



Montana Department of  
**ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

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December 16, 2011

Randall Richert, P.E., QEP  
ConocoPhillips Company  
Billings Refinery  
P.O. Box 30198  
Billings, MT 59107

Dear Mr. Richert:

The Department of Environmental Quality (Department) has made its decision on the Montana Air Quality Permit application for ConocoPhillips Company (Billings Refinery). The application was given permit number 2619-28. The Department's decision may be appealed to the Board of Environmental Review (Board). A request for hearing must be filed by January 17, 2012; however, this permit shall become final on January 4, 2012, unless the Board orders a stay on the permit.

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-9741

Skye Hatten, P.E.  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-5287

VW: SH  
Enclosures

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* ConocoPhillips Company – Billings Refinery

*Montana Air Quality Permit (MAQP) Number:* 2619-28

*Preliminary Determination Issued:* November 30, 2011

*Department Decision Issued:* December 16, 2011

*Permit Final:*

1. *Legal Description of Site:* ConocoPhillips Company - Billings Refinery (ConocoPhillips) operates a petroleum refinery located at 401 South 23<sup>rd</sup> Street, Billings, Montana, in the NW<sup>1</sup>/<sub>4</sub> of Section 2, Township 1 South, Range 26 East, in Yellowstone County. Jupiter operates a sulfur recovery facility, within the petroleum refinery area described above, at 2201 7<sup>th</sup> Avenue South, Billings, Montana. The Jupiter facility is operated as a joint venture, of which ConocoPhillips is a partner. ConocoPhillips is responsible for maintaining air permit compliance at Jupiter's sulfur recovery facility.
2. *Description of Project:* On September 13, 2011, October 7, 2011, October 25, 2011, and October 31, 2011, the Department of Environmental Quality (Department) received elements to fulfill a complete air quality permit application from ConocoPhillips. ConocoPhillips requested a modification to their existing air quality permit to incorporate conditions and limitations associated with the proposed installation of a Backup Coke Crusher. A Backup Coke Crusher is necessary to ensure crushed coke is available at all times for the facility, particularly during instances when the main Coke Crusher is not operational as a result of mechanical failure and/or maintenance activities. The components of the Backup Coke Crusher include the coke crushing unit as well as a diesel fired engine and compressor. The proposed engine would have an EPA certification of Tier 3 or higher.
3. *Objectives of Project:* The primary objective of the project is to maintain coke crushing abilities at the refinery.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because ConocoPhillips demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in Montana Air Quality Permit (MAQP) #2619-28.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

**SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:** The following comments have been prepared by the Department.

- A. Terrestrial and Aquatic Life and Habitats
- B. Water Quality, Quantity and Distribution
- C. Geology and Soil Quality, Stability and Moisture
- D. Vegetation Cover, Quantity, and Quality

The proposed project would have a minor affect in these areas because the additional equipment would result in a minor increase in facility emissions. These increased emissions could result in increased pollutant deposition in the surrounding area which may result in a minor impact in the areas referred to in Sections 7.A-D of this EA. However, the emissions increases fall below significance levels identified within the rules associated with the Prevention of Significant Deterioration (PSD) permitting program. The Department has determined that any impacts would be minor due to the dispersion characteristics of the pollutants, the relatively low level of potential emissions, and conditions that would be placed in MAQP #2619-28.

- E. Aesthetics

This project would be constructed on land already used for industrial activities. Therefore, any additional impacts on aesthetics would be minimal.

