MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
TITLE V OPERATING PERMIT TECHNICAL REVIEW DOCUMENT

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Williston Basin Interstate Pipeline Company
Little Beaver Compressor Station
P.O. Box 131
Baker, MT 59313

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 7E, Method 9, Method 10, Method 19
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semi-annual Reporting Required	X		As applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Montana Air Quality Permitting	X		Permit #2741-03
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)		X	Except for 40 CFR 61 Subpart M
Maximum Achievable Control Technology (MACT)		X	
Major New Source Review (NSR) - includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)		X	
State Implementation Plan (SIP)	X		General SIP

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I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the U.S Environmental Protection Agency (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 operating permit. Conclusions in this document are based on information provided in the original operating permit application submitted by Williston Basin Interstate Pipeline Company (WBI) on and received by the Department on June 12, 1996, the renewal application submitted on November 1, 2002, and Preconstruction Permit Application Submittal #2741-03 completed on June 21, 2004. The renewal permit incorporated the information provided in the original operating permit application and subsequent information submitted by WBI as listed above. In addition, the permit incorporated information submitted with the renewal application on December 19, 2007.

B. Facility Location

WBI owns and operates the Little Beaver Compressor Station. This facility is located in the NE¼ of Section 19, Township 4 North, Range 62 East, in Fallon County, Montana. Fallon County is designated as an Unclassifiable/Attainment area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The Little Beaver Compressor Station is located in a remote area 22 miles southeast of Baker, Montana. The adjacent land is used for grain cropland and rangeland, as well as a developed oil and gas field. The nearest residents are WBI employee housing located adjacent to the facility.

C. Facility Background Information

Montana Air Quality Permit

The Little Beaver Compressor Station was constructed by the Montana Dakota Utilities Company, WBI's predecessor, in 1936. This facility originally had five 190-horsepower (hp) Ingersoll-Rand engines with two 300-hp Ingersoll-Rand engines being added in 1939. In 1952 the 190-hp Waukesha generator engine was installed. One 440-hp engine was added in 1954, and the ninth compressor engine, an 880-hp Ingersoll-Rand, was added in 1962.

WBI was issued **Preconstruction Permit #2741-00** in 1992, which allowed WBI to install the dehydration unit used to remove water from the natural gas. The permit was issued for the operation of the Little Beaver Compressor Station; which included nine engines, one generator engine, a dehydration unit, and the miscellaneous heaters, boilers, and fugitive Volatile Organic Compound (VOC) sources. The engines at Little Beaver did not require testing.

On October 15, 1996, the Department of Environmental Quality (Department) received a preconstruction permit application for additions that were proposed for the Little Beaver Compressor Station Permit #2741-00. The final **Permit #2741-01** was issued on February 1, 1997, for the addition of source EU10, an 1,100-hp Superior 8GTLE lean burn natural gas compressor engine. Also, the permit required the installation of control equipment on source EU9, the 880-hp Ingersoll-Rand engine and increased stack heights on all ten existing engines at the facility. Because the Ingersoll Rand compressor engines and the Waukesha generator engine were manufactured and installed prior to 1968 (grandfathered sources), the plant-wide emissions limits contained in Section II.A.5 of Permit #2741-00 were not required; therefore, the Department removed the limits.

On January 22, 2003, the Department removed the every 4-year testing requirements for Source #09 and Source #10 from Permit #2741-01. In addition, the Department added a federally enforceable condition for Source #10 so that WBI may make "like for like" engine swaps according to the provisions of ARM 17.8.745(1)(r) for Source #10. Further, the permit format and language were updated to reflect current Department permit format and permit language. **Permit #2741-02** replaced Permit #2741-01.

