

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Permitting and Compliance Division
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Helena, Montana 59620-0901**

**Montana-Dakota Utilities Co.
Lewis and Clark Station
Southwest ¼, Section 9, Township 22 North, Range 59 East
400 North Fourth Street
Bismarck, ND 58501**

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

| Facility Compliance Requirements | Yes | No | Comments |
|--|------------|-----------|--|
| Source Tests Required | X | | Method 5 and 9 |
| Ambient Monitoring Required | | X | NA |
| Continuous Opacity Monitoring System (COMS) Required | X | | Predictive |
| Continuous Emission Monitoring System (CEMS) Required | X | | SO ₂ and NO _x |
| Schedule of Compliance Required | | X | |
| Annual Compliance Certification and Semiannual Reporting Required | X | | As Applicable |
| Monthly Reporting Required | | X | |
| Quarterly Reporting Required | X | | Predictive Opacity |
| Applicable Air Quality Programs | | | |
| ARM Subchapter 7 Montana Air Quality Permitting | X | | Montana Air Quality Permit (MAQP) #0691-01 |
| New Source Performance Standards (NSPS) | | X | |
| National Emission Standards for Hazardous Air Pollutants (NESHAPS) | | X | Except 40 CFR 61, Subpart M |
| Maximum Achievable Control Technology (MACT) | X | | 40 CFR 63, Subpart CCCCCC |
| Major New Source Review (NSR) | | X | |
| Risk Management Plan Required (RMP) | | X | |
| Acid Rain Title IV | X | | Appendix H |
| State Implementation Plan (SIP) | X | | General SIP |
| Compliance Assurance Monitoring (CAM) | X | | Appendix I |

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emissions units affected by the operating permit proposed for this facility. The document is intended for reference during review of the draft and proposed permits by the EPA and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Montana-Dakota Utilities (MDU) on June 10, 1996; additional submittals on October 10, 1996, and April 11, 1997; the permit renewal application submitted June 26, 2002; the CAM Plan submittal on September 15, 2003; the permit renewal application submitted October 9, 2008; and the Montana Air Quality Permit (MAQP) application for mercury control requirements deemed complete on November 26, 2008, the administrative amendment requests received on May 24, 2010 and August 31, 2010, and supporting correspondence.

B. Facility Location

MDU operates the Lewis and Clark Station consisting of a tangential coal fired boiler capable of burning coal or natural gas and associated equipment for generation of electricity. The MDU Lewis and Clark Station is located in the Southwest ¼ of Section 9, Township 22 North, Range 59 East, Richland County, Montana.

C. Facility Background Information

Montana Air Quality Permit (MAQP) History

MDU received a Montana air quality permit given number 691-031074 issued February 14, 1974. This permit authorized the construction of a wet scrubber for the boiler (Unit 1). The scrubber constructed was a venturi flooded disc scrubber.

On February 25, 2009, the Department of Environmental Quality (Department) issued **MAQP #0691-00**. Unit 1 and associated equipment are not required to have an MAQP as defined in Administrative Rules of Montana (ARM) 17.8.743. Unit 1 was in operation before November 23, 1968, and has not undergone modification resulting in an increase of the potential to emit of more than 25 tons per year (tpy) of any regulated airborne pollutant. However, the facility is subject to mercury emission limitations under ARM 17.8.771. MAQP #0691-00 establishes a mercury emission limit and associated operating requirements for the boiler in order to comply with ARM 17.8.771.

On March 27, 2009, the Department received a request from MDU to amend Attachment 2 of MAQP #0691-00. Subsequent to the issuance of MAQP #0691-00, the Department determined that additional changes to Attachment 2 may be appropriate based on further consideration and internal discussion of MDU's previous comments, as well as the Department's needs with respect to the mercury monitoring requirements as listed in Attachment 2. Specifically, the current permit action amends Attachment 2 to remove the requirements to report the total ounces of mercury (for both the reporting quarter and the calendar year to date) as well as the total heat input of the Boiler for each month of the quarter and the calendar year to date. **MAQP #0691-01** was final on April 25, 2009, and replaced MAQP #0691-00.

