



October 14, 2021

Erin Fox Dukart  
Basin Electric Power Cooperative – Culbertson Generating Station  
1717 East Interstate Ave.  
Bismarck, ND 58503-0564

RE: Final Title V Operating Permit #OP4256-04

The Department of Environmental Quality has prepared the enclosed Final Operating Permit #4256-04, for Basin Electric Power Cooperative – Culbertson Generating Station, located in Section 5, Township 28 North, Range 57 East, Roosevelt County, 7.2 miles northeast of Culbertson, Montana.

Please review the cover page of the attached permit for information pertaining to the action taking place on Permit #OP4256-03.

If you have any questions, please contact Troy M. Burrows, the permit writer, at (406) 444-1452 or by email at [troy.burrows@mt.gov](mailto:troy.burrows@mt.gov).

Sincerely,

A handwritten signature in cursive script that reads "Julie A. Merkel".

Julie A. Merkel  
Permitting Services Section Supervisor  
Air Quality Bureau  
(406) 444-3626

A handwritten signature in cursive script that reads "Troy M. Burrows".

Troy Burrows  
Air Quality Scientist  
Air Quality Bureau  
(406) 444-1452

JM: JP

Enclosure

cc: Gail Fallon, US EPA Region VIII 8P-AR  
Carson Coate, US EPA Region 8 – Montana Operations

STATE OF MONTANA  
Department of Environmental Quality  
Helena, Montana 59620

**AIR QUALITY OPERATING PERMIT OP4256-04**

Issued to: Basin Electric Power Cooperative  
Culbertson Generating Station  
1717 East Interstate Avenue  
Bismarck, North Dakota 58503-0564

Application Received: September 29, 2020  
Application Deemed Administratively Complete: September 29, 2020  
Application Deemed Technically Complete: September 29, 2020

Draft Issue Date: June 23, 2021  
Proposed Issue Date: July 26, 2021  
End of EPA 45-day Review: September 9, 2021  
Date of Decision: September 13, 2021  
Effective Date: October 14, 2021  
Expiration Date: May 14, 2026

**Permit Issuance and Appeal Processes:** In accordance with Montana Code Annotated (MCA) Sections 75-2-217 and 218 and the Administrative Rules of Montana (ARM), ARM Title 17, Chapter 8, Subchapter 12, Operating Permit Program, this operating permit is hereby issued by the Department of Environmental Quality (Department) as effective and final on October 14, 2021. This permit must be kept on-site at the above named facility.

Montana Air Quality Operating Permit  
Department of Environmental Quality

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Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit have the meaning assigned to them in the referenced regulations.

## **SECTION I. GENERAL INFORMATION**

The following general information is provided pursuant to ARM 17.8.1210(1).

Company Name: Basin Electric Power Cooperative

Mailing Address: Culbertson Generation Station; 1717 East Interstate Avenue

City: Bismarck State: North Dakota Zip: 58503

Plant Location: Section 5, Township 28 North, Range 57 East, Roosevelt County, 7.2 miles northeast of Culbertson, Montana

Responsible Official: Troy Tweeten

Facility Contact Person: Erin Dukart

Primary SIC Code: 4911

Nature of Business: Power Generation

Description of Process: The generation plant houses a single, simple-cycle, General Electric (GE) LMS100 aeroderivative combustion turbine and an electric generator driven by the turbine. The turbine draws in combustion air which is compressed and mixed with natural gas. The fuel-air mixture is ignited to produce compressed hot combustion gases which expand and rotate a shaft which turns a generator to produce electricity. Gross generation capacity of the turbine is 100 megawatts (MW) The turbine combusts natural gas which will be supplied by an existing pipeline running through the Basin Electric property.

**SECTION II. SUMMARY OF EMISSIONS UNITS**

The emissions units regulated by this permit are the following (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	General Electric LMS100 (100 MW) Simple Cycle Combustion Turbine	Water/Steam Combustion Injection, Pipeline Quality Natural Gas, Catalytic Oxidation, Hours of Operation Limits

### SECTION III. PERMIT CONDITIONS

The following requirements and conditions are applicable to the facility or to specific emissions units located at the facility (ARM 17.8.1211, 1212, and 1213).

#### A. Facility-Wide

Conditions	Rule Citation	Rule Description	Pollutant/Parameter	Limit
A.1	ARM 17.8.105	Testing Requirements	Testing Requirements	-----
A.2	ARM 17.8.304(1)	Visible Air Contaminants	Opacity	40%
A.3	ARM 17.8.304(2)	Visible Air Contaminants	Opacity	20%
A.4	ARM 17.8.308(1)	Particulate Matter, Airborne	Fugitive Opacity	20%
A.5	ARM 17.8.308(2)	Particulate Matter, Airborne	Reasonable Precautions	-----
A.6	ARM 17.8.308	Particulate Matter, Airborne	Reasonable Precaution, Construction	20%
A.7	ARM 17.8.309	Particulate Matter, Fuel Burning Equipment	Particulate Matter	$E = 0.882 * H^{-0.1664}$ Or $E = 1.026 * H^{-0.233}$
A.8	ARM 17.8.310	Particulate Matter, Industrial Processes	Particulate Matter	$E = 4.10 * P^{0.67}$ or $E = 55 * P^{0.11 - 40}$
A.9	ARM 17.8.322(4)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (liquid or solid fuels)	1 lb/MMBtu fired
A.10	ARM 17.8.322(5)	Sulfur Oxide Emissions, Sulfur in Fuel	Sulfur in Fuel (gaseous)	50 gr/100 CF
A.11	ARM 17.8.324(3)	Hydrocarbon Emissions, Petroleum Products	Gasoline Storage Tanks	-----
A.12	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	65,000 Gallon Capacity	-----
A.13	ARM 17.8.324	Hydrocarbon Emissions, Petroleum Products	Oil-effluent Water Separator	-----
A.14	ARM 17.8.342	NESHAPs General Provisions	SSM Plans	Submittal
A.15	ARM 17.8.1211(1)(c) and 40 CFR Part 98	Greenhouse Gas Reporting	Reporting	-----
A.16	ARM 17.8.1212	Reporting Requirements	Prompt Deviation Reporting	-----
A.17	ARM 17.8.1212	Reporting Requirements	Compliance Monitoring	-----
A.18	ARM 17.8.1207	Reporting Requirements	Annual Certification	-----

#### Conditions

- A.1. Pursuant to ARM 17.8.105, any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct test, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

Compliance demonstration frequencies that list “as required by the Department” refer to ARM 17.8.105. In addition, for such sources, compliance with limits and conditions listing

“as required by the Department” as the frequency, is verified annually using emission factors and engineering calculations by the Department’s compliance inspectors during the annual emission inventory review; in the case of Method 9 tests, compliance is monitored during the regular inspection by the compliance inspector.

- A.2. Pursuant to ARM 17.8.304(1), Basin Electric shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.3. Pursuant to ARM 17.8.304(2), Basin Electric shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.4. Pursuant to ARM 17.8.308(1), Basin Electric shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control emissions of particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.5. Pursuant to ARM 17.8.308(2), Basin Electric shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter, unless otherwise specified by rule or in this permit.
- A.6. Pursuant to ARM 17.8.308, Basin Electric shall not operate a construction site or demolition project unless reasonable precautions are taken to control emissions of airborne particulate matter. Such emissions of airborne particulate matter from any stationary source shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes, unless otherwise specified by rule or in this permit.
- A.7. Pursuant to ARM 17.8.309, unless otherwise specified by rule or in this permit, Basin Electric shall not cause or authorize particulate matter caused by the combustion of fuel to be discharged from any stack or chimney into the outdoor atmosphere in excess of the maximum allowable emissions of particulate matter for existing fuel burning equipment and new fuel burning equipment calculated using the following equations:

For existing fuel burning equipment (installed before November 23, 1968):

$$E = 0.882 * H^{0.1664}$$

For new fuel burning equipment (installed on or after November 23, 1968):

$$E = 1.026 * H^{0.233}$$

Where H is the heat input capacity in million BTU (MMBtu) per hour and E is the maximum allowable particulate emissions rate in pounds per MMBtu.

