

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

**Permitting and Compliance Division  
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Phillips 66 Pipeline LLC  
Billings Pipeline and Terminal Operations  
NW¼ Section 2, Township 1 South, Range 26 East, Yellowstone County  
401 South 23rd Street  
Billings, MT 59101

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

<b>Facility Compliance Requirements</b>	<b>Yes</b>	<b>No</b>	<b>Comments</b>
Source Tests Required	X		
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Continuous Parameter Monitoring	X		VCU - Thermocouple
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
<b>Applicable Air Quality Programs</b>			
ARM Subchapter 7 Montana Air Quality Permit	X		Permit #2619-30 (part of the Refinery MAQP)
New Source Performance Standards (NSPS)	X		40 CFR 60, Subpart A, Subpart VV, Subpart XX, Subpart GGG
National Emission Standards for Hazardous Air Pollutants (NESHAPS)	X		40 CFR 61, Subpart M
Maximum Achievable Control Technology (MACT)	X		40 CFR 63, Subpart R, Subpart CC, Subpart EEE
Major New Source Review (NSR), including 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		Billings/Laurel 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 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 United States 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 permit.

Conclusions in this document are based on information provided in the original application submitted by Conoco Inc. (Conoco) on June 12, 1996; subsequent settlement stipulation and order of dismissal of Conoco's Title V permit appeal, filed on July 9, 2002; two administrative amendments received December 19, 2002, and October 10, 2003, filed by ConocoPhillips Company; the renewal application submitted January 10, 2007; a de minimis request dated January 31, 2008; administrative amendment requests received from ConocoPhillips on June 10, 2009, July 9, 2009, September 2, 2009, and September 15, 2009; and Administrative Amendment requests received on March 19, 2012 and May 1, 2012. The most recent action is based on the Title V renewal application received on December 19, 2012.

### B. Facility Location

The Phillips 66 Pipeline LLC Billings Pipeline and Terminal Operations (Phillips 66 Pipeline) is located in the NW¼, Section 2, Township 1 South, Range 26 East, Yellowstone County. This legal description refers to the physical address of 401 South 23<sup>rd</sup> Street, Billings, Montana.

The facility is considered a support facility for ConocoPhillips – Billings Refinery, which operates under the Title V Operating Permit #OP2619. As such, it is included in conjunction with the refinery during Prevention of Significant Deterioration (PSD), Maximum Achievable Control Technology (MACT), and other permitting determinations. The two facilities are currently both contained in Montana Air Quality Permit (MAQP) #2619-28. The transportation operations were previously permitted as part of the refinery's Title V Operating Permit #OP2619-01. However, since there are separate management structures, the facility requested to separate the transportation operations from the refinery in the operating permit.

### C. Facility Background Information

#### Montana Air Quality Permit (MAQP) Background

ConocoPhillips has received several air quality permits throughout the past years for various pieces of equipment and operations. All previously permitted equipment, limitations, conditions, and reporting requirements stated in **MAQPs #1719, #2565, #2669, #2619, and #2619A** were included in **MAQP #2619-02**. Numerous permit modifications affecting the Billings Refinery, including the Pipe Line Product Terminal, were made to MAQP #2619-02, and are on file with the Department of Environmental Quality – Air Resources Management Bureau (Department). Specific permit modifications affecting the Terminal are summarized as follows.

**MAQP #2619-10:** On July 30, 1997, MAQP #2619-10 was issued to Conoco in order to comply with 40 CFR 63, Subpart R- National Emission Standards for Gasoline Distribution Facilities. Conoco proposed to install a gasoline vapor collection system and enclosed firebox within the vapor combustion unit (VCU) for the reduction of Hazardous Air Pollutants (HAPs) resulting from the loading of gasoline. The VCU was added to the bulk gasoline and distillate loading rack. The

gasoline vapors are collected from the trucks during loading and then routed to an enclosed firebox within the VCU where combustion occurs. This project resulted in an overall reduction in the amount of actual emissions of volatile organic compounds (VOCs) of 94.8 tons per year (tpy). The reduction in potential emissions of VOCs is 899.5 tpy, while carbon monoxide (CO) increases to 19.7 tpy and oxides of nitrogen (NO<sub>x</sub>) increases to 7.9 TPY emissions.

