



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

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June 18, 2009

Bob Dundas, P.G.
Butte Pipe Line Company
PO Drawer 2360
Casper, WY 82602

Dear Mr. Dundas:

Air Quality Permit #3409-01 is deemed final as of June 18, 2009, by the Department of Environmental Quality (Department). This permit is for a crude oil tank facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3490

Kathleen Doran, P.E.
Environmental Engineer.
Air Resources Management Bureau
(406) 247-4443

VW: KD
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3409-01

Butte Pipe Line Company
PO Drawer 2360
Casper, WY 82602

June 18, 2009



MONTANA AIR QUALITY PERMIT

Issued To: Butte Pipe Line Company
Baker Station
P.O. Drawer 2360
Casper, Wyoming 82602

Montana Air Quality Permit #3409-01
Administrative Amendment (AA)
Request Received: 03/02/09
Department Decision on AA: 06/02/09
Permit Final: 06/18/09
AFS #: 025-0015

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Butte Pipe Line Company (BPLC) pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

BPLC owns and operates a crude oil tank facility located approximately eight miles west of Baker, Montana in the NE¹/₄ of the SE¹/₄ of Section 4, Township 7 North, Range 58 East, in Fallon County, Montana. The facility is known as the Baker Station, where crude oil is delivered into and shipped out of the facility via underground pipelines.

B. Current Permit Action

On March 2, 2009, the Department of Environmental Quality (Department) received a request from BPLC to administratively amend Permit #3409-00 to limit the total facility rolling 12-month throughput rather than individual tank limits for Tanks #21, #22, #23, #24, #25, and #26.

On April 9, 2009, the Department received additional information from BPLC that Tank #27 was not constructed and there are no plans to construct it. Tank #27 will be removed from the permitted equipment list and emissions inventory. On May 18, 2009, the Department received additional information from BPLC providing the maximum fill volumes for the 6 Baker Station tanks.

Section II: Limitations and Conditions

A. Emission Control Requirements

1. The operation of BPLC's Baker Station crude oil facility's total throughput shall not exceed 88,236,195 barrels of oil per rolling 12-month time period (ARM 17.8.749).
2. BPLC 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 (ARM 17.8.304).
3. BPLC 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 (ARM 17.8.308).

4. BPLC shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749).
5. BPLC shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Standards of Performance for New Stationary Sources (NSPS), Subpart Kb – Standards of Performance for Volatile Liquid Organic Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (ARM 17.8.340 and 40 CFR 60, Subpart Kb).

B. Inspection and Repair Requirements

1. Each calendar month, all fugitive piping components (valves, flanges, pump seals, open-ended lines) shall be inspected for leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.105 and ARM 17.8.752).
2. BPLC shall (ARM 17.8.105 and ARM 17.8.752):
 - a. Make a first attempt at repair for any leak not later than 5 calendar days after the leak is detected; and
 - b. Repair any leak as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Section II.B.3.
3. Delay of repair of equipment for which a leak has been detected will be allowed if repair is technically infeasible without a source shutdown. Such equipment shall be repaired before the end of the first source shutdown after detection of the leak (ARM 17.8.752).

C. Testing Requirements

1. The Department may require testing (ARM 17.8.105).
2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

D. Operational Reporting Requirements

1. BPLC shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. BPLC shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, 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 emissions unit. The notice must be submitted to the Department, 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)(d) (ARM 17.8.745).
3. BPLC shall document, by month, the oil throughput of each tank. By the 25th day of each month, BPLC shall calculate the oil throughput of each tank for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.1. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Recordkeeping Requirements

1. A record of each monthly leak inspection required by Section II.B.1 of this permit shall be kept on file with BPLC. Inspection records shall include, at a minimum, the following information (ARM 17.8.749):
 - a. Date of inspection;
 - b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);
 - c. Leak determination method;
 - d. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and
 - e. Inspector's name and signature.
2. All records compiled in accordance with this permit must be maintained by BPLC as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – BPLC shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring System (CEMS), Compliance Emission Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if BPLC fails to appeal as indicated below.

- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving BPLC of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by BPLC may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit - Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

PERMIT ANALYSIS
 Butte Pipe Line Company
 Baker Station
 Montana Air Quality Permit (MAQP) #3409-01

I. Introduction/Process Description

A. Permitted Equipment

Butte Pipe Line Company (BPLC) owns and operates the Baker Station. The facility is a crude oil tank facility located in the NE¼ of the SE¼ Section 4, Township 7 North, Range 58 East, in Fallon County, Montana. The facility is located approximately 8 miles west of Baker, Montana. The following equipment is permitted for this facility:

Tank ID	Source Description
#21	(1955) 40,000 barrel (bbl) crude oil tank with internal floating roof
#22	(1955) 40,000 bbl crude oil tank with internal floating roof
#23	(1955) 30,000 bbl crude oil tank with internal floating roof
#24	(1955) 30,000 bbl crude oil tank with internal floating roof
#25	(1958) 40,000 bbl crude oil tank with internal floating roof
#26	(1993) 80,000 bbl crude oil tank with internal floating roof

- Pipeline Component Fugitives
- Vehicle Traffic

B. Source Description

Crude oil is delivered into and shipped out of the facility via underground pipelines.