- A.8. Pursuant to ARM 17.8.310, unless otherwise specified by rule or in this permit, Basin Electric shall not cause or authorize particulate matter to be discharged from any operation, process,

or activity into the outdoor atmosphere in excess of the maximum hourly allowable emissions of particulate matter calculated using the following equations:

For process weight rates up to 30 tons per hour:

$$E = 4.10 * P^{0.67}$$

For process weight rates in excess of 30 tons per hour:

$$E = 55.0 * P^{0.11} - 40$$

Where E = rate of emissions in pounds per hour and P = process weight rate in tons per hour.

- A.9. Pursuant to ARM 17.8.322(4), Basin Electric shall not burn liquid or solid fuels containing sulfur in excess of 1 pound per million BTU fired, unless otherwise specified by rule or in this permit.
- A.10. Pursuant to ARM 17.8.322(5), Basin Electric shall not burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions, unless otherwise specified by rule or in this permit.
- A.11. Pursuant to ARM 17.8.324(3), Basin Electric shall not load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device or is a pressure tank as described in ARM 17.8.324(1), unless otherwise specified by rule or in this permit.
- A.12. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Basin Electric shall not place, store or hold in any stationary tank, reservoir or other container of more than 65,000 gallon capacity any crude oil, gasoline or petroleum distillate having a vapor pressure of 2.5 pounds per square inch absolute or greater under actual storage conditions, unless such tank, reservoir or other container is a pressure tank maintaining working pressure sufficient at all times to prevent hydrocarbon vapor or gas loss to the atmosphere, or is designed and equipped with a vapor loss control device, properly installed, in good working order and in operation.
- A.13. Pursuant to ARM 17.8.324, unless otherwise specified by rule or in this permit, Basin Electric shall not use any compartment of any single or multiple-compartment oil-effluent water separator, which compartment receives effluent water containing 200 gallons a day or more of any petroleum product from any equipment processing, refining, treating, storing or handling kerosene or other petroleum product of equal or greater volatility than kerosene, unless such compartment is equipped with a vapor loss control device, constructed so as to prevent emission of hydrocarbon vapors to the atmosphere, properly installed, in good working order and in operation.
- A.14. Pursuant to ARM 17.8.342 and 40 CFR 63.6, Basin Electric shall submit to the Department a copy of any startup, shutdown, and malfunction (SSM) plan required under 40 CFR 63.6(e)(3) within 30 days of the effective date of this operating permit (if not previously submitted), within 30 days of the compliance date of any new National Emission Standard for Hazardous Air Pollutants (NESHAPs) or Maximum Achievable Control Technology (MACT) standard, and within 30 days of the revision of any such SSM plan, when



applicable. The Department requests submittal of such plans in electronic form, when possible.

- A.15. Pursuant to ARM 17.8.1211(1)(c) and 40 CFR Part 98, Basin Electric shall comply with requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas Reporting, as applicable (ARM 17.8.1211(1)(c), NOT an applicable requirement under Title V).
- A.16. Basin Electric shall promptly report deviations from permit requirements including those attributable to upset conditions, as upset is defined in the permit. To be considered prompt, deviations shall be reported to the Department using the schedule and content as described in Section V.E (unless otherwise specified in an applicable requirement) (ARM 17.8.1212).
- A.17. On or before February 15 and August 15 of each year, Basin Electric shall submit to the Department the compliance monitoring reports required by Section V.D. These reports must contain all information required by Section V.D, as well as the information required by each individual emissions unit. For the reports due by February 15 of each year, Basin Electric may submit a single report, provided that it contains all the information required by Section V.B & V.D. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including semiannual monitoring reports), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”*

- A.18. By February 15 of each year, Basin Electric shall submit to the Department the compliance certification required by Section V.B. The annual certification required by Section V.B must include a statement of compliance based on the information available which identifies any observed, documented or otherwise known instance of noncompliance for each applicable requirement. Per ARM 17.8.1207,

*any application form, report, or compliance certification submitted pursuant to ARM Title 17, Chapter 8, Subchapter 12 (including annual certifications), shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, “based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.”*

**B. EU001: GE LMS100 – 100 MW Combustion Turbine**

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method Frequency		Reporting Requirements
B.1, B.2, B.7, B.13, B.14, B.15, B.16, B.17, B.22, B.23, B.24, B.25, B.26, B.27, B.28, B.29, B.30, B.31	NO <sub>x</sub>	78.50 lb/hr – 1 hr average	NO <sub>x</sub> CEMS	Continuous	Semiannual
		25 ppmvd at 15% O <sub>2</sub> – 1 hr average	Method 7	Start-up and Biannually	
		Install, Operate and Maintain Control Equipment	Record Keeping	Ongoing	
B.3, B.8, B.14, B.21, B.23, B.25, B.28, B.29, B.30, B.31	CO	21.50 lb/hr – 3 hr average	Method 10	Start-up and Biannually	Semiannual
		Install, Operate and Maintain Control Equipment	Record Keeping	Ongoing	
B.4, B.19, B.28, B.29, B.30, B.31	VOC	1.33 lb/hr – 1 hr average	Method 18/25	As required by the Department and Section III.A.1	Semiannual
		Install, Operate and Maintain Control Equipment	Record Keeping	Ongoing	
B.5, B.9, B.20, B.21, B.25, B.30, B.31	PM/PM10/PM2.5	6 lb/hr – 1hr average	Fuel Restrictions/ Record Keeping	Ongoing	Semiannual
B.9, B.21, B.25, B.30, B.31	SO <sub>2</sub>	Fuel Restriction	Record Keeping	Ongoing	
B.6, B.21, B.25, B.30, B.31	Hours of Operation	3233 MMscf natural gas per Rolling 12- Month	Record Keeping	Ongoing	
B.10, B.21, B.25, B.30, B.31	Stack Height	At least 85.6 feet in height (from final grade)	Log any instances of stack existing below 85.6 feet	Ongoing	
B.9, B.11, B.20, B.21, B.25, B.30, B.31	Opacity	20%	Record Keeping	Ongoing	
		Fuel Restriction			
B.12, B.15, B.16, B.17, B.20, B.26, B.30, B.31	40 CFR 60, Subpart	40 CFR 60, Subpart KKKK	40 CFR 60, Subpart KKKK	40 CFR 60, Subpart KKKK	40 CFR 60, Subpart KKKK

Condition(s)	Pollutant/Parameter	Permit Limit	Compliance Demonstration Method Frequency		Reporting Requirements
B.13, B.15, B.22, B.24, B.27, B.30, B.31	Acid Rain	40 CFR Part 72-78, as applicable	As applicable	As applicable	Semiannual
B.14, B.24, B.31 B.33, B.34	CO CAM Plan	CAM Plan Appendix F	CAM Plan Appendix F	Ongoing	Semiannual