Conoco also requested an administrative change be made to Section II.F.5, that would bring the permit requirements in alignment with the monitoring requirements specified by 40 CFR 60, Subpart QQQ and 40 CFR 61, Subpart FF.

Because Conoco's bulk gasoline and distillate loading rack VCU is defined as an incinerator under Montana Code Annotated (MCA) 75-2-215, a determination that the emissions from the VCU will constitute a negligible risk to public health was required prior to the issuance of the permit. Conoco and the Department identified the following hazardous air pollutants from the enclosed firebox within the VCU, which were used in the health risk assessment. These constituents are typical components of gasoline.

1. Benzene
2. Ethyl Benzene
3. Hexane
4. Methyl Tert Butyl Ether
5. Toluene
6. Xylenes

The reference concentrations for Ethyl Benzene, Hexane, and Methyl Tert Butyl Ether were obtained from EPA's IRIS database. The risk information, for the remaining hazardous air pollutants, is contained in the January 1992 CAPCOA Risk Assessment Guidelines. The model performed by Conoco for the hazardous air pollutants, identified above, monitored compliance with the negligible risk requirement.

**MAQP #2619-11:** On December 10, 1997, Conoco requested a modification to MAQP #2619-10. In addition to changes to the Refinery, Conoco also requested to be consistent with the wording as specified by 40 CFR 63, Subpart R. The Department replaced all references to "tank trucks" with "cargo tank" and all references to "truck-loading rack" with "loading rack" and made other administrative changes. MAQP #2619-11 was issued to Conoco.

**MAQP #2619-24:** On November 19, 2008, MAQP #2619-24 was issued to ConocoPhillips. MAQP #2619-24 included clarification language for the emissions control requirements associated with the bulk loading gasoline and distillates loading rack operation and maintenance.

Several other permit modifications affecting the Billings Refinery (unrelated to the Product Terminal) were made to MAQP #2619 since 1998, and are on file with the Department. **MAQP #2619-30** is the most recently issued MAQP.

#### Title V Operating Permit

**Operating Permit #OP2619-00** was issued final and effective on July 9, 2002.

**Operating Permit #OP2619-01:** A letter from ConocoPhillips dated December 9, 2002, and received by the Department on December 10, 2002, notified the Department that Conoco had changed its name to ConocoPhillips. On October 10, 2003, the Department received a request from ConocoPhillips for an administrative amendment of #OP2619-00 to update Section V.B.3 of the

General Conditions incorporating changes to federal Title V rules 40 CFR 70.6(c)(5)(iii)(B) and 70.6(c)(5)(iii)(C) (to be incorporated into Montana's Title V rules at Administrative Rules of Montana (ARM) 17.8.1213) regarding Title V annual compliance certifications. This permit action changed the name on this permit from Conoco to ConocoPhillips and updated Section V.B.3 of the General Conditions. **Operating Permit #OP2619-01** replaced Operating Permit #OP2619-00.

**Operating Permit #OP4056-00:** On January 10, 2007, the Department received a renewal application from ConocoPhillips Pipe Line Company. The transportation operations were previously permitted as part of the refinery's Title V Operating Permit #OP2619-01. However, since there are separate management structures, the facility requested to separate the transportation operations from the refinery in the operating permit. **Operating Permit #OP4056-00** replaced the transportation operations in Operating Permit #OP2619-01.

**Operating Permit #OP4056-01:** On June 10, 2009 and July 9, 2009, the Department received requests from ConocoPhillips for an administrative amendment to Operating Permit #OP4056-00. The administrative amendment action changed the responsible officials for the Billings Pipeline and Terminal Operations from John T. Barrett to Amy Gross - Terminal Operations, and Don Miller - Pipeline Operations.