Title V Operating Permit History

On January 1, 1998, MDU was issued final and effective, **Operating Permit #OP0691-00**. The permit expired on December 31, 2002.

On June 26, 2002, the Department received an application from MDU for permit renewal. The application was deemed administratively and technically complete on July 26, 2002.

After review of the application for permit renewal and in accordance with current Department protocol for Title V operating permit rules and requirements, the Department determined that several emitting units included in Operating Permit #OP0691-00 as significant emitting units are actually insignificant emitting units subject to only generally applicable requirements. Therefore, the following significant emitting units, as cited in Operating Permit #OP0691-00, were placed on the insignificant emitting unit list for Operating Permit renewal #OP0691-01:

- IEU02 – Heating Boiler
- IEU03 – Diesel Fire Pump Engine
- IEU04 – Emergency Generator
- IEU06 – Fuel Storage Tank
- IEU09 – Coal Tripper House
- IEU10 – Lime Storage Silo
- IEU11 – Plant Roads

Permit #OP0691-01 was drafted on May 9, 2003. On September 15, 2003, the Department received a Compliance Assurance Monitoring Plan (CAM Plan) from MDU as specified in ARM 17.8.1507 and 17.8.1508. Because this applicable requirement was not included in the Draft #OP0691-01, the permit was redrafted as Permit #OP0691-02. **Operating Permit #OP0691-02** replaced Operating Permit #OP0691-00.

On October 6, 2008, the Department received an application for renewal of Operating Permit #OP0691-02. The renewal application was assigned Operating Permit #OP0691-03. In addition, this action includes the significant modification to MDU's Title V Operating Permit with respect to the mercury emission requirements included in MAQP #0691-00 and #0691-01. The significant modification was assigned Operating Permit #OP0691-04. Therefore, the current permit action combines #OP0691-03 and #OP0691-04 to renew Operating Permit #OP0691-02 and incorporate new applicable requirements with respect to mercury. The current permit action will be issued as **Operating Permit #OP0691-04**. Operating Permit #OP0691-04 replaced Operating Permit #OP0691-02.

D. Current Permit Action

On May 24, 2010, the Department received a letter from MDU requesting clarifications and correction of typographical errors. MDU requested the removal of an opacity compliance requirement in the Operating Permit for Emitting Unit #06, a small gasoline storage tank. MDU also requested clarification of the QA/QC practices of Indicator #5, Flue Gas Temperature, in the CAM Plan summarized in Table 1 of Appendix I of the Operating Permit. MDU also requested that typographical errors be corrected. The requirements in Section III.D.8.b and Section III.E.8.b reference requirements in Section III.C.5 and Section III.D.5, respectively. MDU requested these references be changed to Section III.D.5 and III.E.5, respectively, as well as correcting the numbering of Section V to begin with the letter A, and then proceed alphabetically thereafter.

The Department agreed with all requests. With applicable opacity requirements already listed in the Facility Wide permit conditions, the Department agreed that addition of the requirement in Section III.C, specific to the storage tank, is unnecessary. The QA/QC requirements for Indicator #5 of the CAM plan was updated to specify that “an outage” was intended to mean “one outage per year”, and the typographical errors were fixed as requested. The Department determined all requests were Administrative in nature. **Operating Permit #OP0691-05** replaces Operating Permit #OP0691-04.

E. Taking and Damaging Analysis

House Bill (HB) 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency’s administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 2-10-105, Montana Code Annotated (MCA), the Department conducted the following private property taking and damaging assessment.

| YES | NO | |
|-----|----|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)]. |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |
| | X | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |
| | X | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

F. Compliance Designation

The facility was last inspected on June 9, 2010. The Department's observations during the inspection verified compliance with the observable applicable requirements of MAQOP #0691-04.

The facility was also inspected on October 9, 2007, and was found to be in compliance with all observable Department regulations and permit conditions. Preceding inspections were conducted on June 16, 2004; August 28, 2002; June 12, 2001; August 10-19, 1999; and February 24, 1999. The inspection reports indicate compliance with all observable Department regulations and permit conditions for the facility.