On August 4, 2004, WBI was issued Permit #2741-03 for a modification to Permit #2741-02, which included the installation and operation of two 1,680 horsepower (hp) natural gas-fired engines. Each engine would be driving natural gas compressors and would have the ability to pull suction on production and/or storage pipelines and to discharge into gathering and/or transmission pipelines. Aspen Consulting and Engineering (Aspen) on behalf of WBI submitted modeling to demonstrate compliance with all applicable ambient air quality standards. The proposed units would replace the existing Little Beaver Units #1, 2, 3, 4, 5, 6, and 7. The current permit action also updated the rule references and language used by the Department. **Permit #2741-03** replaced Permit #2741-02.

Title V

Operating Permit #OP2471-00 was issued final and effective May 1, 1998, and expired May 1, 2003.

Operating Permit #OP2741-01 was a renewal of WBI's Title V Operating Permit #OP2741-00 for the Little Beaver Compressor Station. WBI's Operating Permit #OP2741 is applicable for 5 years and expires June 21, 2008. Operating Permit #OP2741-01 replaced Operating Permit #OP2741-00. Operating Permit #OP2741-01 replaced Operating Permit #OP2741-00.

Operating Permit #OP2741-02 was a significant modification for the instillation and operation of two 1680 horsepower (HP) natural gas fired compressor engines and the removal of units #1-#7. Additionally, the units were renumbered to designate EU11 and EU12 as the two 1680- HP Waukesha compressor engines and to designate the previous units EU11-EU17 as EU21-EU27. Further, the facility contact person was changed from Daryl Uran to Kirk Conroy. Operating Permit #OP2741-02 replaced Operating Permit #OP2741-01.

D. Current Permit Action

The current permit action is a renewal of Operating Permit #OP2741-02. The renewal incorporates the addition of one 560-gallon methanol tank at the facility which was added per the de minimis provisions of ARM 17.8.745 and the insignificant emitting unit provisions of ARM 17.8.1201(22). In addition, the facility contact person was changed from Kirk Conroy to Steve Losing. In addition, the semi-annual portable analyzer testing requirements were modified to reflect the testing waiver granted to WBI if the compressor engines operated less than 500 hours during any semi-annual period (January 1 to June 30 or July 1 to December 31). The waiver was granted by the Department in a letter dated October 13, 2006. **Operating Permit #OP2741-03** replaces Operating Permit #OP2741-02.

E. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency 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 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

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 pubic 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)

F. Compliance Designation

On October 27, 2006, the Department inspected the WBI Little Beaver Compressor Station. The inspection findings and all the material reviewed in the Department's files indicated that the facility was in compliance with the limits and conditions of the Montana Air Quality Permit #2741-03 and Title V Operating Permit #OP2741-02 at the time of inspection.

II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

The Little Beaver Compressor Station has two primary purposes. The first is to gather natural gas from natural gas fields in the Baker, Montana area and to compress the field gas up to the required pressure in the natural gas transmission system. Natural gas from the Little Beaver Compressor Station is transported via pipeline to a WBI facility at Belle Fourche, South Dakota. The Little Beaver Compressor Station moves an average of 45-million standard cubic feet per day (MMScf/day) of natural gas during the winter months. The volume of gas moved during the summer months is considerably lower.

The second purpose of the facility is to “dry” the gas as it is being processed. The gas contains some moisture, which must be removed from the system prior to being sent into the transmission system. This is accomplished with a dehydrator, also commonly called a reboiler or glycol unit.

The Standard Industrial Classification (SIC) codes for this facility are "Natural Gas Transmission" and “Natural Gas Production” which have SIC Codes of "4922" and “1311”, respectively.

