

AIR QUALITY PERMIT

Issued to: ConocoPhillips Company Permit #: 2946-02
P.O. Box 30198 Administrative Amendment Request Received: 12/01/04
Billings, MT 59107-0198 Department Decision on Administrative Amendment: 12/13/04
Permit Final: 12/29/04
AFS# 013-0022

An air quality permit, with conditions, is hereby granted to ConocoPhillips Company (ConocoPhillips) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740 *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

ConocoPhillips operates a bulk gasoline terminal, which stores and transfers petroleum products (gasoline and distillate) received from the Yellowstone Pipeline and distributes them to regional markets via tank truck. This facility is located in the NW¼ of Section 3, Township 20 North, Range 4 East, Cascade County, Montana, just east of the Great Falls city limits. The facility is known as the Great Falls bulk terminal. A complete listing of the emissions points is contained in the permit analysis.

B. Current Permit Action

A letter from ConocoPhillips dated November 24, 2004, and received by the Montana Department of Environmental Quality (Department) December 1, 2004, notified the Department that ConocoPhillips planned to install a 4,000-gallon vertical tank used to store a lubricity additive. Since the uncontrolled Potential to Emit (PTE) of the 4,000-gallon vertical tank is less than 15 tons per year of any regulated pollutant the tank was added to the permit under the provisions of ARM 17.8.745 Montana Air Quality Permits-Exclusion for De Minimis Changes. Permit #2946-02 has also been updated to reflect current permit language and rule references used by the Department.

Section II: Conditions and Limitations

A. Tank Truck Loading Rack

1. Loading of tank trucks shall be restricted to the use of submerged fill and dedicated normal service and/or switch loaded service (ARM 17.8.749).
2. ConocoPhillips shall be limited to a maximum of 88,200,000 gallons of gasoline throughput for the truck loadout operation during any rolling 12-month period (ARM 17.8.749).
3. ConocoPhillips shall be limited to a maximum of 88,200,000 gallons of distillate product throughput for the truck loadout operation during any rolling 12-month period (ARM 17.8.749).
4. ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

5. ConocoPhillips shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6-consecutive minutes (ARM 17.8.304).
6. ConocoPhillips 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).
7. ConocoPhillips shall treat all unpaved portions of access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.6. (ARM 17.8.749).

B. Inspection and Repair Requirements

1. Each calendar month, all valves, flanges, pump seals, and open-ended lines shall be inspected for total organic compound leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.749).
2. ConocoPhillips shall (ARM 17.8.749):
 - 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 not later than 15 calendar days after it is detected except as provided in Section II.B.3. below.
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.

C. Testing Requirements

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

D. Operational Reporting Requirements

1. ConocoPhillips shall document, by month, the gasoline and distillate throughput for the truck loadout operation. ConocoPhillips shall total the amount of throughput during the previous 12 months to verify compliance with the limitations in Sections II.A.2. and II.A.3. A written report of the compliance verification shall be submitted to the Department no later than March 15, and may be submitted along with the annual emission inventory (ARM 17.8.749).

2. A record of each monthly leak inspection required under Section II.B. of this permit shall be kept on file at the bulk terminal. 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)
 - e. Inspector's name and signature
3. ConocoPhillips shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission 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. For reporting purposes, the tanks shall be identified using the tank numbers 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 for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. ConocoPhillips shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a 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 emission 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 (ARM 17.8.745).
5. All records compiled in accordance with this permit must be maintained by ConocoPhillips as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – ConocoPhillips 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 (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if ConocoPhillips fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving ConocoPhillips 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 action 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, as amended by the 1991 Legislature, failure to pay the annual operation fee by ConocoPhillips may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

PERMIT ANALYSIS
 ConocoPhillips Great Falls Terminal
 Permit #2946-02

I. Introduction/Process Description

A. Permitted Equipment:

ConocoPhillips Company (ConocoPhillips) operates a bulk gasoline terminal that includes the following equipment:

<u>Source</u>	<u>Install.</u>	<u>Fuel Stored</u>	<u>Cap. (Bbls)</u>	<u>Type of Tank</u>
Loading Rack	1960			
T-90	1960	RVP 11.5 Gasoline	60000	Ext. Flt. Roof
T-91	1960	RVP 11.5 Gasoline	36000	Ext. Flt. Roof
T-92	1960	Jet Kerosene	36000	Ver. Fxd Roof
T-93	1960	Jet Kerosene	36000	Ver. Fxd Roof
T-94	1960	RVP 11.5 Gasoline	25000	Ext. Flt. Roof
T-95		Off Spec Product	500	Ver. Fxd. Roof