MDU performed two particulate matter stack tests during calendar year 2006 as required by an Administrative Order of Consent (AOC) established in 2004 after a failed particulate stack test and a resulting Violation Letter. The second test in 2006 was conducted on August 30 and 31 of that year and completed the activities required by the AOC.

On October 25, 2007, the Department issued Warning Letter #WLHR07-30 to MDU following the receipt of a particulate stack test report that had been certified to be complete and accurate but that had not reported that one of the test runs had failed due to an unacceptable equipment leak. MDU submitted an amended test report on October 16, 2007, that corrected the report errors and the Department determined the matter to be resolved.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

MDU – Lewis and Clark Station operates a tangential coal and natural gas fired boiler capable of burning coal or natural gas and associated equipment for the generation of electricity.

B. Emission Units and Pollution Control Device Identification

| Emissions Unit ID | Description | Pollution Control Device/Practice |
|-------------------|--|---|
| EU01 | Tangential Coal and Natural Gas Fired Boiler | Multi-Cyclone and Flooded Disc Wet Scrubber |
| EU06 | Fuel (gasoline) Storage Tank | None |
| EU07 | Coal Storage Piles | Water-dust suppression |
| EU08 | Fugitive Coal Ash & Lime Handling Emissions | Enclosure/Fabric filter baghouse |

EU01 (Tangential Coal and Natural Gas Fired Boiler) has burned mostly lignite coal and natural gas in the past, but can burn a mixture of coals. There are no applicable requirements that limit the type of coal combusted in the unit. Before 1996, the boiler exhaust gases could exhaust through the main stack or in cases as necessary through a bypass stack. MDU locked off the bypass stack in 1995 and no longer uses it since the bypass stack does not have the required 40 CFR 75 monitors. This has resulted in the operation procedure that when the scrubber trips, the boiler shuts down. Beginning January 1, 2010, EU01 shall install an oxidizing agent injection (OAI) system and an activated carbon injection (ACI) system to maintain compliance with the 1.5 pounds mercury per trillion British thermal units (lb/TBtu) mercury emission limit.

EU06 (Fuel Storage Tank) is considered a significant emission unit because the unit is subject to applicable requirements contained in 40 CFR 63 Subpart CCCCCC. It meets the definition of a gasoline dispensing facility with a monthly throughput of less than 10,000 gallons.

EU07 (Coal Storage Piles), both active and inactive, are considered significant emitting units because the potential to emit is greater than 5 tons per year. The control practice for the coal storage piles (both active and reserve) is water-dust suppression.

EU08 (Fugitive Coal, Ash & Lime Handling Emissions), has the potential to emit greater than 5 tons per year of fugitive emissions, therefore, is considered a significant emissions unit. The control measures are enclosures and a fabric filter baghouse in a closed loop system.

C. Categorically Insignificant Sources/Activities

ARM 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by any applicable requirement other than a generally applicable requirement. The following is a list of the emission units that are included as insignificant in MDU's draft operating permit.

| Emissions Unit ID | Description |
|--------------------------|---------------------------------------|
| IEU02 | Heating Boiler |
| IEU03 | Diesel Fire Pump Engine |
| IEU04 | Emergency Generator |
| IEU05 | Miscellaneous Space Heaters |
| IEU09 | Coal Tripper House |
| IEU10 | Lime Storage Silo |
| IEU11 | Plant Roads |
| IEU12 | Vehicle Air Conditioning |
| IEU13 | Activated Carbon Injection Silo |
| IEU14 | Coal Conveyor Dust Collection Devices |

IEU02 (Natural Gas Heating Boiler) in the original application was listed as a significant emitting unit presumably for total particulate PTE of 16.6 tpy. After recalculating the PTE, using emission factors from AP-42, Table 1.4-2, the Department determined the natural gas heating boiler to be an insignificant emitting unit based on the PTE of 0.028 tons per year.

