

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

**Permitting and Compliance Division
1520 E. Sixth Avenue
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Helena, Montana 59620-0901**

**Williston Basin Interstate Pipeline Company
Vida Compressor Station
N½ of NE¼ of Section 27, Township 25 North, Range 49 East, in McCone County
P.O. Box 131
Glendive, MT 59330**

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		Portable analyzer
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Preconstruction Permitting			#2814-02
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)		X	
Prevention of Significant Deterioration (PSD)		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
State Implementation Plan (SIP)	X		General SIP

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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 proposed permit 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 Title V application submitted by WBI on June 12, 1996, and a renewal application submitted on June 24, 2003.

B. Facility Location

Williston Basin Interstate Pipeline Company (WBI) owns and operates the Vida Compressor Station. This facility is located in the N $\frac{1}{2}$ of NE $\frac{1}{4}$ of Section 27, Township 25 North, Range 49 East, in McCone County, Montana. McCone County is designated as an Unclassifiable/Attainment area for National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The Vida Compressor Station is located in a remote area 8 miles northeast of Vida, Montana. The adjacent land is used for grain cropland and rangeland. The nearest residence is WBI employee housing located adjacent to the facility.

C. Facility Background Information

The Vida Compressor Station was constructed by the Montana Dakota Utilities Company (MDU), WBI's predecessor, beginning in 1978 and ending in 1979. This facility originally had two 600-hp Ajax DPC-600 engines with two additional 600-hp Ajax DPC-600 engines being added in 1979.

The Vida Compressor Station was constructed by WBI's predecessor, MDU, as one planned project, but in two construction phases, between April 1978 and April 1979. MDU filed docket #CP75-154 with the Federal Energy Regulatory Commission (FERC) on November 20, 1974, which requested authority to construct and operate a natural gas compressor station for the transportation of natural gas from the Bowdoin Field near Saco to storage at the Cabin Creek, Montana storage area and to further sales destinations.

WBI was issued a FERC certificate on May 11, 1977, to construct and operate those facilities identified in docket #CP75-154. Originally, 3 - 1200 hp Solar Saturn compressor engines were proposed to be installed over a two-year period. Construction was to begin in 1976 near Richey, Montana, but the FERC certificate was not issued until May 11, 1977, and equipment contracts had not been initiated beforehand. For this reason the project was delayed and during this time the construction plans were changed.

During the delay, WBI determined that it could perform the required services with three Ajax DPC-540 compressors and one Ajax DPC-360 compressor, for a total of 1980 horsepower (hp). The proposed station was relocated from near Richey, Montana to Vida, Montana and the Vida station was planned to be built with the first two compressor engines being installed in 1978. In 1976, Ajax was marketing the DPC-540 compressor with a nameplate rating of 540 hp. Subsequent to 1976, and before WBI's order was placed, Ajax modified and updated the DPC-540 and it became the DPC-600 reciprocating internal combustion engines (RICE) with a nameplate rating of 600-hp. The DPC-540 was no longer offered or available. Due to this reason, two 600-hp Ajax DPC-600 RICE were ordered and installed as units #1 and #2, instead of the originally planned compressor engines.

The purchase order for units #1 and #2 was issued on September 13, 1977, with a no charge cancellation date of January 15, 1978. The actual on-site construction of the Vida station began on April 10, 1978, with the pouring of the concrete pads for all four compressor engines. The erection of the compressor building, installation of units #1 and #2, and addition of the other associated equipment followed shortly thereafter. Work on phase one of this project was completed by October 27, 1978.

In the second construction phase the following year, two additional compressor engines were to be installed. In addition to the installation of the latter two engines, other construction activities on the mainline and at existing stations had to be completed to allow WBI to increase capacity on the mainline.

Installing all four compressor engines in 1978 would have been unproductive because the pipeline capacity was limited to the operating pressure of the existing pipeline and only two engines were required to achieve the potential pipeline capacity in 1978. Only after additional construction work upgrading certain pipeline segments and installing two additional compressor engines at Saco, were Vida compressor engines #3 and #4 finally required. Due to the manufacturer's modification/upgrading of its 540-hp compressor engines, two 600-hp Ajax DPC-600 RICE were ordered and installed as units #3 and #4, instead of the originally planned compressor engines.

The purchase order for units #3 and #4 was issued on March 31, 1978, with no capital expenditure until April 1979. The actual installation of units #3 and #4 was on April 20, 1979, and the entire project was completed by October 8, 1979. The completed Vida compressor station had estimated potential nitrogen oxides (NO_x) and carbon monoxide (CO) emissions of 300 and 70 tons per year, respectively. The completed Vida compressor station provided a capacity of 14,000 Mcf per day in the summer and 17,000 Mcf per day in the winter.

In May 1993, WBI had an emission source test conducted to determine the NO_x and CO emissions from the unit #2 compressor engine (Ajax DPC-600 RICE, Serial #75553). The results of the source test, based on averaging the 3 tests, were 11.87 pounds per hour (lb/hr) (10.323 gram/hp-hr) for NO_x and 2.74 lb/hr (2.382 gram/hp-hr) for CO.

On June 21, 1994, WBI was issued air quality Permit #2814-00 for the operation of the Vida Compressor Station and associated equipment.

