourly block average exceeds 9.8 percent, the plant will be required to take the necessary steps to return the unit's opacity level below the 9.8 percent. This will include operational changes, isolating the appropriate sections of the baghouse and/or reducing generation. During normal operations, a one-hour block average exceeding 9.8 percent opacity is considered to be an excursion relative to the

particulate limit of 210 pounds per hour. A three-hour block average exceeding 9.8 percent opacity is considered to be an exceedance of the particulate limit for one hour. Particulate excursions and exceedances are reported in accordance with Section IV of the CAM Plan. Opacity data for potential particulate limit excursions or exceedances during startup, shutdown and malfunctions are reported in quarterly excess emissions reports. The discharge from each portion of the baghouse has an opacity monitor located in the duct prior to the common discharge duct (see attached diagram for monitor position). These opacity monitors are used as indicators for maintenance activities.

B. Monitoring Frequency

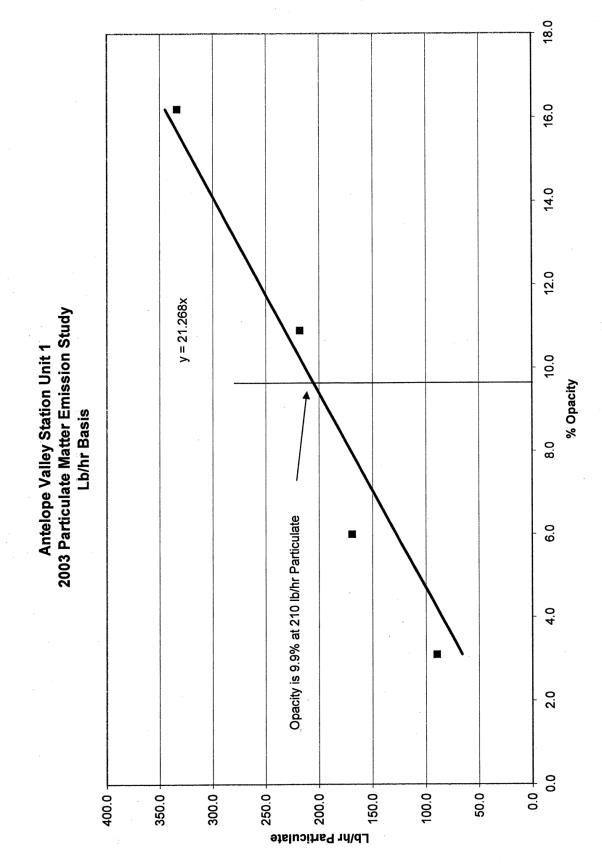
The unit is monitored continuously and the averaging period is an hourly block opacity average. Also, if any excess emissions are detected the plant worker will notify the appropriate personnel immediately to have the control device repaired or to determine if operational adjustments are necessary. The monitoring data record will be stored in the Environmental Coordinator's office.

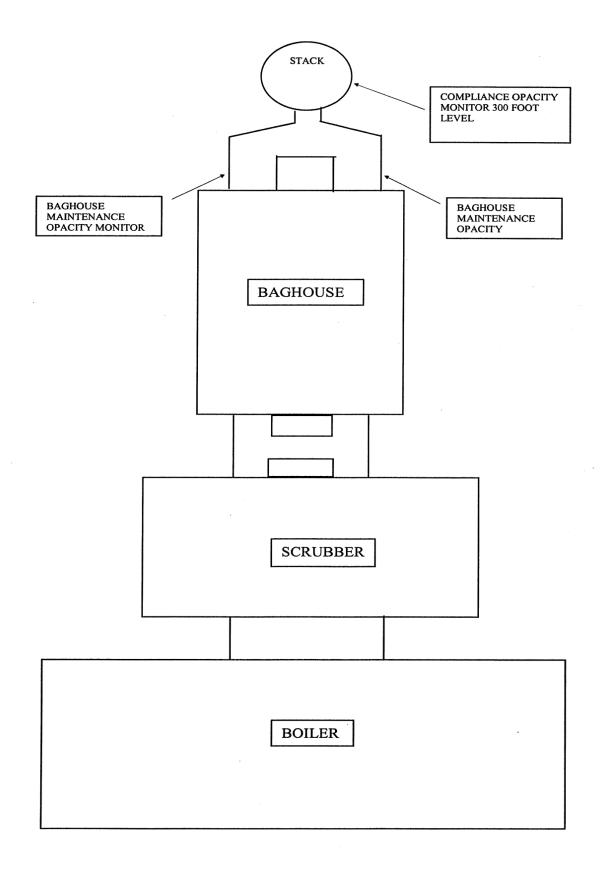
C. QA/QC (Quality Assurance and Quality Control) Plan

The QA/QC plan for the COM systems was submitted to the State and EPA during the initial startup period, approved January 1995. This QA/QC program is strictly followed. All the instrument technicians have been trained in accordance with the systems, rules and regulations. The system is monitored for unit compliance and monitor availability 24 hours a day 365 days per year. If a monitoring device fails personnel are called immediately to repair the device. After any monitor repair is complete all the necessary QA/QC checks are performed to ensure proper operation. The COM system is checked every three years using certified test filters.