IEU03 (Diesel Fire Pump Engine) and IEU04 (Emergency Generator) were submitted as insignificant emitting units in the original application, but placed in Operating Permit #OP0691-00 as significant emitting units. The Department reviewed the units' emissions, and determined the diesel fire pump engine and the emergency generator are insignificant units according to the definition in ARM 17.8.1201(22)(a).

IEU05 (Miscellaneous Space Heaters) is considered insignificant since each heater has emission well below 5 tons per year of criteria pollutants and 1 pound per year of HAPS. The heaters are each less than 500,000 BTU per hour. The only rules that apply are ARM 17.8.304, 309, and 322, but due to the combustion of natural gas, the emissions are minimal.

IEU09 (Coal Bunker System) in the original application was included with EU05. Since the emissions unit is controlled by a baghouse, it was determined the unit was a distinct unit and should be treated as a separate emissions unit. In the supplemental information to the application, MDU provided the necessary information to determine which applicable requirements apply to this emissions unit. The coal bunker system consists of the enclosure directly above the three coal storage bunkers known as the Coal Tripper House. The enclosure is penetrated by the head end of conveyor #2 to the south. The discharge of the baghouse is into the enclosed structure above the storage silos. The baghouse has a force air filtration system, which pulls the displaced air from the silos and the conveyor area to control particulate emissions.

IEU10 (Lime Storage Silo) was included in the supplementary information submitted by MDU on April 11, 1997. The unit is controlled by a baghouse in a closed-loop system, and by enclosures. MDU receives approximately 150 tons per year of lime.

IEU11 (Plant Roads) emissions do not include any emissions for transferring coal.

IEU12 was included in the application as a significant emissions unit based on information received April 11, 1997. For purposes of the operating permit, the requirements that pertain to the IEU12 are contained in Section V., General Conditions under the stratospheric ozone requirements. Therefore, IEU12 does not have a table or associated conditions in Section III of the operating permit. At MDU, the maintenance of vehicles is performed by a certified dealer for repair and the building system repairs are contracted with a local certified repair service.

IEU13 (Activated Carbon Injection Silo)

IEU14 (Coal Conveyor Dust Collection Devices)

The coal hauling operations are not included in the operating permit. These operations are performed by an independent company. The independent company provides all the equipment necessary to deliver the coal and place it on the active stockpile. All trucks, unloading hopper, and stockpile conveyor are owned by the independent company. MDU takes ownership of the coal from the active coal stockpile and transports the coal to the plant. MDU's coal handling activities are addressed as part of EU8.

SECTION III. PERMIT TERMS

A. Emission Limits and Standards

The following is a discussion of some proposed applicable requirements:

1. The Phase II Acid Rain permit requirements for SO₂ have been included in this operating permit.
2. MDU submitted a Phase I Acid Rain Permit Application, NO_x Compliance Plan to EPA Region VIII in October 1996. The application was submitted according to the requirements of 40 CFR §76.9 for an early election unit with a deadline of submittal of January 1, 1997. The MDU - Lewis and Clark Station boiler is a Group 1, Phase II boiler. MDU will be required to comply with the emission limit of 0.45 lb/mmBtu of heat input on an annual average basis for tangentially fired boilers (40 CFR §76.5) beginning January 1, 1997, and ending on December 31, 2007.

In accordance with 40 CFR §76.8(d)(1)(ii), EPA is responsible for issuing the early NO_x reduction permit. The state has not been delegated this authority. Under 40 CFR §72.73(b)(2), the Department is required to include not later than January 1, 1999, the acid rain permit requirements for nitrogen oxides. Since these requirements have already been incorporated into the initial operating permit, the Department will not need to re-open the acid rain/operating permit. The company under the current requirements of 40 CFR §76.9(b) must still submit a Phase II NO_x permit application by January 1, 1998.

Although not included in the operating permit, the permitting must still comply with the requirements contained in the Phase I early election permit issued by EPA Region VIII until its expiration date. Compliance with the Phase I permit will be handled by EPA.