On February 13, 2003, the Department of Environmental Quality (Department) received a request from WBI to modify Permit #2814-00 for the addition of low emission (LE) packages to the four Ajax DPC-600 natural gas fired RICE.

The permit action added LE packages to the four Ajax DPC-600 Engines under the provisions of ARM 17.8.745 (1). In addition, Permit #2841-02 was updated to reflect the new emission factors for Ajax DPC-600LE RICE and current Department permit format and permit language. Permit #2814-01 replaced Permit #2814-00.

On September 16, 2003, the Department received a letter from WBI requesting to increase the CO limit for each of the Ajax DPC-600LE natural gas fired compressor engines from 1.59 pounds per hour (lb/hr), proposed in error by WBI and set in permitting action 2814-01, to 2.44 lb/hr. Because the potential emission increase of CO emissions was less than 15 tons/year and because the existing limit was not established through Best Available Control Technology (BACT) the Department determined that the onetime increase in the CO emission limit was excluded from requiring a permit as described in ARM 17.8.745(1)(d). The de minimis action changed the CO limit for each of the Ajax DPC-600LE natural gas fired compressor engine from 1.59 lb/hr to 2.44 lb/hr and updated the permit to reflect current permit language and rule references used by the Department. Permit #2814-02 replaced Permit #2814-00.

Title V Operating Permit OP2814-00 was issued final and effective on August 23, 1998.

D. Current Permit Action

The current permit action is a renewal of WBI's Title V Operating Permit OP#2814-01 for the Vida Compressor Station. WBI's Operating Permit #OP2814-00 was applicable for 5 years and expired on August 23, 2003. WBI applied for a renewal of their Title V Operating Permit on June 24, 2003. This action also incorporates changes made under Permit #2814-01 and 2814-02. Operating Permit **OP2814-01** replaces Operating Permit OP2814-00.

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. The checklist was completed on September 29, 2003.

F. Compliance Designation

The Department inspected the Vida Compressor Station on May 27, 2003, the facility was in compliance with all the applicable requirements. All source tests shall be conducted in accordance with the Montana Source Protocol and Procedures Manual.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

The Vida Compressor Station serves as a natural gas pipeline booster station. This facility increases the capacity of the Saco to Cabin Creek pipeline section. Natural gas gathered from the Bowdoin Field near Saco is transferred to storage at the Cabin Creek storage area to further sales destinations. The Standard Industrial Classification (SIC) for this facility is “Natural Gas Transmission” which has an SIC Code of “4922.”

B. Emissions Units and Pollution Control Device Identification

Currently, the Vida Compressor Station has four 600-hp Ajax DPC-600LE compressor engines. Low emission combustion equipment is currently in operation on the compressor engines.

C. Categorically Insignificant Sources/Activities

The Administrative Rules of Montana (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 (HAP), and is not regulated by any applicable requirement other than a generally applicable requirement

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

Emission limits for the 600-hp Ajax DPC-600LE engines were established under the authority of ARM 17.8.749. As written in the Vida preconstruction permit, the emission limits for the compressor engines are required by ARM 17.8.749. Subchapter 7 of the ARM has been incorporated into the State Implementation Plan (SIP). Since the conditions in the preconstruction permit are required by a rule that is included in the SIP, the limitations in the Montana Air Quality permit are federally enforceable. The Department's current Title V testing schedule policy for major source compressor engines requires semiannual portable analyzer testing. Since the Vida Compressor Station is a major source with federally enforceable limitations derived from the Montana Air Quality permit, the Department has required semiannual testing. The 600-hp Ajax DPC-600LE engines have an emission limit of 8.60 lb/hr NO_x, 2.44 lb/hr CO, and 1.19 lb/hr VOC.

The tanks that are permitted by OP2814-01 are not subject to the New Source Performance Standards (NSPS) because the tanks are relatively small. 40 CFR Part 60, Subparts K, Ka and Kb are not applicable to the tanks that are permitted at the Vida Compressor Station. Subpart K does not apply because it excludes tanks that have a capacity of 40,000 gallons or less. Subpart Ka does not apply because it excludes tanks that have a capacity of 40,000 gallons or less. Subpart Kb does not apply because it excludes tanks that have a capacity of 40 cubic meters or less. The remaining applicable standards that are listed in Permit #OP2814-01 are consistent with other operating permits that have been issued by the Department. The emissions units at this facility are not subject to any current MACT, NESHAP, or NSPS standards. 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 does not require the permit to impose the same level of rigor for all emissions units. Furthermore, it does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions 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 a 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 emissions 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 five 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 17.8.132, a public notice was published in the *Ranger Review* newspaper on or before December 4, 2003. The Department provided a 30-day public comment period on the draft operating permit from December 4, 2003, to January 6, 2003. 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 January 6, 2003, 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 WBI so they may have an opportunity to respond to these comments as well.

Summary of Public Comments

Person/Group Commenting	Comment	Department Response

G. Draft Permit Comments

Summary of Permittee Comments

Permit Reference	Permittee Comment	Department Response

Summary of EPA Comments

Permit Reference	EPA Comment	Department Response

SECTION IV. NON-APPLICABLE REQUIREMENT 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.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards

As of the issuance date of Draft Operating Permit OP2814-01, 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 Draft Operating Permit OP2814-01, 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 Draft Operating Permit OP2814-01, 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 Draft Operating Permit OP2814-01, 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 no later than June 21, 1999; 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.