This action required dual signatures for the compliance certification for Billings Pipeline and Terminal Operations. On September 2, 2009, the Department received an email from ConocoPhillips for additional administrative amendments to Operating Permit #OP4056-00. The additional administrative amendment action updated the mailing address, corrected language in the permit from 'enclosed flare' to 'enclosed firebox within the VCU' (to clarify this equipment is not a flare), correctly identified the small crude offloading tank as #66082 (EU002-Storage Tanks), and added identification numbers to the three ethanol tanks (EU003-Storage Tanks). On September 15, 2009, the Department received a letter from ConocoPhillips restating the September 2, 2009 administrative amendment requests, but included the dual responsible official signatures on the document.

**Operating Permit #OP4056-01** replaced Operating Permit #OP4056-00.

On March 19, 2012, the Department received notification of a change in responsible official, with Mike Miller replacing Don Miller for the pipeline operations, and Amy Gross remaining as the responsible official representative of the terminal operations. The notification letter also indicated that ConocoPhillips Company would soon be undertaking an ownership change, and therefore, the Department could wait to receive the notification to combine the actions into one action from the Department. The Department received the name change request on May 1, 2012, requesting the permits be updated to reflect the name change from ConocoPhillips Pipeline Company to Phillips 66 Pipeline LLC. Therefore, Operating Permit #OP4056-01 was replaced with **Operating Permit #OP4056-03**, recognizing the two separate administrative amendment requests were being rolled into one action. Operating Permit #OP4056-03 replaced Operating Permit #OP4056-01.

#### **D. Current Permit Action**

On December 19, 2012, the Department received the Title V renewal application from Phillips 66 Pipeline LLC. The notification also provided a request to remove tank #66082 from the operating permit as this tank has been removed from service. **Operating Permit #OP4056-04** replaces Operating Permit #OP4056-03.

#### **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 2-10-105, 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 last Full Compliance Evaluation and Compliance Monitoring Report (FCE/CMR) of the ConocoPhillips – Billings Pipeline and Terminal Operations was conducted onsite September 29, 2011. ConocoPhillips was in compliance with permit limitations and conditions during the timeframes covered by these reports.

## SECTION II. SUMMARY OF EMISSION UNITS

### A. Facility Process Description

The Billings Refinery consists of the main refinery area, where crude is broken down into various petroleum products; a loading rack, where gasoline and distillate is loaded into cargo tanks; a wastewater treatment facility; a tank farm; a coker unit; and the sulfur recovery facility.

This Title V Operating permit covers the bulk loading rack. Processes in these areas include the two gasoline and diesel loading racks (with vapor collection and VCU), propane loading, and ethanol blending. This Title V Operating permit also covers the crude oil unloading and crude oil storage.

### B. Emission Units and Pollution Control Device Identification

Emission Unit 001 is the Terminal's Fugitive Emissions associated with the loading rack, and applicable unloading and storage operations, as well as with the crude oil unloading and storage tanks. It is concerned with equipment leaks from valves, connections, open-ended lines, load arms, pumps & meters, as well as minimizing vapor releases associated with gasoline handling.

Emission Unit 002 is Storage Tanks. The crude oil storage tanks must meet requirements of floating roofs with seal systems, or fixed roofs with rooftop vacuum breaker vents. These units undergo regular inspections.

Emission Unit 003 is the Product Bulk Loading. This unit is required to have a vapor collection system as well as a vapor combustion unit for control of VOCs. In addition, there are requirements for valves, flanges, pump seals, and open-ended lines.

### C. Categorically Insignificant Sources/Activities

As defined in ARM 17.8.1201, "insignificant emissions unit" means (i) any activity or emissions unit located within a source that has a potential to emit less than 5 tpy of any regulated pollutant; (ii) has a potential to emit less than 500 pounds per year of lead; (iii) has a potential to emit less than 500 pounds per year of hazardous air pollutants listed pursuant to Section 112(b) of the FCAA; and (iv) is not regulated by an applicable requirement, other than a generally applicable requirement that applies to all emission units subject to this subchapter.

Phillips 66 Pipeline provided a full list of emitting units in the December 19, 2012, renewal application and did not indicate any were insignificant sources/activities.