MDU demonstrated compliance with the applicable emissions limitations during the Early Election Program, which expired December 31, 2007. In accordance with 40 CFR 76.7, the NO_x emission limit beginning January 1, 2008 is 0.40 lb/MMBtu on an annual average basis. Compliance with the limit is demonstrated through the use of a CEMS.

3. MDU is required by 40 CFR Part 51, Appendix P to monitor opacity. Since the boiler is controlled with a wet scrubber, it was determined an opacity monitor would not provide accurate data. As an alternative, MDU developed a predictive opacity procedure and submitted the final report and equations on April 23, 1991. The key aspects of the plan are contained in the Predictive Opacity Appendix to the operating permit. As part of the plan developed to monitor opacity, MDU performs calculations to determine the “cleanness” of the disk based on predicted disk position. Deviations from the predicted disk position flags when increased emissions are probable due to a suspected ash buildup around the flooded disk. The information from the disk position is used internally by MDU. The equations to calculate the cleanliness of the disk were modified in April 1997 to address changes due to the low NO_x modifications, which occurred the end of 1996. MDU uses the scrubber differential pressure and to calculate the predicted opacity for compliance with the opacity requirement. These equations are not included in the operating permit since they are subject to change. The permit requires that prior to making a change to the equations, MDU must notify the Department. This will assure the Department is aware of any changes and has an opportunity to review the changes made.

4. MDU is required by the operating permit and a letter of agreement from the Department to use the continuous emissions monitoring system (CEMS) on the exhaust gas stream from the EU1 to determine compliance with ARM 17.8.322. The rule limits the amount of sulfur in the fuel to 1 lb of sulfur/MMBTU. The Department will allow MDU to measure the exhaust gas stream and demonstrate compliance with the limit by showing emissions do not exceed 2 lbs. of SO₂/mmBtu from the emissions unit. The SO₂ monitor on EU1 has a range of 0 ppm to 500 ppm. The span for the monitor is 0 ppm to 400 ppm. MDU performed the high end calibration at 400 ppm. This range and span was agreed to by the Department and the EPA because the wet scrubber scrubs 100% of the flue gas 100% of the time. For the first quarter of 1996, the maximum concentration measured by the monitor was approximately 320 ppm and the average monitored value was 141 ppm. These values have remained fairly consistent over the entire year and into 1997.

The flow monitor on the EU1 stack has a range of 18,000,000 scfh. Based on calculations of the normal volume, MDU has the potential to exceed the range of the SO₂ monitor. The following calculations show that the potential exceedance could in theory occur.

$$(2 \text{ lbs of SO}_2/\text{MMBtu}) (600 \text{ MMBtu/hr}) = 1,200 \text{ lbs of SO}_2 / \text{hr}$$
$$(1,200 \text{ lbs of SO}_2/\text{hr}) / [(\text{molecular weight of SO}_2)(\text{volume})(28.317 \text{ liters/cubic foot})$$
$$(1 \text{ mole}/24.04 \text{ liters})(1 \text{ liter}/1,000,000 \text{ micro liters})(1 \text{ lb}/453.6 \text{ grams})] = \text{ppm}$$

$$(1,200 \text{ lbs of SO}_2/\text{hr}) / [(64)(13,500,000)(28.317)(1/24.04)(1/1,000,000)(1/453.6)] =$$
$$583.9 \text{ ppm}$$

MDU and the Department do not expect to see any exceedances of the monitor range due to the design of the boiler and scrubber. Since the monitor may not be able to measure a violation of 2 lbs of SO₂/mmBtu, the Department has required that any exceedance of the monitor range be considered an SO₂ emission violation. MDU has agreed to this requirement and it is contained in the SO₂ appendix to the operating permit. If in the future, MDU changes the range on the monitor and requests a change to the permit, the Department will review the request.

5. MDU is required by ARM 17.8.771 to meet a 1.5 lb/TBtu emission limit. To meet this limit, MDU is required to install and operate an oxidizing agent injection (OAI) system and an activated carbon injection (ACI) system on or before January 1, 2010. In addition, MDU will monitor compliance with the mercury emission limit with a mercury emissions monitoring system (MEMS) which shall be installed, certified, and operating on the Unit 1 stack outlet on or before January 1, 2010.