B. Emission Units and Pollution Control Device Identification

Currently, the Little Beaver Compressor Station has a 190-hp Waukesha engine, a 440-hp Ingersoll-Rand engine, a 880-hp Ingersoll-Rand engine, a 1,100-hp Superior engine, and two 1680-hp Waukesha 7044 GSI engines**.** The 190-hp Waukesha engine and 440-hp Ingersoll-Rand engine were manufactured prior to 1968 and are grandfathered sources for requiring instillation of pollution control equipment. Nitrogen Oxides (NO_x) emissions from the 880-hp Ingersoll-Rand are controlled with a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller. NO_x and Carbon Monoxide (CO) emissions from the 1,100-hp Superior engine are controlled with a lean burn package and an AFR controller. NO_x and CO emissions from the 1680-hp Waukesha 7044 GSI engines are controlled with a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller. VOC emissions are minimized by burning pipeline quality natural gas in these engines.

C. Categorically Insignificant Sources/Activities

The Administrative Rules of Montana (ARM) 17.8.1201(22)(a) states that if an emitting unit has an applicable requirement, then it is not an insignificant emitting unit; therefore, the facility has no insignificant emitting units at this time.

III. PERMIT TERMS

A. Emission Limits and Standards

Emission limits for the 880-hp Ingersoll-Rand engine were established under the authority of ARM 17.8.749 and the emission limits for the 1,100-hp Superior engine and 1680-hp Waukesha 7044 GSI engines were established by a Best Available Control Technology (BACT) determination under the authority of ARM 17.8.752. The 880-hp Ingersoll-Rand engine has an emission limit of 5.82 lb/hr NO_x. The 1,100-hp Superior engine has an emission limit of 4.85 lb/hr NO_x, 7.28 lb/hr CO, and 2.43 lb/hr VOC. The 1680-hp Waukesha 7044 GSI engines each have emissions limits of 3.70 lb/hr NO_x, 4.44 lb/hr CO, and 1.85 lb/hr VOC.

The emission units at this facility are not subject to any current MACT, NESHAP, or NSPS. This facility is not subject to PSD regulations.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emission units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for an insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo **(i.e., no monitoring)** will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least 5 years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the *Billings Gazette* newspaper on or before February 27, 2009. The Department provided a 30-day public comment period on the draft operating permit from February 27, 2009, to March 30, 2009. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process. The comments and issues received by March 30, 2009, will be summarized, along with the Department's responses, in the following table. All comments received during the public comment period will be promptly forwarded to Montana-Dakota so they may have an opportunity to respond to these comments as well.

Summary of Public Comments

Person/Group Commenting	Comment	Department Response

Draft Permit Comments: Permit #OP1551-05

Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response
Section III.C.7 and Section III.D.9	Please include wording stating a testing waiver for these sources if they operate less than 500 hours during a semi-annual period as stated in a Montana Department of Environmental Quality letter dated October 13, 2006.	The Department added the language as requested.

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response

IV. NON-APPLICABLE REQUIREMENTS ANALYSIS

Section IV of the operating permit "Non-applicable Requirements" contains the requirements that the Department determined were non-applicable. The following table summarizes the requirements that WBI identified as non-applicable and contains the reasons that the Department did not include these requirements as non-applicable in the permit.

Requirement not Identified in the Operating Permit

Applicable Requirement	Reason
40 CFR 61, Subpart M National Emissions Standards for Hazardous Air Pollutants - Asbestos	This is a federal regulation that has specific procedural requirements that may become relevant to the major source during the permit term.

V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards:

As of the issuance date of Operating Permit #OP2741-03, the Department is unaware of any future MACT Standards that may be promulgated that will affect this facility.

B. NESHAP Standards:

As of the issuance date of Operating Permit #OP2741-03, the Department is unaware of any future NESHAP Standards that may be promulgated that will affect this facility.

C. NSPS Standards:

As of the issuance date of Operating Permit #OP2741-03, the Department is unaware of any future NSPS Standards that may be promulgated that will affect this facility.

D. Risk Management Plan:

As of the issuance date of February 27, 2009, this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

E. Compliance Assurance Monitoring (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 emission of the applicable regulated air pollutants that are greater than major source thresholds.

WBI does not currently have any emitting units that meet all the applicability criteria in ARM 17.8.1503, and is therefore not currently required to develop a CAM Plan.