C. Permit History

On July 18, 2005, the Department of Environmental Quality (Department) received a complete permit application from BPLC to add a 100,000-barrel internal floating roof tank to an existing crude oil tank facility. The addition of the new tank would cause the facility to have a Potential to Emit (PTE) over 25 tons per year of Volatile Organic Compounds (VOC), thus requiring a MAQP. **MAQP #3409-00** became final and effective on September 17, 2005.

D. Current Permit Action

On March 2, 2009, the Department received a request from BPLC to administratively amend MAQP #3409-00 to limit the total facility rolling 12-month throughput rather than individual tank limits for Tanks #21, #22, #23, #24, #25, and #26. On April 9, 2009, the Department received additional information from BPLC that Tank #27 was not constructed and there are no plans to construct it. Tank #27 will be removed from the permitted equipment list and emissions inventory. On May 18, 2009, the Department received additional information from BPLC providing the maximum fill volumes for the 6 Baker Station tanks. **MAQP #3409-01** replaces MAQP #3409-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. 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 tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Codes Annotated (MCA).

BPLC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than four hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility

9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀
11. ARM 17.8.230 Fluoride in Forage

BPLC must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this rule, BPLC 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.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions—Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions - Petroleum Products. No person shall 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 as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). BPLC is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. Tank #26 is subject to Subpart Kb.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories. Since the emissions of Hazardous Air Pollutants (HAPs) from the BPLC Baker Station is less than 10 tons per year for any individual HAP and less than 25 tons per year for all HAPs combined, the BPLC facility is not currently subject to the provisions of 40 CFR Part 63.
- D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. The current permit action is considered an administrative amendment; therefore, BPLC was not required to submit an application fee.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the PTE greater than 25 tons per year of any pollutant. BPLC has a PTE greater than 25 tons per year of VOC; therefore, a Montana Air Quality Permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. The current permit action is considered an administrative amendment; therefore, a permit application was not required. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. The current permit action is considered an administrative amendment; therefore, an affidavit of publication of public notice was not required.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is discussed in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving BPLC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE greater than 100 tons per year of any pollutant;
 - b. PTE greater than 10 tons per year of any one hazardous air pollutant (HAP), PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE greater than 70 tons per year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3409-01 for BPLC, the following conclusions were made:

- a. The facility's PTE is less than 100 tons per year for any pollutant.
- b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year for all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is subject to a current NSPS standard (40 CFR 60, Subpart Kb).
- e. This facility is not subject to any current NESHAP standard.
- f. This facility is not a Title IV affected source, or a solid waste combustion unit.
- g. This facility is not an Environmental Protection Agency (EPA) designated Title V source.

Based on these facts, the Department determined that BPLC will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, BPLC will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for any new or modified source. BPLC shall install on the new or modified source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

Source	Tons/Year						
	PM	PM ₁₀	NO _x	VOC	CO	SO ₂	HAPs
Tank #21				4.02			0.42
Tank #22				4.05			0.42
Tank #23				3.51			0.42
Tank #24				3.51			0.42
Tank #25				4.05			0.42
Tank #26				5.45			0.42
Pipeline Component Fugitives				2.03			0.22
Haul Roads	5.01	2.26					
Total	5.01	2.26		26.62			2.74

Tanks (standing and working losses from facility storage tanks):

Total Tank #21 VOC emissions = 8,054 lb/yr * 0.0005 ton/lb = 4.02 ton/yr
 Total Tank #22 VOC emissions = 8,107 lb/yr * 0.0005 ton/lb = 4.05 ton/yr
 Total Tank #23 VOC emissions = 7,020 lb/yr * 0.0005 ton/lb = 3.51 ton/yr
 Total Tank #24 VOC emissions = 7,020 lb/yr * 0.0005 ton/lb = 3.51 ton/yr
 Total Tank #25 VOC emissions = 8,109 lb/yr * 0.0005 ton/lb = 4.05 ton/yr
 Total Tank #26 VOC emissions = 10,907 lb/yr * 0.0005 ton/lb = 5.45 ton/yr

Total VOC emissions from tanks:

$$4.02 \text{ ton/yr} + 4.05 \text{ ton/yr} + 3.51 \text{ ton/yr} + 3.51 \text{ ton/yr} + 4.05 \text{ ton/yr} + 5.45 \text{ ton/yr} = 24.59 \text{ ton/yr}$$

Emissions calculated using U.S. EPA Tanks v.4.0.9d Storage Tank Emissions Calculation Software; using maximum fill capacity provided by BPLC 5/19/09.