## Conditions

- B.1. Emissions of nitrogen oxides (NO<sub>x</sub>) from the turbine generator shall not exceed 78.50 pounds per hour (lb/hr) based on a 1-hour average, effective during all periods of operation, including startup and shutdown (ARM 17.8.752).
- B.2. Emissions of NO<sub>x</sub> from the turbine generator shall not exceed 25 parts per million dry volume (ppmvd) at 15% oxygen (O<sub>2</sub>), based on a 1-hour average calculated over 4 continuous hours of operation, effective during all periods of operation, including startup and shutdown (ARM 17.8.340 and 40 CFR 60, Subpart KKKK).
- B.3. Emissions of carbon monoxide (CO) from the turbine generator shall not exceed 21.50 lb/hr based on a 3-hour average, effective during all periods of operation, including startup and shutdown (ARM 17.8.752).
- B.4. Emissions of volatile organic compounds (VOCs) from the turbine generator shall not exceed 1.33 lb/hr based on a 1-hour average, effective during all periods of operation, including startup and shutdown (ARM 17.8.752).
- B.5. The combined sum of filterable and condensable emissions of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) from the turbine generator shall not exceed 6.00 lb/hr based on a 1-hour average, effective during all periods of operation, including startup and shutdown (ARM 17.8.752).
- B.6. Operation of the turbine generator, including startup and shutdown, shall not exceed 3233 million standard cubic feet (MMSCF) of natural gas per rolling 12-month time period (ARM 17.8.749).
- B.7. Basin Electric shall operate and maintain a water-injection system to control NO<sub>x</sub> emissions during the combustion process. Water-injection shall commence within 10 minutes of turbine startup and shall continue until 10 minutes or less prior to shutdown (ARM 17.8.752).
- B.8. Basin Electric shall install, operate, and maintain a catalytic oxidizer to control emissions of CO and VOCs (ARM 17.8.752).
- B.9. Basin Electric shall combust only pipeline quality natural gas in the turbine generator (ARM 17.8.752).

- B.10. The turbine shall exhaust into a stack that is at least 85.6-feet tall from grade (ARM 17.8.749).
- B.11. Basin Electric shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- B.12. Basin Electric shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart KKKK (ARM 17.8.340 and 40 CFR 60, Subpart KKKK).
- B.13. Basin Electric shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements of the Acid Rain Program contained in 40 CFR Parts 72-78 (40 CFR Part 72 through 40 CFR Part 78).
- B.14. Basin Electric shall provide a reasonable assurance of compliance with the emission limitations or standards for the operation of the emitting unit by following the CAM plan contained in Appendix F of this permit (ARM 17.8.1504).

### **Compliance Demonstration**

- B.15. Basin Electric shall test the turbine generator, using natural gas as a fuel, for NO<sub>x</sub> and CO, concurrently, within 180 days of initial startup of the turbine generator, or according to another testing/monitoring schedule as may be approved by the Department, to demonstrate compliance with the NO<sub>x</sub> and CO emission limits contained in Sections III.B.1, III.B.2, and III.B.3. The testing shall continue on an every 2-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
- B.16. Basin Electric shall monitor compliance with the requirements of Sections III.B.1 and 40 CFR 60, Subpart KKKK by maintaining, calibrating, and operating a CEMS for the measurement of NO<sub>x</sub> and a diluent gas (oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>)) monitor on each generating unit stack; by reporting all excess emissions per 40 CFR 60, Subpart KKKK; and by conducting performance tests in accordance with the requirements of 40 CFR 60, Subpart A; 40 CFR Part 60, Appendix B (Performance Specifications #2, #3, #4 and/or #4A); 40 CFR 60, Subpart KKKK and 40 CFR Part 72-78, as applicable (ARM 17.8.105; ARM 17.8.749; 40 CFR 60, Subpart KKKK).
- B.17. Basin Electric shall install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO<sub>x</sub> monitor and a diluent gas (O<sub>2</sub> or CO<sub>2</sub>) monitor, to determine the hourly NO<sub>x</sub> emission rate in ppm (ARM 17.8.749, ARM 17.8.340, ARM 17.8.1213 and 40 CFR 60, Subpart KKKK).
- B.18. Basin Electric shall comply with all applicable requirements of 40 CFR 60, Subpart KKKK, including requirements for CEMS installation, certification, quality assurance, and relative accuracy and performance testing (ARM 17.8.340 and 40 CFR 60, Subpart KKKK).

- B.19. Basin Electric shall develop a quality assurance plan for all CEMS and on-going quality assurance requirements for the gas CEMS that conforms to 40 CFR Part 60, Appendix F (ARM 17.8.1213).
- B.20. As required by the Department and Section III.A.1, Basin Electric shall perform a Method 18/Method 25 test in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106) to monitor compliance with the emissions limitations in Section III.B.4 (ARM 17.8.1213).
- B.21. Monitoring compliance with the PM/PM<sub>10</sub>/PM<sub>2.5</sub> limitations in Section III.B.5, the opacity limitations in Section III.B.11 and fuel limitations in Section III.B.9 and other NSPS-based requirements in Section III.B.12 shall be satisfied by burning pipeline quality natural gas in the generating unit (ARM 17.8.749, ARM 17.8.1213 and 40 CFR 60, Subparts A and KKKK).
- B.22. Monitoring compliance with the hours of operation limits in Section III.B.6; the control equipment requirements in Sections III.B.7 and B.8, the fuel requirements in Section III.B.9, and the stack height requirement in Section III.B.10 shall be accomplished through recordkeeping as described in Sections III.B.23 and III.B.25 (ARM 17.8.1213).
- B.23. Compliance monitoring for the applicable requirements contained in 40 CFR 72-78 shall be accomplished as described in 40 CFR Parts 72-78 (40 CFR Part 72 through 40 CFR Part 78).
- B.24. Basin Electric shall monitor compliance with Section III.B.14 by adhering to the CAM Plan contained in Appendix F of the permit (ARM 17.8.1213 and ARM 17.8.1503)

### **Recordkeeping**

- B.25. Basin Electric shall maintain a log recording the results of the oxidation catalyst inspections (as required by the manufacturer) and any maintenance performed on the water injection, and oxidation catalyst units. Each log entry must include the date, the time, the results of the inspection, and the initials of the documenting personnel. The log must be maintained on-site and must be submitted to the Department upon request (ARM 17.8.1212).
- B.26. Basin Electric shall maintain a file of all measurements from the CEMS and performance testing measurements, including: all CEMS performance evaluations; all CEMS or monitoring device calibration checks and audits; all adjustments and maintenance performed on these systems or devices. These shall be recorded in a permanent form suitable for inspection and shall be retained on-site for at least 5 years following the date of such measurements and reports. Basin Electric shall supply these records to the Department upon request (ARM 17.8.749 and ARM 17.8.1212).
- B.27. Basin Electric shall maintain on site a log documenting the following operational parameters and conditions. All log entries shall include the initials of the documenting personnel (ARM 17.8.1212).

- a. Date and time turbine start-up events begin and turbine shut-down events end;
  - b. Date, time and duration of operation of the turbine, during which, the water injection system was not operated;
  - c. Date, time and duration of operation of the turbine, during which, the catalytic oxidation control system was not operated;
  - d. Basin Electric shall document, by month, the hours of operation for the turbine generator, including startup and shutdown. By the 25th day of each month, Basin Electric shall total the hours of operation for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
  - e. Date, time and duration that any fuel other than pipeline quality natural gas is combusted in the turbine: and
  - f. Any project, site modifications or site improvements that results in changes to stack height.
- B.28. Basin Electric shall comply with all applicable recordkeeping requirements contained in 40 CFR 60, Subpart KKKK (40 CFR 60, Subpart KKKK).
- B.29. Basin Electric shall comply with all applicable recordkeeping requirements contained in 40 CFR Part(s) 72-78. Basin Electric shall submit a summary of any required reports to the Department along with the semiannual compliance monitoring reports required by Section III.A.17 and Section V.D (40 CFR 72-78).
- B.30. All compliance source test recordkeeping shall be performed in accordance with the test method used and the Montana Source Test Protocol and Procedures Manual, and shall be maintained on site (ARM 17.8.106 and ARM 17.8.1212).
- B.31. Basin Electric shall maintain CAM applicable records in accordance with 40 CFR Part 64 and the CAM Plan contained in Appendix F of this permit (ARM 17.8.1212, ARM 17.8.1513, and 40 CFR 64).