B. Monitoring Requirements

ARM 17.8.1212(1) requires monitoring be contained in the permit. It requires the monitoring required under an applicable requirement or when the applicable requirement does not contain periodic monitoring, it requires the use of monitoring “sufficient to yield reliable data” that are representative of the source’s compliance with the air quality operating permit. ARM 17.8.1213(7) provides that each permit must contain requirements for certification of compliance with “the terms and conditions contained in the permit.” The operating permit shield provides that compliance with the monitoring requirements in the operating permit constitute compliance with all monitoring requirements of the FCAA. The permittee can rely on the results of periodic monitoring to certify compliance, but this does not prohibit the use of other approved methods for determining compliance with an applicable emission limit or requirement.

ARM 17.8, Subchapter 15, Compliance Assurance Monitoring (CAM) applies to MDU's Lewis and Clark Station facility. As indicated in ARM 17.8.1503(2)(c), the CAM rule is satisfied for NO_x and SO₂ under the Acid Rain provisions set forth in Appendix H of MDU's Title V Operating Permit #OP0691-01. However, MDU Lewis & Clark is subject to CAM for PM as set forth in the CAM plan submitted by MDU. Appendix I of MDU's Title V Operating Permit #OP0691-03 summarizes the CAM plan. A full CAM plan is available upon request by contacting the facility or the Department.

ARM 17.8.771, Mercury Emission Standards for Mercury-Emitting Generating Units, applies to the MDU Lewis and Clark Station. This rule requires mercury monitoring be conducted by MDU. Mercury monitoring provisions are contained in the Title V operating permit and outlined in Appendix J of Operating Permit #OP0691-03.

C. Test Methods and Procedures

This operating permit contains requirements for performing Method 9, Method 5 and Method 5A tests as required by the Department. Method 9, Method 5, and Method 5A tests must be performed in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106). Each observation period must be a minimum of 6 minutes unless any one reading is 20% or greater, then the observation period must be a minimum of 20 minutes or until a violation of the standard has been documented, whichever is a shorter period of time.

D. Recordkeeping Requirements

The recordkeeping provisions shall be sufficient to meet the provisions of the monitoring requirements and shall include, as necessary, the installation, use, and maintenance of the monitoring equipment or methods. The following information shall also be provided as necessary: the date the analyses were performed, the place and time of the sampling, the company or entity performing the sampling, the analytical techniques or methods used, the results of such analyses, and the operating conditions at the time of the analyses. Retention of the records of all required monitoring data and support information shall be for a period of at least five years from the date of measurement. Support information includes all calibration and maintenance records and copies of all reports required by the operating permit.

E. Reporting Requirements

MDU is required to submit, to the Department, reports of any required monitoring at least every 6 months and to annually certify compliance with the applicable requirements contained in the permit. All deviations from permit requirements must be clearly identified in these reports. All reports must be certified by a responsible official. The permittee is also required to promptly report any deviations from the permit requirements due to upset conditions and the probable cause of the upset condition along with any corrective actions or preventive measures taken.

F. Public Notice

No public notice is required for the current permit action as the Department determined this action to be Administrative in nature.

SECTION IV. NON-APPLICABLE REQUIREMENTS ANALYSIS

Section IV of the operating permit, “Non-applicable Requirements”, contains the requirements that the Department previously determined were non-applicable.

The current action is administrative, therefore, no requests were made regarding any non-applicable requirements and additional analyses were not conducted. Section V, Future Permit Considerations, contains information regarding potentially applicable and non applicable rules which are currently being promulgated.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

In the renewal application, OP0691-03, MDU provided calculations to demonstrate the facility does not have a PTE greater than 10 TPY of any individual hazardous air pollutant (HAP) or a PTE greater than 25 TPY of total HAP. Therefore, the facility is not considered a major source of HAP. As an area source, MDU is currently subject to a MACT standard. The MACT standard applicable to this facility is 40 CFR 63, Subpart CCCCCC.