## SECTION III. PERMIT CONDITIONS

### A. Emission Limits and Standards

Emission limits and standards in this Title V Operating Permit were established from the Montana Air Quality Permit, the Billings/Laurel SIP, NSPS requirements, NESHAP requirements, and MACT requirements.

### B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods, required under applicable requirements, be 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, it does 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 emission 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.

In the case of CEMS, and required back-up or alternative methods when the CEMS are not running, the permit states "the Department shall approve such contingency plans." When such contingency plans are in use and have been submitted, the source will be considered to be in compliance with the contingency plan requirement until the Department informs Phillips 66 Pipeline otherwise.

### 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 emission unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semiannual 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.

To eliminate redundant reporting, a source may reference previously submitted reports (with at least the date and subject of the report) in the semiannual and annual reports instead of resubmitting the information in monthly, quarterly, and/or other reports. However, a source must still certify continuous or intermittent compliance with each applicable requirement annually.

**F. Public Notice**

In accordance with ARM 17.8.1232, a public notice was published in the *Billings Gazette* newspaper on April 15, 2013. The Department provided a 30-day public comment period on the draft operating permit from April 15, 2013, to May 15, 2013. 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 May 15, 2013, 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 Phillips66 so they may have an opportunity to respond to these comments as well.

**Summary of Public Comments**

Person/Group Commenting	Comment	Department Response
None received		

**G. Draft Permit Comments**

**Summary of Permittee Comments**

Permit Reference	Permittee Comment	Department Response
<b>Page 8 -- Part B (EU001 Fugitive Emissions).</b>	<b>The references in the table for Equipment leaks needs to be changed from 40 CFR 63.654 to 40 CFR 63.655. The Refinery MACT1 rules were updated and the part numbers changed. 40 CFR 63.654 now addresses heat exchangers. 40 CFR 63.655 addresses recordkeeping and reporting. Same issue for B.4 and B.6</b>	<b>Corrected as requested.</b>
<b>Page 9 and 10-- Part C (EU002 Storage Tanks).</b>	<b>The references in the table for Equipment leaks needs to be changed from 40 CFR 63.654 to 40 CFR 63.655. The Refinery MACT1 rules were updated and the part numbers changed. 40 CFR 63.654 now addresses heat exchangers. 40 CFR 63.655 addresses recordkeeping and reporting. Same issue for C.8.</b>	<b>Corrected as requested.</b>
<b>Page 13 -- Part D (EU003 Product Bulk Loading</b>	<b>Condition D.11 needs to be changed from testing every 5 years to every 4 years to match the other conditions in the table and D.7 and D.15.</b>	<b>Corrected as requested.</b>

## SECTION IV. FUTURE PERMIT CONSIDERATIONS

### A. MACT Standards

40 CFR 63, Subparts R, CC, and EEEE (Organic Liquids Distribution (non-gasoline)) are applicable to this facility. 40 CFR 63 Subpart BBBBBB does not apply to #OP4056-04 because the sources covered under #OP4056-04 are “major” under this permit and therefore cannot also be considered ‘area’ sources. 40 CFR 63 Subpart CCCCCC is not applicable because it deals only with the dispensing facilities typically identified as “gas stations”.

### B. NESHAP Standards

As of September 28, 2009, 40 CFR 61, Subpart M is applicable to this facility. The Department is unaware of any proposed or pending NESHAP standard that may be promulgated that will affect the facility.

### C. NSPS Standards

40 CFR 60, Subpart A, VV, XX, and GGG, are applicable to this facility. The facility must comply with Subpart VV requirements as part of 40 CFR 63, Subpart CC, and with Subpart XX requirements as part of 40 CFR 63, Subpart R. The Department is unaware of any proposed or pending NSPS standard that may be promulgated that will affect the facility.

### D. Risk Management Plan

The Department is not aware of any substances stored at this facility which exceeds the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115. Therefore, 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 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. 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 is greater than major source thresholds.

Phillips 66 Pipeline does not currently have any emitting units that meet all the applicability criteria in ARM 17.8.1503 under Operating Permit #OP4056-04, and is therefore not currently required to develop a CAM Plan for the Billings Pipeline and Terminal Operations.