## Reporting

- B.32. Any compliance source test reports must be submitted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.1212).
- B.33. The annual compliance certification required by Section V.B must contain a certification statement for the above applicable requirements (ARM 17.8.1212).
- B.34. The semiannual monitoring report shall provide (ARM 17.8.1212):

- a. A summary of results of any source testing that was performed during that semiannual period,
- b. Date and time turbine start-up events begin and turbine shut-down events end,
- c. Date, time and duration of operation of the turbine during which, the water injection system is not operated,
- d. Date, time and duration of operation of the turbine, during which, the catalytic oxidation control system was not operated,
- e. The hours of operation for the turbine generator, including startup and shutdown,
- f. Any instance in which fuel other than pipeline quality natural gas was used (including information required in the log), and
- g. Any instance in which a project or site improvement or modification renders the stack height less than 85.6 feet.
- h. A summary of the records for any time period that the CAM Plan contained in Appendix F of this permit was not followed.

#### **SECTION IV. NON-APPLICABLE REQUIREMENTS**

The permit application for Basin Electric's Title V Operating Permit #OP4256-03 identified applicable requirements: non-applicable requirements for individual or specific emission units and facility-wide operations were not listed.



## SECTION V. GENERAL PERMIT CONDITIONS

### A. Compliance Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(a)-(c)&(e), §1206(6)(c)&(b)

1. The permittee must comply with all conditions of the permit. Any noncompliance with the terms or conditions of the permit constitutes a violation of the Montana Clean Air Act, and may result in enforcement action, permit modification, revocation and reissuance, or termination, or denial of a permit renewal application under ARM Title 17, Chapter 8, Subchapter 12.
2. 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.
3. 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 the permit. If appropriate, this factor may be considered as a mitigating factor in assessing a penalty for noncompliance with an applicable requirement if the source demonstrates that both the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations, and that such health, safety or environmental impacts were unforeseeable and could not have otherwise been avoided.
4. The permittee shall furnish to the Department, within a reasonable time set by the Department (not to be less than 15 days), 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. Upon request, the permittee shall also furnish to the Department copies of those records that are required to be kept pursuant to the terms of the permit. This subsection does not impair or otherwise limit the right of the permittee to assert the confidentiality of the information requested by the Department, as provided in 75-2-105, MCA.
5. Any schedule of compliance for applicable requirements with which the source is not in compliance with at the time of permit issuance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it was based.
6. For applicable requirements that will become effective during the permit term, the source shall meet such requirements on a timely basis unless a more detailed plan or schedule is required by the applicable requirement or the Department.

### B. Certification Requirements

ARM 17.8, Subchapter 12, Operating Permit Program §1207 and §1213(7)(a)&(c)-(d)

1. Any application form, report, or compliance certification submitted pursuant to ARM

Title 17, Chapter 8, Subchapter 12, shall contain certification by a responsible official of truth, accuracy and completeness.

This certification and any other certification required under ARM Title 17, Chapter 8, Subchapter 12, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete. Compliance certifications shall be submitted by February 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. Each certification must include the required information for the previous calendar year (i.e., January 1 – December 31).

2. Compliance certifications shall include the following:
  - a. The identification of each term or condition of the permit that is the basis of the certification;
  - b. The identification of the method(s) or other means used by the owner or operator for determining the status of compliance with each term and condition during the certification period, consistent with ARM 17.8.1212;
  - c. The status of compliance with each term and condition for the period covered by the certification, *including whether compliance during the period was continuous or intermittent* (based on the method or means identified in ARM 17.8.1213(7)(c)(ii), as described above); and
  - d. Such other facts as the Department may require to determine the compliance status of the source.
3. All compliance certifications must be submitted to the Environmental Protection Agency, as well as to the Department, at the addresses listed in the Notification Addresses Appendix of this permit.

### **C. Permit Shield**

ARM 17.8, Subchapter 12, Operating Permit Program §1214(1)-(4)

1. The applicable requirements and non-federally enforceable requirements are included and specifically identified in this permit and the permit includes a precise summary of the requirements not applicable to the source. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements and any non-federally enforceable requirements as of the date of permit issuance.
2. The permit shield described in 1 above shall remain in effect during the appeal of any permit action (renewal, revision, reopening, or revocation and reissuance) to the Board of Environmental Review (Board), until the Board renders its final decision.
3. Nothing in this permit alters or affects the following:
  - a. The provisions of Sec. 7603 of the FCAA, including the authority of the

administrator under that section;

- b. 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;
  - c. The applicable requirements of the Acid Rain Program, consistent with Sec. 7651g(a) of the FCAA;
  - d. The ability of the administrator to obtain information from a source pursuant to Sec. 7414 of the FCAA;
  - e. The ability of the Department to obtain information from a source pursuant to the Montana Clean Air Act, Title 75, Chapter 2, MCA;
  - f. The emergency powers of the Department under the Montana Clean Air Act, Title 75, Chapter 2, MCA; and
  - g. The ability of the Department to establish or revise requirements for the use of reasonably available control technology (RACT) as defined in ARM Title 17, Chapter 8. However, if the inclusion of a RACT into the permit pursuant to ARM Title 17, Chapter 8, Subchapter 12, is appealed to the Board, the permit shield, as it applies to the source's existing permit, shall remain in effect until such time as the Board has rendered its final decision.
4. Nothing in this permit alters or affects the ability of the Department to take enforcement action for a violation of an applicable requirement or permit term demonstrated pursuant to ARM 17.8.106, Source Testing Protocol.
  5. Pursuant to ARM 17.8.132, for the purpose of submitting a compliance certification, nothing in these rules shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance. However, when compliance or noncompliance is demonstrated by a test or procedure provided by permit or other applicable requirements, the source shall then be presumed to be in compliance or noncompliance unless that presumption is overcome by other relevant credible evidence.
  6. The permit shield will not extend to minor permit modifications or changes not requiring a permit revision (see Sections I & J).
  7. The permit shield will extend to significant permit modifications and transfer or assignment of ownership (see Sections K & O).

#### **D. Monitoring, Recordkeeping, and Reporting Requirements**

ARM 17.8, Subchapter 12, Operating Permit Program §1212(2)&(3)

1. Unless otherwise provided in this permit, the permittee shall maintain compliance

monitoring records that include the following information:

- a. The date, place as defined in the permit, and time of sampling or measurement;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of such analyses; and
  - f. The operating conditions at the time of sampling or measurement.
2. The permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All monitoring data, support information, and required reports and summaries may be maintained in computerized form at the plant site if the information is made available to Department personnel upon request, which may be for either hard copies or computerized format. Strip-charts must be maintained in their original form at the plant site and shall be made available to Department personnel upon request.
  3. The permittee shall submit to the Department, at the addresses located in the Notification Addresses Appendix of this permit, reports of any required monitoring by February 15 and August 15 of each year, or more frequently if otherwise specified in an applicable requirement or elsewhere in the permit. The monitoring report submitted on February 15 of each year must include the required monitoring information for the period of July 1 through December 31 of the previous year. The monitoring report submitted on August 15 of each year must include the required monitoring information for the period of January 1 through June 30 of the current year. All instances of deviations from the permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official, consistent with ARM 17.8.1207.