Tanks HAP Emission Calculations

Basis for Speciation Factors: EPA Speciate Program Profile No. 1210 – Pipeline Terminal Tanks (Permit #3409-00)

HAP	Speciation Factor (% HAP in vapor phase)	VOC Emissions (Ton/yr)	HAP Emissions (Ton/yr)
Benzene	0.54	24.59	0.13
Toluene	0.90	24.59	0.22
Ethylbenzene	0.22	24.59	0.05
Xylene	0.89	24.59	0.22
Hexane	4.69	24.59	1.15
2,2,4 - Trimethylpentane	3.03	24.59	0.75
Total Fugitive HAPs			2.52

Fugitive VOC Emission Calculations (calculated at 100% VOC)

Basis for Emission Factors: EPA Protocol for Equipment Leak Emission Estimates, November 1995 (EPA-453/R-95-017), Table 2-4

Connector: 15 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.00021 kg/hr/component
 Calculation: 15 components * 0.00021 kg/hr/component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 0.03 ton/yr

Flange: 114 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.00011 kg/hr/component
 Calculation: 114 components * 0.00011 kg/hr/component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 0.12 ton/yr

Open-ended Line: 5 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.0014 kg/hr/component
 Calculation: 5 components * 0.0014 kg/hr-component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 0.07 ton/yr

Other: 10 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.0075 kg/hr/component
 Calculation: 10 components * 0.0075 kg/hr/component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 0.72 ton/yr

Pump Seals: 0 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.013 kg/hr/component
 Calculation: 0 components * 0.013 kg/hr-component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 0.00 ton/yr

Valve: 45 components in light oil service (≥ 20 API Gravity)
 Emission Factor: 0.0025 kg/hr/component
 Calculation: 45 components * 0.0025 kg/hr/component * 2.205 lb/kg * 24 hr/day * 365 day/yr * 0.0005 ton/lb = 1.09 ton/yr

Total Fugitives from Piping: 0.03 ton/yr + 0.12 ton/yr + 0.07 ton/yr + 0.72 ton/yr + 0.00 ton/yr + 1.09 ton/yr = 2.03 ton/yr

Fugitive HAP Emission Calculations

Basis for Speciation Factors: EPA Speciate Program Profile No. 1210 – Pipeline Terminal Tanks (Permit #3409-00)

HAP	Speciation Factor (% HAP in vapor phase)	VOC Emissions (Ton/yr)	HAP Emissions (Ton/yr)
Benzene	0.54	2.03	0.01
Toluene	0.90	2.03	0.02
Ethylbenzene	0.22	2.03	0.01
Xylene	0.89	2.03	0.02
Hexane	4.69	2.03	0.10
2,2,4 - Trimethylpentane	3.03	2.03	0.06
Total Fugitive HAPs			0.22

Haul Roads: Fugitive PM and PM₁₀ Emissions from Unpaved Roads

PM Emissions

Factor (Rated Load Capacity < 50 tons): **6 lb/VMT** (DEQ Policy Statement (Haul Road Emissions Factors) dated 04-25-1994)

PM₁₀ Emissions

Factor (Rated Load Capacity <50 tons): **2.7 lb/VMT** (DEQ Policy Statement (Haul Road Emissions Factors) dated 04-25-1994)

Garbage Trucks: 0.7854 miles/trip * 4 trips/month * 12 months/year = 38 VMT/yr

PM = 38 VMT/yr * 6.0 lb/VMT * 0.0005 ton/lb = 0.11 ton/yr

PM₁₀ = 38 VMT/yr * 2.7 lb/VMT * 0.0005 ton/lb = 0.05 ton/yr

Company Vehicles: 0.7854 miles/trip * 20 trips/week * 52 weeks/year = 1,634 VMT/yr

PM = 1,634 VMT/yr * 6.0 lb/VMT * 0.0005 ton/lb = 4.90 ton/yr

PM₁₀ = 1,634 VMT/yr * 2.7 lb/VMT * 0.0005 ton/lb = 2.21 ton/yr

NOTE: See Application #3409-00 for detailed emission inventory information.

V. Existing Air Quality

The BPLC facility is located in eastern Montana in a sparsely populated area with generally very good ventilation throughout the year. The legal description of the facility is NE¼ of the SE¼ of Section 4, Township 7 North, Range 58 East, in Fallon County, Montana. Fallon County is unclassifiable/ attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions and the existing air quality in the area, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a 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.

VIII. Environmental Assessment

The current permit action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared by: Kathleen Doran

Date: May 19, 2009