- III. Justification for Selected Monitoring Methods
 - The monitoring systems are the latest technology and are environmentally protected in an air A. condition enclosure which houses only CEM and COM associated hardware. These monitors have been in service since the issuing of the Title V operating permit. All 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 has there been any serious extended problems with compliance. The approach which will be used in assuring compliance with particulate is based on the baghouse configuration. There are two sections on each baghouse that discharge into a common outlet duct prior to being discharged out the stack. An opacity monitor is located at the discharge of each section. They are used to monitor the operation of the individual sections. The opacity monitor that is used for regulatory compliance is located in the stack at the 300 foot level. The primary source of increases in opacity is due to bag leakage in the individual compartments. The baghouse operation allows the isolation of any of 14 compartments in each section of the baghouse. By using the opacity monitors on each individual section, a problem can be detected and corrective action can be taken long before any indication would appear at the stack opacity monitor. Therefore, the methods that are described in this CAM plan should be very effective in keeping this unit in compliance with all the permit requirements listed in the Title V operating permit.

- B. The rationale for the selection of the performance indicator is based on the operating principles of the control devices and the latest in technology in monitoring systems. Any reduction in COM monitor availability or increase in excess emissions will indicate a reduction of performance by the control device and will therefore be used as the indicator to correct the condition.
- IV. Record Keeping and Reporting Methods
 - A. All maintenance records monitored data and QA/QC activity 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 Division of Air Quality will be prepared quarterly, and every 6 months to comply with the semi-annual and annual reporting structure.





Attachment B

Title V Permit to Operate No. T5-F86004 Compliance Assurance Monitoring (CAM) Plan for EU Dust Collectors 1A, 1B, 1C, 1D, 1E, 1K, 1H, 2A, 2B, 2C and 2D Particulate Matter/Opacity Control

		Air Pollution Control
EU	EU Description	Equipment
Dust Collector	South row silos	Baghouse
1A		EP M1
Dust Collector	North row silos	Baghouse
1B		EP M2
Dust Collector	South row transfer tower	Baghouse
1C		EP M3
Dust Collector	Plant transfer tower	Baghouse
1D		EP M4
Dust Collector	Plant conveyor loading chute	Baghouse
1E		EP M5
Dust Collector	Stackout conveyor loading chute	Baghouse
1K		EP M6
Dust Collector	Emergency stackout building	Baghouse
1H		EP M7
Dust Collector	Unit 2 south row coal silos	Baghouse
2A		EP M8
Dust Collector	Unit 2 north row coal silos	Baghouse
2B		EP M9
Dust Collector	Unit 2 south row transfer tower	Baghouse
2C		EP M10
Dust Collector	Unit 1 north row transfer tower	Baghouse
2D		EP M11

ANTELOPE VALLEY STATION Compliance Assurance Monitoring Plan SOURCE ID # M1 thru M11 May 2, 2009

I. Emission being Controlled: Particulate

A. Emissions Unit: Common to Coal Handling

Description: Fabric Filter Dust Collector

Identification:	M1	Location:	South Row of Silos 1A	PM Emission Limit: 1.97 lb/hr
Identification:	M2	Location:	North Row of Silos 1B	PM Emission Limit: 1.97 lb/hr
Identification:	M3	Location:	Transfer Tower 1C	PM Emission Limit: 1.89 lb/hr
Identification:	M4	Location:	Plant Transfer Tower 1D	PM Emission Limit: 2.83 lb/hr
Identification:	M5	Location:	Plant Conveyor Chute 1E	PM Emission Limit: 3.26 lb/hr
Identification:	M6	Location:	Stack out Chute 1K	PM Emission Limit: 3.26 lb/hr
Identification:	M7	Location:	E. Stack out building 1H	PM Emission Limit: 2.23 lb/hr
Identification:	M8	Location:	North Row of Silos 2A	PM Emission Limit: 1.97 lb/hr
Identification:	M9	Location:	North Row of Silos 2B	PM Emission Limit: 1.97 lb/hr
Identification:	M10	Location:	Transfer Tower 2C	PM Emission Limit: 1.89 lb/hr
Identification:	M11	Location:	North Transfer Tower 2D	PM Emission Limit: 1.89 lb/hr

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F86003 PM Emission Limit Indicator: 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

PM 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 observations 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 weekly observation and record of the device. 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 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 visual 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 semi-annual and annual reporting structure.

Attachment C Title V Permit to Operate No. T5-F86003 Compliance Assurance Monitoring (CAM) Plan for EU Unit 1 Day Tank, Unloading Building, Lime Silo and Unit 2 Day Tank Particulate Matter/Opacity Control

EU	EU Description	Air Pollution Control Equipment
Unit 1 Day Tank	Unit 1 scrubber lime day tank	Baghouse EP M12
Lime Unloading Building	Lime unloading building	Baghouse EP M13
Lime Silo	Lime silo	Baghouse EP M14
Unit 2 Day Tank	Unit 2 scrubber lime day tank	Baghouse EP M15

ANTELOPE VALLEY STATION Compliance Assurance Monitoring Plan SOURCE ID # M12 thru M15 May 2, 2009

I. Emission being Controlled: Particulate

A. Emissions Unit: Common to Dry Scrubber

Description: Fabric Filter Dust Collector

Identification: M12	Location:	Unit 1Lime Day Tank	PM Emission Limit: 0.21 lb/hr
Identification: M13	Location:	Lime Unloading Building	gPM Emission Limit: 0.58 lb/hr
Identification: M14	Location:	Lime Silo	PM Emission Limit: 0.42 lb/hr
Identification: M15	Location:	Unit 2 Lime Day Tank	PM Emission Limit: 0.21 lb/hr

B. Applicable Regulation, Emission Limit and Monitoring Requirements

Permit Number: T5-F86003 PM Emission Limit Indicator: 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

PM 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 observations 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 weekly observation and record of the device. 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 fabric filter bag house 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 semi-annual and annual reporting structure.