#### **E. Prompt Deviation Reporting**

ARM 17.8, Subchapter 12, Operating Permit Program §1212(3)(b)

The permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. To be considered prompt, deviations shall be reported to the Department within the following timeframes (unless otherwise specified in an applicable requirement):

1. For deviations which may result in emissions potentially in violation of permit

limitations:

- a. An initial phone notification (or faxed or electronic notification) describing the incident within 24 hours (or the next business day) of discovery; and,
  - b. A follow-up written, faxed, or electronic report within 30 days of discovery of the deviation that describes the probable cause of the reported deviation and any corrective actions or preventative measures taken.
2. For deviations attributable to malfunctions, deviations shall be reported to the Department in accordance with the malfunction reporting requirements under ARM 17.8.110; and
  3. For all other deviations, deviations shall be reported to the Department via a written, faxed, or electronic report within 90 days of discovery (as determined through routine internal review by the permittee).

Prompt deviation reports do not need to be resubmitted with regular semiannual (or other routine) reports, but may be referenced by the date of submittal.

## **F. Emergency Provisions**

ARM 17.8, Subchapter 12, Operating Permit Program §1201(13) and §1214(5), (6)&(8)

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation and causes the source to exceed a technology-based emission limitation under this permit due to the unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of reasonable preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates through properly signed, contemporaneous logs, or other relevant evidence, that:
  - a. An emergency occurred and the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in the permit; and

- d. The permittee submitted notice of the emergency to the Department within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirements of ARM 17.8.1212(3)(b). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
3. These emergency provisions are in addition to any emergency, malfunction or upset provision contained in any applicable requirement.

**G. Inspection and Entry**

ARM 17.8, Subchapter 12, Operating Permit Program §1213(3)&(4)

1. Upon presentation of credentials and other requirements as may be required by law, the permittee shall allow the Department, the administrator, or an authorized representative (including an authorized contractor acting as a representative of the Department or the administrator) to perform the following:
  - a. Enter the premises where a source required to obtain a permit is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - c. Inspect at reasonable times any facilities, emission units, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. As authorized by the Montana Clean Air Act and rules promulgated thereunder, sample or monitor, at reasonable times, any substances or parameters at any location for the purpose of assuring compliance with the permit or applicable requirements.
2. The permittee shall inform the inspector of all workplace safety rules or requirements at the time of inspection. This section shall not limit in any manner the Department's statutory right of entry and inspection as provided for in 75-2-403, MCA.

**H. Fee Payment**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(f) and ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees §505(3)-(5) (STATE ONLY)

1. The permittee must pay application and operating fees, pursuant to ARM Title 17, Chapter 8, Subchapter 5.
2. Annually, the Department shall provide the permittee with written notice of the

amount of the fee and the basis for the fee assessment. The air quality operation fee is due 30 days after receipt of the notice, unless the fee assessment is appealed pursuant to ARM17.8.511. If any portion of the fee is not appealed, that portion of the fee that is not appealed is due 30 days after receipt of the notice. Any remaining fee, which may be due after the completion of an appeal, is due immediately upon issuance of the Board's decision or upon completion of any judicial review of the Board's decision.

3. If the permittee fails to pay the required fee (or any required portion of an appealed fee) within 90 days of the due date of the fee, the Department may impose an additional assessment of 15% of the fee (or any required portion of an appealed fee) or \$100, whichever is greater, plus interest on the fee (or any required portion of an appealed fee), computed at the interest rate established under 15-31-510(3), MCA.

#### **I. Minor Permit Modifications**

ARM 17.8, Subchapter 12, Operating Permit Program §1226(3)&(11)

1. An application for a minor permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation, or deletion, and may reference any required information that has been previously submitted.
2. The permit shield under ARM 17.8.1214 will not extend to any minor modifications processed pursuant to ARM 17.8.1226.

#### **J. Changes Not Requiring Permit Revision**

ARM 17.8, Subchapter 12, Operating Permit Program §1224(1)-(3), (5)&(6)

1. The permittee is authorized to make changes within the facility as described below, provided the following conditions are met:
  - a. The proposed changes do not require the permittee to obtain a Montana Air Quality Permit under ARM Title 17, Chapter 8, Subchapter 7;
  - b. The proposed changes are not modifications under Title I of the FCAA, or as defined in ARM Title 17, Chapter 8, Subchapters 8, 9, or 10;
  - c. The emissions resulting from the proposed changes do not exceed the emissions allowable under this permit, whether expressed as a rate of emissions or in total emissions;
  - d. The proposed changes do not alter permit terms that are necessary to enforce applicable emission limitations on emission units covered by the permit; and
  - e. The facility provides the administrator and the Department with written notification at least 7 days prior to making the proposed changes.

2. The permittee and the Department shall attach each notice provided pursuant to 1.e above to their respective copies of this permit.
3. Pursuant to the conditions above, the permittee is authorized to make Section 502(b)(10) changes, as defined in ARM 17.8.1201(30), without a permit revision. For each such change, the written notification required under 1.e above shall include a description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
4. The permittee may make a change not specifically addressed or prohibited by the permit terms and conditions without requiring a permit revision, provided the following conditions are met:
  - a. Each proposed change does not weaken the enforceability of any existing permit conditions;
  - b. The Department has not objected to such change;
  - c. Each proposed change meets all applicable requirements and does not violate any existing permit term or condition; and
  - d. The permittee provides contemporaneous written notice to the Department and the administrator of each change that is above the level for insignificant emission units as defined in ARM 17.8.1201(22) and 17.8.1206(3), and the written notice describes each such change, including the date of the change, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
5. The permit shield authorized by ARM 17.8.1214 shall not apply to changes made pursuant to ARM 17.8.1224(3) and (5), but is applicable to terms and conditions that allow for increases and decreases in emissions pursuant to ARM 17.8.1224(4).

**K. Significant Permit Modifications**

ARM 17.8, Subchapter 12, Operating Permit Program §1227(1), (3)&(4)

1. The modification procedures set forth in 2 below must be used for any application requesting a significant modification of this permit. Significant modifications include the following:
  - a. Any permit modification that does not qualify as either a minor modification or as an administrative permit amendment;
  - b. Every significant change in existing permit monitoring terms or conditions;
  - c. Every relaxation of permit reporting or recordkeeping terms or conditions that limit the Department's ability to determine compliance with any applicable rule, consistent with the requirements of the rule; or



- d. Any other change determined by the Department to be significant.
2. Significant modifications shall meet all requirements of ARM Title 17, Chapter 8, including those for applications, public participation, and review by affected states and the administrator, as they apply to permit issuance and renewal, except that an application for a significant permit modification need only address in detail those portions of the permit application that require revision, updating, supplementation or deletion.
3. The permit shield provided for in ARM 17.8.1214 shall extend to significant modifications.

#### **L. Reopening for Cause**

ARM 17.8, Subchapter 12, Operating Permit Program §1228(1)&(2)

This permit may be reopened and revised under the following circumstances:

1. Additional applicable requirements under the FCAA become applicable to the facility when the permit has a remaining term of 3 or more years. Reopening and revision of the permit shall be completed not later than 18 months after promulgation of the applicable requirement. No reopening is required under ARM 17.8.1228(1)(a) if the effective date of the applicable requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms or conditions have been extended pursuant to ARM 17.8.1220(12) or 17.8.1221(2);
2. Additional requirements (including excess emission requirements) become applicable to an affected source under the Acid Rain Program. Upon approval by the administrator, excess emission offset plans shall be deemed incorporated into the permit;
3. The Department or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit; or
4. The administrator or the Department determines that the permit must be revised or revoked and reissued to ensure compliance with the applicable requirements.