Additive Tanks

Fugitive Emissions*

Miscellaneous Emissions*

- See Section IV - emission inventory

B. Source Description

ConocoPhillips operates a bulk gasoline terminal, which stores and transfers petroleum products (gasoline and distillate) received from the Yellowstone Pipeline and distributes them to regional markets via tank truck. This facility is located in the NW¼ of Section 3, Township 20 North, Range 4 East, Cascade County, Montana, just east of the Great Falls city limits. The facility is known as the Great Falls bulk terminal.

C. Permit History

October 9, 1997, Permit #2946-00 was issued to Conoco, Inc. (Conoco), to exempt them from Subpart R applicability. Conoco's Great Falls bulk terminal was not required to obtain an air quality permit because this facility was constructed prior to November 23, 1968; however, Conoco requested a throughput limit on the facility to keep them below the 40 Code of Federal Regulations (CFR) 63, Subpart R applicability threshold.

A letter from ConocoPhillips dated January 3, 2003, and received by the Department of Environmental Quality (Department), on January 10, 2003, notified the Department that Conoco had changed its name to ConocoPhillips. The permit action changed the facility name from Conoco to ConocoPhillips. Permit #2946-01 was updated to reflect current permit language and rule references used by the Department. Permit #2946-01 replaced Permit #2946-00.

D. Current Permit Action

A letter from ConocoPhillips dated November 24, 2004, and received by the Department December 1, 2004, notified the Department that ConocoPhillips planned to install a 4,000-gallon vertical tank used to store a lubricity additive. Since the uncontrolled Potential to Emit (PTE) of the 4,000-gallon vertical tank is less than 15 tons per year of any regulated pollutant the tank was added to the permit under the provisions of ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. Permit #2946-02 has also been updated to reflect current permit language and rule references used by the Department. Permit #2946-02 replaces Permit #2946-01.

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 the location of any applicable rules and regulations and provide 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 Code Annotated (MCA).

ConocoPhillips shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited, 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 4 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

ConocoPhillips 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. (1) This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes. (2) 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 matter. (2) Under this rule, ConocoPhillips 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 matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. 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. (3) 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. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.
8. ARM 17.8.341 Standards of Performance for Hazardous Air Pollutants. The source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.
9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63. However, ConocoPhillips has reduced emissions below applicability threshold levels; therefore, 40 CFR Part 63, Subpart R does not apply to this source.

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. ConocoPhillips was not required to submit a permit application fee for the current permitting action because it is considered an administrative action.
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. This operation fee is based on the actual or estimated 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, as 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 which prorate 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 facility to obtain an air quality permit or permit alteration if they construct, alter or use any air contaminant sources that have the PTE greater than 25 tons per year of any pollutant. ConocoPhillips has the PTE more than 25 tons per year of VOC; therefore, an 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 are not subject to the Montana Air Quality Permit Program.
 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. ConocoPhillips was not required to submit an application for the current permit action because it is considered administrative.
 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. A BACT determination was not required for the current permit action because there are no new or altered sources permitted as a part of this action.
 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 ConocoPhillips 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 17.8.762 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 altered 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 1 year after the permit is issued.
12. 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 (Act), rules adopted under the Act, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. 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. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

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 since 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 source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) 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 Air Quality Permit #2946-02 for ConocoPhillips, the following conclusions were made:
 - a. The facility's PTE is greater than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for and one HAP and less than 25 tons/year for all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NSPS.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that the ConocoPhillips is subject to the Title V operating permit program.

III. BACT Determination

A BACT determination is required for each new or altered source. ConocoPhillips shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. Because this permit action is administrative, no BACT determination was completed.