40 CFR 63 Subpart DDDDD and JJJJJ:

40 CFR 63 Subpart DDDDD originally (69 FR 55253, Sept. 13, 2004) established national emission limits and work practice standards for hazardous air pollutants emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also established requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards. Pursuant to 40 CFR 63.7491(c), an electric utility steam generating unit (including a unit covered by 40 CFR part 60, subpart Da) or a Mercury (Hg) Budget unit covered by 40 CFR part 60, subpart HHHH, was not subject to this subpart.

However, this rule has been vacated, and newly proposed rules were published on June 4, 2010. This action will likely affect this facility. The newly proposed rules, which would replace the current 40 CFR 63 Subpart DDDDD, are as follows:

- 1) 40 CFR, Part 63, Subpart DDDDD, NESHAPS for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Source Facilities (Boiler MACT Major Sources), and
- 2) 40 CFR, Part 63, Subpart JJJJJ, NESHAPS for Industrial, Commercial, and Institutional Boilers at Area Source Facilities (Boiler MACT Area Sources)

B. Risk Management Plans

A Risk Management Plan as defined in 40 CFR Part 68 is not required for the MDU Lewis and Clark Station based on information provided by MDU on April 11, 1997, and June 26, 2002. MDU does not currently store any regulated substances which exceed the threshold quantities. If in the future, the materials stored at MDU change or the thresholds change, MDU may need to comply with Part 68.

C. NESHAPS Standards

As of the issuance date of this permit, the Department is aware of future NESHAP Standards that may be promulgated that will affect this facility. These MACT standards are discussed in Section V.A above.

NESHAP Standard 40 CFR 61, Subpart M does apply to the facility at this time.

D. NSPS Standards

As of the issuance date of this permit, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

E. CAM Applicability

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (other than emission limits or standards proposed after November 15, 1990, since these regulations contain specific monitoring requirements);
- The emitting unit uses a control device to achieve compliance with such limit; and
- The emitting unit has potential pre-control device emissions of the applicable regulated air pollutant that are greater than major source thresholds.

MDU has one emitting unit which meets the above criteria, EU1 (Tangential Coal-Fired Boiler). An overview of the CAM plan is provided in Appendix I of the Operating Permit.

F. Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas Tailoring Rule

On May 7, 2010, EPA published the “light duty vehicle rule” (Docket # EPA-HQ-OAR- 2009-0472, 75 FR 25324) controlling greenhouse gas (GHG) emissions from mobile sources, whereby GHG became a pollutant subject to regulation under the Federal and Montana Clean Air Act(s). On June 3, 2010, EPA promulgated the GHG “Tailoring Rule” (Docket # EPA-HQ-OAR-2009-0517, 75 FR 31514) which modified 40 CFR Parts 51, 52, 70, and 71 to specify which facilities are subject to GHG permitting requirements and when such facilities become subject to regulation for GHG under the PSD and Title V programs.

Under the Tailoring Rule, any PSD action (either a new major stationary source or a major modification at a major stationary source) taken for a pollutant or pollutants other than GHG that was not final prior to January 2, 2011, would be subject to PSD permitting requirements for GHG if the GHG increases associated with that action were at or above 75,000 tons per year (tpy) of carbon dioxide equivalent (CO_{2e}). Similarly, if such action were taken, any resulting requirements would be subject to inclusion in the Title V Operating Permit. Starting on July 1, 2011, PSD permitting requirements would be triggered for modifications that were determined to be major under PSD based on GHG emissions alone, even if no other pollutant triggered a major modification. In addition, sources that exceed the 100,000 tpy CO_{2e} threshold under Title V would be required to obtain a Title V Operating Permit if they were not already subject.

Based on information provided by MDU and calculations performed by the Department, the MDU Lewis and Clark Station’s potential emissions for the current listed emitting units exceed the GHG major source threshold of 100,000 tpy of CO_{2e} for both Title V and PSD under the Tailoring Rule. Therefore, MDU may be subject to GHG permitting requirements in the future.