#### **M. Permit Expiration and Renewal**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(g), §1220(11)&(12), and §1205(2)(d)

1. This permit is issued for a fixed term of 5 years.

2. Renewal of this permit is subject to the same procedural requirements that apply to permit issuance, including those for application, content, public participation, and affected state and administrator review.
3. Expiration of this permit terminates the permittee's right to operate unless a timely and administratively complete renewal application has been submitted consistent with ARM 17.8.1221 and 17.8.1205(2)(d). If a timely and administratively complete application has been submitted, all terms and conditions of the permit, including the application shield, remain in effect after the permit expires until the permit renewal has been issued or denied.
4. For renewal, the permittee shall submit a complete air quality operating permit application to the Department not later than 6 months prior to the expiration of this permit, unless otherwise specified. If necessary to ensure that the terms of the existing permit will not lapse before renewal, the Department may specify, in writing to the permittee, a longer time period for submission of the renewal application. Such written notification must be provided at least 1 year before the renewal application due date established in the existing permit.

**N. Severability Clause**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(i)&(l)

1. The administrative appeal or subsequent judicial review of the issuance by the Department of an initial permit under this subchapter shall not impair in any manner the underlying applicability of all applicable requirements, and such requirements continue to apply as if a final permit decision had not been reached by the Department.
2. If any provision of a permit is found to be invalid, all valid parts that are severable from the invalid part remain in effect. If a provision of a permit is invalid in one or more of its applications, the provision remains in effect in all valid applications that are severable from the invalid applications.

**O. Transfer or Assignment of Ownership**

ARM 17.8, Subchapter 12, Operating Permit Program §1225(2)&(4)

1. If an administrative permit amendment involves a change in ownership or operational control, the applicant must include in its request to the Department a written agreement containing a specific date for the transfer of permit responsibility, coverage and liability between the current and new permittee.
2. The permit shield provided for in ARM17.8.1214 shall not extend to administrative permit amendments.

**P. Emissions Trading, Marketable Permits, Economic Incentives**

ARM 17.8, Subchapter 12, Operating Permit Program §1226(2)

Notwithstanding ARM 17.8.1226(1) and (7), minor air quality operating permit modification procedures may be used for permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, to the extent that such minor permit modification procedures are explicitly provided for in the Montana State Implementation Plan or in applicable requirements promulgated by the administrator.

**Q. No Property Rights Conveyed**

ARM 17.8, Subchapter 12, Operating Permit Program §1210(2)(d)

This permit does not convey any property rights of any sort, or any exclusive privilege.

**R. Testing Requirements**

ARM 17.8, Subchapter 1, General Provisions §105

The permittee shall comply with ARM 17.8.105.

**S. Source Testing Protocol**

ARM 17.8, Subchapter 1, General Provisions §106

The permittee shall comply with ARM 17.8.106.

**T. Malfunctions**

ARM 17.8, Subchapter 1, General Provisions §110

The permittee shall comply with ARM 17.8.110.

**U. Circumvention**

ARM 17.8, Subchapter 1, General Provisions §111

The permittee shall comply with ARM 17.8.111.

**V. Motor Vehicles**

ARM 17.8, Subchapter 3, Emission Standards §325

The permittee shall comply with ARM 17.8.325.

**W. Annual Emissions Inventory**

ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation and Open Burning Fees §505 (STATE ONLY)

The permittee shall supply the Department with annual production and other information for all emission units necessary to calculate actual or estimated actual amount of air pollutants emitted during each calendar year. Information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request, unless otherwise specified in this permit. Information shall be in the units required by the Department.

**X. Open Burning**

ARM 17.8, Subchapter 6, Open Burning §604, 605 and 606

The permittee shall comply with ARM 17.8.604, 605 and 606.

**Y. Montana Air Quality Permits**

ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources §745 and 764

1. Except as specified, no person shall construct, install, modify or use any air contaminant source or stack associated with any source without first obtaining a permit from the Department or Board. A permit is not required for those sources or stacks as specified by ARM 17.8.744(1)(a)-(k).
2. The permittee shall comply with ARM 17.8.743, 744, 745, 748, and 764.
3. ARM 17.8.745(1) specifies de minimis changes as construction or changed conditions of operation at a facility holding a Montana Air Quality Permit (MAQP) issued under Chapter 8 that does not increase the facility's potential to emit by more than 5 tons per year of any pollutant, except:
  - a. Any construction or changed condition that would violate any condition in the facility's existing MAQP or any applicable rule contained in Chapter 8 is prohibited, except as provided in ARM 17.8.745(2);
  - b. Any construction or changed conditions of operation that would qualify as a major modification under Subchapters 8, 9 or 10 of Chapter 8;
  - c. Any construction or changed condition of operation that would affect the plume rise or dispersion characteristic of emissions that would cause or contribute to a violation of an ambient air quality standard or ambient air increment as defined in ARM 17.8.804;

- d. Any construction or improvement project with a potential to emit more than 5 tons per year may not be artificially split into smaller projects to avoid Montana Air Quality Permitting; or
  - e. Emission reductions obtained through offsetting within a facility are not included when determining the potential emission increase from construction or changed conditions of operation, unless such reductions are made federally enforceable.
4. Any facility making a de minimis change pursuant to ARM 17.8.745(1) shall notify the Department if the change would include a change in control equipment, stack height, stack diameter, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1).

**Z. National Emission Standard for Asbestos**

40 CFR, Part 61, Subpart M

The permittee shall not conduct any asbestos abatement activities except in accordance with 40 CFR 61, Subpart M (National Emission Standard for Hazardous Air Pollutants for Asbestos).

**AA. Asbestos**

ARM 17.74, Subchapter 3, General Provisions and Subchapter 4, Fees

The permittee shall comply with ARM 17.74.301, *et seq.*, and ARM 17.74.401, *et seq.* (State only)

**BB. Stratospheric Ozone Protection – Servicing of Motor Vehicle Air Conditioners**

40 CFR, Part 82, Subpart B

If the permittee performs a service on motor vehicles and this service involves ozone-depleting substance/refrigerant in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B.

**CC. Stratospheric Ozone Protection – Recycling and Emission Reductions**

40 CFR, Part 82, Subpart F

The permittee shall comply with the standards for recycling and emission reductions in 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 §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 §82.158;
3. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technical certification program pursuant to §82.161;
4. Persons disposing of small appliances, MVACs and MVAC-like (as defined at §82.152) appliances must comply with recordkeeping requirements pursuant to §82.166;
5. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

**DD. Emergency Episode Plan**

The permittee shall comply with the requirements contained in Chapter 9.7 of the State of Montana Air Quality Control Implementation Plan.

Each major source emitting 100 tons per year located in a Priority I Air Quality Control Region, shall submit to the Department a legally enforceable Emergency Episode Action Plan (EEAP) that details how the source will curtail emissions during an air pollutant emergency episode. The industrial EEAP shall be in accordance with the Department's EEAP and shall be submitted according to a timetable developed by the Department, following Priority I reclassification.

**EE. Definitions**

Terms not otherwise defined in this permit or in the Definitions and Abbreviations Appendix of this permit, shall have the meaning assigned to them in the referenced regulations.

## APPENDICES

## APPENDIX A. INSIGNIFICANT EMISSIONS UNITS

**Disclaimer:** The information in this appendix is not State or Federally enforceable, but is presented to assist Basin Electric, the permitting authority, inspectors, and the public.

Pursuant to ARM 17.8.1201(22)(a), an insignificant emission unit means any activity or emissions unit located within a source that: (i) has a potential to emit less than five tons per year of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to section 7412 (b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to Subchapter 12.