IV. Emission Inventory

Tons/year

Source	VOC	NOx	CO	HAP
T- 90 Gasoline (RVP 11.5)	30.35			2.064
T- 91 Gasoline (RVP 11.5)	25.70			1.747
T-92 Jet Kerosene	0.50			0.034
T-93 Jet Kerosene	0.50			0.034
T- 94 Gasoline (RVP 11.5)	22.94			1.560
T-85 Off Spec Product	5.53			0.376
Additive Tanks	0.04			0.000
Truck Loading Rack	192.91			13.19
Fugitive Emissions	1.54			0.105
Miscellaneous Emissions	1.59			0.108
Total	281.59	0.00	0.00	19.15

HAP Speciation

HAP Speciation factors - Weight percent

	Ethyl							
	Benzene	Toluene	Benzene	Xylene	Hexane	ISO	MTBE	Total
Gasoline Vapor	0.009	0.013	0.001	0.005	0.016	0.008	0.016	0.068
Gasoline Liquid	0.013	0.063	0.013	0.065	0.018	0.031	0.022	0.225

Source	Tons/Year								
	VOC	Benzene	Toluene	Ethyl		Hexane	ISO	MTBE	Tot HAP *
				Benzene	Xylene				
T- 90 Gasoline (RVP 11.5)	30.35	0.273	0.395	0.030	0.152	0.486	0.243	0.486	2.064
T- 91 Gasoline (RVP 11.5)	25.70	0.231	0.334	0.026	0.128	0.411	0.206	0.411	1.747
T-92 Jet Kerosene	0.50	0.005	0.007	0.0005	0.003	0.008	0.004	0.008	0.034
T-93 Jet Kerosene	0.50	0.005	0.007	0.0005	0.003	0.008	0.004	0.008	0.034
T- 94 Gasoline (RVP 11.5)	22.94	0.206	0.298	0.023	0.115	0.367	0.184	0.367	1.560
T-95 Off Spec Product	5.53	0.050	0.072	0.006	0.028	0.088	0.044	0.088	0.376
Truck Loading (gasoline)	192.91	1.736	2.508	0.193	0.965	3.087	1.543	3.087	13.19
Fugitive Emissions	1.54	0.014	0.020	0.0015	0.0077	0.025	0.012	0.025	0.105
Miscellaneous Emissions	1.59	0.014	0.021	0.002	0.008	0.025	0.013	0.025	0.108
Total	281.55	2.53	3.66	0.280	1.41	4.50	2.25	4.50	19.15

Truck Loading Rack:

$$Ll = 12.46 (S \cdot P \cdot M / T)$$

Ll = Loading loss factor (lb/1000 gal)

S = Saturation factor AP-42 (Table 4.4-1) = 0.60
Submerged loading: dedicated normal service

P = True vapor pressure of liquid (psia)

M = Molecular weight of the vapor (lb/lb-mole)

T = Ambient temperature (from annual average meteorological data) (deg R)

Product Loaded	Saturation Factor (S)	TVP (psia) (P)	MW (lb/lb-mole) (M)	Temp (deg R) (T)	Uncontrolled		
					Emission Factor (Ll) (lb/kgal)	Annual Thru-put (kgal/yr)	Uncontrl'd Emission (tpy)
Gasoline	0.6	4.6269	64	506.08	4.374	88200	192.91

Fugitive Emissions:

Component	Number	Emission Factor	VOC Emissions
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Type	Existing	(lb/hr/cmpnt)	(tpy)
Valves	143.0	9.48e ⁻⁰⁵	0.059
Connections	515.0	1.72e ⁻⁰⁵	0.039
Open End Lines	47.3	6.50e ⁻⁰³	1.347
Load Arms	7.7	8.70e ⁻⁰⁴	0.029
Pumps & Meters	13.2	1.17e ⁻⁰³	0.068
			1.54
Miscellaneous Emissions: VOC Total			1.59

V. Existing Air Quality

ConocoPhillips is located in the NW¼ of Section 3, Township 20 North, Range 4 East, in Cascade County, Montana, just east of the Great Falls city limits. This area is considered unclassified for all criteria pollutants, with the exception of CO. The majority of the emissions from the facility are VOC.

VI. Ambient Air Impact Analysis

The Department did not conduct ambient air modeling for this permit action. The Department believes it will not cause or contribute to a violation of any ambient air quality standard because the permit action was accomplished under the provisions of ARM 17.8.745.

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 and determined there are no taking or damaging implications.

VIII. Environmental Assessment

This permitting action the permit action was accomplished under the provisions of ARM 17.8.745 and is considered an administrative action; therefore, an Environmental Assessment is not required.

Permit Analysis Prepared By: Chris Ames

Date: December 8, 2004