List of Insignificant Activities:

The following table of insignificant sources and/or activities were provided by Basin Electric.

Emissions Unit ID	Description
IEU01	Haul Road Fugitive Emissions



## APPENDIX B. DEFINITIONS and ABBREVIATIONS

**"Act"** means the Clean Air Act, as amended, 42 U.S. 7401, *et seq.*

**"Administrative permit amendment"** means an air quality operating permit revision that:

- (a) corrects typographical errors;
- (b) identifies a change in the name, address or phone number of any person identified in the air quality operating permit, or identifies a similar minor administrative change at the source;
- (c) requires more frequent monitoring or reporting by Basin Electric;
- (d) requires changes in monitoring or reporting requirements that the Department deems to be no less stringent than current monitoring or reporting requirements;
- (e) allows for a change in ownership or operational control of a source if the Department has determined that no other change in the air quality operating permit is necessary, consistent with ARM 17.8.1225; or
- (f) incorporates any other type of change which the Department has determined to be similar to those revisions set forth in (a)-(e), above.

**"Applicable requirement"** means all of the following as they apply to emissions units in a source requiring an air quality operating permit (including requirements that have been promulgated or approved by the Department or the administrator through rule making at the time of issuance of the air quality operating permit, but have future-effective compliance dates, provided that such requirements apply to sources covered under the operating permit):

- (a) any standard, rule, or other requirement, including any requirement contained in a consent decree or judicial or administrative order entered into or issued by the Department, that is contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) any federally enforceable term, condition or other requirement of any Montana Air Quality Permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter, or pursuant to regulations approved or promulgated through rule making under Title I of the FCAA, including parts C and D;
- (c) any standard or other requirement under Section 7411 of the FCAA, including Section 7411(d);
- (d) any standard or other requirement under Section 7412 of the FCAA, including any requirement concerning accident prevention under Section 7412(r)(7), but excluding the contents of any risk management plan required under Section 7412(r);
- (e) any standard or other requirement of the acid rain program under Title IV of the FCAA or regulations promulgated thereunder;
- (f) any requirements established pursuant to Section 7661c(b) or Section 7414(a)(3) of the FCAA;
- (g) any standard or other requirement governing solid waste incineration, under Section 7429 of the FCAA;
- (h) any standard or other requirement for consumer and commercial products, under Section 7511b(e) of the FCAA;
- (i) any standard or other requirement for tank vessels, under Section 7511b(f) of the FCAA;

- (j) any standard or other requirement of the regulations promulgated to protect stratospheric ozone under Title VI of the FCAA, unless the administrator determines that such requirements need not be contained in an air quality operating permit;
- (k) any national ambient air quality standard or increment or visibility requirement under part C of Title I of the FCAA, but only as it would apply to temporary sources permitted pursuant to Section 7661c(e) of the FCAA; or
- (l) any federally enforceable term or condition of any air quality open burning permit issued by the Department under Subchapter 6.

**"Department"** means the Montana Department of Environmental Quality.

**"Emissions unit"** means any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Section 7412(b) of the FCAA. This term is not meant to alter or affect the definition of the term "unit" for purposes of Title IV of the FCAA.

**"FCAA"** means the Federal Clean Air Act, as amended.

**"Federally enforceable"** means all limitations and conditions which are enforceable by the administrator, including those requirements developed pursuant to 40 CFR Parts 60 and 61, requirements within the Montana state implementation plan, and any permit requirement established pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51, Subpart I, including operating permits issued under an EPA approved program that is incorporated into the Montana state implementation plan and expressly requires adherence to any permit issued under such program.

**"Fugitive emissions"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

**"General air quality operating permit" or "general permit"** means an air quality operating permit that meets the requirements of ARM 17.8.1222, covers multiple sources in a source category, and is issued in lieu of individual permits being issued to each source.

**"Hazardous air pollutant"** means any air pollutant listed as a hazardous air pollutant pursuant to Section 112(b) of the FCAA.

**"Non-federally enforceable requirement"** means the following as they apply to emissions units in a source requiring an air quality operating permit:

- (a) any standard, rule, or other requirement, including any requirement contained in a consent decree, or judicial or administrative order entered into or issued by the Department, that is not contained in the Montana state implementation plan approved or promulgated by the administrator through rule making under Title I of the FCAA;
- (b) any term, condition or other requirement contained in any Montana Air Quality Permit issued by the Department under Subchapters 7, 8, 9 and 10 of this chapter that is not federally enforceable;
- (c) does not include any Montana ambient air quality standard contained in Subchapter 2 of this chapter.

**"Permittee"** means the owner or operator of any source subject to the permitting requirements of this subchapter, as provided in ARM 17.8.1204, that holds a valid air quality operating permit or has submitted a timely and complete permit application for issuance, renewal, amendment, or modification pursuant to this subchapter.

**"Regulated air pollutant"** means the following:

- (a) nitrogen oxides or any volatile organic compounds;
- (b) any pollutant for which a national ambient air quality standard has been promulgated;
- (c) any pollutant that is subject to any standard promulgated under Section 7411 of the FCAA;
- (d) any Class I or II substance subject to a standard promulgated under or established by Title VI of the FCAA; or
- (e) any pollutant subject to a standard or other requirement established or promulgated under Section 7412 of the FCAA, including but not limited to the following:
  - (i) any pollutant subject to requirements under Section 7412(j) of the FCAA. If the administrator fails to promulgate a standard by the date established in Section 7412(e) of the FCAA, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established in Section 7412(e) of the FCAA;
  - (ii) any pollutant for which the requirements of Section 7412(g)(2) of the FCAA have been met but only with respect to the individual source subject to Section 7412(g)(2) requirement.

**"Responsible official"** means one of the following:

- (a) For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
  - (i) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
  - (ii) the delegation of authority to such representative is approved in advance by the Department.
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.
- (c) For a municipality, state, federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of the environmental protection agency).
- (d) For affected sources: the designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder are concerned, and the designated representative for any other purposes under this subchapter.

## Abbreviations:

ARM	Administrative Rules of Montana
ASTM	American Society of Testing Materials
BACT	Best Available Control Technology
BDT	bone dry tons
BTU	British Thermal Unit
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic foot
dscfm	dry standard cubic foot per minute
EEAP	Emergency Episode Action Plan
EPA	U.S. Environmental Protection Agency
EPA Method	Test methods contained in 40 CFR 60, Appendix A
EU	emissions unit
FCAA	Federal Clean Air Act
gr	grains
HAP	hazardous air pollutant
IEU	insignificant emissions unit
Mbdft	thousand board feet
Method 5	40 CFR 60, Appendix A, Method 5
Method 9	40 CFR 60, Appendix A, Method 9
MMbdft	million board feet
MMBTU	million British Thermal Units
NO <sub>x</sub>	oxides of nitrogen
NO <sub>2</sub>	nitrogen dioxide
O <sub>2</sub>	oxygen
Pb	lead
PM	particulate matter
PM10	particulate matter less than 10 microns in size
psi	pounds per square inch
scf	standard cubic feet
SIC	Source Industrial Classification
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	oxides of sulfur
tpy	tons per year
U.S.C.	United States Code
VE	visible emissions
VOC	volatile organic compound

## APPENDIX C. NOTIFICATION ADDRESSES

### Compliance Notifications:

Montana Department of Environmental Quality  
Air, Energy & Mining Division  
Air Quality Bureau  
P.O. Box 200901 Helena, MT 59620-0901

United States EPA  
Air Program Coordinator  
Region VIII, Montana Office  
10 W. 15<sup>th</sup> Street, Suite 3200  
Helena, MT 59626

### Permit Modifications:

Montana Department of Environmental Quality  
Air, Energy & Mining Division  
Air Quality Bureau  
P.O. Box 200901  
Helena, MT 59620-0901

Office of Partnerships and Regulatory Assistance  
Air and Radiation Program  
US EPA Region VIII 8P-AR  
1595 Wynkoop Street  
Denver, CO 80202-1129

## APPENDIX D. AIR QUALITY INSPECTOR INFORMATION

**Disclaimer:** The information in this appendix is not State or Federally enforceable, but is presented to assist Basin Electric, permitting authority, inspectors, and the public.

- 1. Direction to Plant:** The station is located 7 miles northeast of Culbertson, Montana. Go north on Route 16 approximately 4.5 miles, turn east (right) on a gravel road and travel 4.8 miles, turn south (right) on section-line gravel road. Basin Creek is situated on the left side of the southbound section-line gravel road, diagonally southeast across the road from Northern Border Compressor Station #3.
- 2. Safety Equipment Required:** Hardhat, steel-toed shoes/boots, and hearing protection are required at the facility. A Basin Electric employee will conduct a safety briefing for any inspector prior to entering the plant area.
- 3. Facility Plot Plan:**



## APPENDIX E. ACID RAIN APPLICATION





# Acid Rain Permit Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31

This submission is:  New  Revised

## STEP 1

Identify the source by  
plant name, State, and  
ORIS code.

Culbertson Generating Station

## STEP 2

Enter the unit ID#  
for every affected  
unit at the affected  
source in column "a."  
For new units, enter the  
requested information in  
columns "c" and "d."

a	b	c	d
Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1)	New Units Commence Operation Date	New Units Monitor Certification Deadline
CT01	Yes	11/30/2009	02/10/2010
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

**STEP 3****Read the  
standard  
requirements****Permit Requirements**

- (1) The designated representative of each affected source and each affected unit at the source shall:
- (i) 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
  - (ii) 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:
- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
  - (ii) 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 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 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 source shall:
- (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another affected unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; 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.

STEP 3,  
Cont'd.

**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.

**Excess Emissions Requirements**

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

Step 3,  
Cont'd.**Liability, Cont'd.**

- (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. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO<sub>x</sub> averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 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.

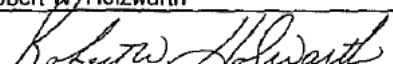
**Effect on Other Authorities**

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 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 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 Robert W Holzwarth	
Signature 	Date 08/21/08

EPA Form 7610-16 (rev. 12-03)

## APPENDIX F. CAM PLAN

## COMPLIANCE ASSURANCE MONITORING

### Oxidation Catalyst for CO Control (EU001) Compliance Assurance Monitoring Plan

**Background:** The following Compliance Assurance Monitoring (CAM) plan was proposed by Basin Electric Power Cooperative for Operating Permit #OP4256-03.

#### Emissions Unit EU001 - Combustion Turbine

Description: General Electric LMS100 Natural Gas-Fired Simple Cycle Combustion Turbine (100 MW)

Identification: EU001 (From Operating Permit OP4256-02)

#### Applicable Regulations, Emission Limit, and Monitoring

##### Requirements

##### Carbon Monoxide (CO)

Requirement: Montana Air Quality Operating Permit Number OP4256-02

Emission Limit: 21.50 lbs CO/hr 3-hour average

Monitoring Requirements: Administrative Rules of Montana Chapter 17.8 Air Quality, Subchapter 15 Compliance Assurance Monitoring

**Control Technology:** Oxidation Catalyst

#### Monitoring Approach:

The key elements of the monitoring approach are presented in the following table. Engine exhaust temperature prior to and exiting the catalyst shall be measured and recorded during unit operation. Additionally, catalyst inspections will be performed in accordance with the manufacturer's specifications, or more frequently when Unit outages/maintenance allow. A Continuous Emissions Monitoring System (CEMS) will be used to measure exhaust gas CO concentrations following the catalyst.

	Indicator No. 1: Temperature Monitoring	Indicator No. 2: Continuous Emissions Monitoring System (CEMS)
I. Indicator	Temperature of exhaust gas into the catalyst.	CEMS measured CO exhaust concentration.
Measurement Approach	Temperature of exhaust gas into the catalyst is monitored at the stack using thermocouples. There is only a minor temperature change across the catalyst.	Engine exhaust measured at the stack outlet following the CO catalyst.
II. Indicator Range	Temperature of the exhaust gas prior to the catalyst shall be maintained between 350°F (177°C) and 1000°F (538°C) during unit operation.	Equal or less than 21.50 lb/hr based on a 3-hour average.
III. Performance Criteria		
A. Data Representativeness	Temperature of exhaust gas into the catalyst is monitored at inlet using thermocouples.	Performance Testing and CEM System monitoring under 40 CFR Parts 60 and 75.
B. QA/QC Practices and Criteria	Thermocouples calibrated per manufacturer's specifications.	Performance Testing and CEM System monitoring under 40 CFR Parts 60 and 75.
C. Monitoring Frequency	Temperature is monitored and recorded once per day during unit operation.	Continuous during Unit operations.
Data Collection Procedures	Temperature data will be recorded during unit operation using either log sheets or a data acquisition system. No observation required for days when engine does not operate.	CEM System monitoring under 40 CFR Parts 60 and 75, data collection and retention requirements.
Averaging period	None.	Hourly values used to obtain a 3-hour average

### Response to Excursion:

Excursions of the catalyst inlet temperature range or permitted emission rate will trigger an inspection, possible corrective action, and reporting. Maintenance personnel will inspect the catalysts within 24 hours of receiving notification and make needed repairs as soon as practicable. Operation will return to normal upon completed corrective action.

## **Monitoring Approach Justification:**

### Background

The Culbertson Generating Station facility is an electrical generation plant consisting of a single simple cycle natural gas turbine rated for a maximum of 100 MW generation.

This CAM Plan is a pollutant-specific plan for control of CO from EU001 (LMS100 Natural Gas Turbine). This plan describes the compliance assurance monitoring strategy for CO emissions using an oxidation catalyst. The monitoring approach outlined here applies to the oxidation catalyst system used on the natural gas-fired engine (EU001). The reduction reaction does not take place properly if the temperature of the engine exhaust gas into the catalyst system is too low or too high.

### Rationale for Selection the of Performance Indicators

The combustion turbine exhaust temperature is currently monitored and serves as an accurate indicator of the engine exhaust temperature. Monitoring this temperature will assure that the oxidation catalyst inlet temperature is in a range that will allow the catalyst to operate effectively. Additionally, the stack exhaust downstream of the catalyst is monitored to record CO emissions. The results of the CO CEM system readings and performance monitoring indicate the oxidation catalyst was performing sufficiently to enable Culbertson Station to meet its CO emission limits. The proposed temperature monitoring plan with CEMS will ensure that the oxidation catalyst will be operating in an ideal temperature range for optimal CO destruction.

The CEMS will ensure that the catalyst is in good, working order. By verifying that the catalyst is in good condition through continuous monitoring, it ensures that exhaust gas is being reduced to levels below permitted rates.

### Rationale for Selection of Temperature Indicator Range

Temperatures that are too low will result in a reduction of the chemical reactions that destruct CO. Temperatures that are too high will result in sintering of the catalyst. The temperature range proposed is also in line with the temperature range specified in the proposed 40 CFR 63 Subpart ZZZZ regulations. The semi-annual inspection criteria were developed by the catalyst manufacturer in order to maintain the catalyst in good working order. The manufacturer developed plan was determined to be the best possible plan for ensuring catalyst performance.