- F. Air Quality

The proposed project would result in an increase in emissions of air pollutants. However, the emissions increases fall below significance levels identified within the rules associated with PSD. MAQP #2619-28 would contain conditions limiting the engine operations and requiring

that the engine meet or exceed EPA Tier 3 emission standards. ConocoPhillips would be required to maintain compliance with the Billings/Laurel SO<sub>2</sub> State Implementation Plan (SIP), current permit conditions, and state and federal ambient air quality standards.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search identified the following species of special concern located near the project area: Peregrine Falcon (Sensitive), Pinyon Jay, Veery, Loggerhead Shrike (Sensitive), Brewer's Sparrow (Sensitive), Grasshopper Sparrow, Yellowstone Cutthroat Trout (Sensitive), Sauger (Sensitive), Spotted Bat (Sensitive), Spiny Softshell (Sensitive), Greater Short-horned Lizard (Sensitive), Common Sagebrush Lizard, Western Hog-nosed Snake (Sensitive), and Milksnake (Sensitive). In this case, the project area was defined by the section, township, and range of the location with an additional 1-mile buffer zone.

This permitting action is expected to have minor impacts to terrestrial and aquatic life and/or their habitat based on minor increases in facility emissions; therefore, it is unlikely that unique, rare, threatened, or endangered species would experience any impacts. The project would occur at a previously disturbed industrial site, within allowable levels of emissions. However, there is a minor increase in potential air emissions, as described in Section 7.F. of this permit, which may have a minor impact on the surrounding area.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed project would not consume any significant additional energy or water resources. There would be no discharges to ground or surface waters. Further, as described in Section 7.F. of this EA, pollutant emissions generated would have minimal impacts on air quality in the immediate and surrounding area. The engine would have a minor impact on air resources because it would be a source of air pollutant emissions. MAQP #2619-28 would have conditions and limitations that would ensure that this impact would be minor

I. Historical and Archaeological Sites

This project would not disturb a greater land surface than is already occupied by the refinery. This project would occur within the boundaries of the refinery. The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction and operation. SHPO conducted a cultural resource file search of the proposed area, and found a few previously recorded sites within the designated search locales. It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are to be altered and are over fifty years old, SHPO recommends that they be recorded and a determination of their eligibility be made. No buildings over fifty years of age are proposed to be altered as a result of this project. Therefore, no impacts to any historical and archaeological sites would be anticipated.

J. Cumulative and Secondary Impacts

Cumulative and secondary impacts from this project would be minor because there is only a minor increase in allowable NO<sub>x</sub>, SO<sub>2</sub>, VOC, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, and CO emissions. As described in Section 7.F of this EA, the impact on the air resource in the area of the facility would be

minor because the facility would be required to maintain compliance with other limitations affecting the overall emissions from the facility. Any cumulative or secondary impacts as a result of this project are considered to be minor.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production				X		Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment			X			Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

**SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:** The following comments have been prepared by the Department.

**A. Social Structures and Mores**

The proposed facility would not cause a disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the project would occur at a previously disturbed industrial site. The proposed project would not change the nature of the site.

**B. Cultural Uniqueness and Diversity**

The proposed project would not cause a change in the cultural uniqueness and diversity of the area because the land is currently used as a petroleum refinery; therefore, the land use would not be changing. The use of the surrounding area would not change as a result of this project.

**C. Local and State Tax Base and Tax Revenue**

This project would have a minor effect on the local and state tax base and tax revenue because the proposed project is intended to maintain coke crushing abilities during mechanical failure and/or maintenance activities. Therefore, tax revenue from the facility may increase slightly.

#### D. Agricultural or Industrial Production

The proposed project would not result in a reduction of available acreage or productivity of any agricultural land; therefore, agricultural production would not be affected. The refinery's overall capacity would not change as a result of the proposed project. Therefore, industrial production would not be affected.

#### E. Human Health

As described in Section 7.F of this EA, the impacts from this facility on human health would be minor because the emissions from the facility would increase, but not significantly from prior levels. The air quality permit for this facility would incorporate conditions to ensure that the facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

#### F. Access to and Quality of Recreational and Wilderness Activities

This project would not have an impact on recreational or wilderness activities because the project would occur entirely within an existing industrial site. This site is far removed from recreational and wilderness areas or access routes. This project would not result in any changes in access to and quality of recreational and wilderness activities.

#### G. Quantity and Distribution of Employment

This project would result in minor impacts to the quantity and distribution of employment at the facility because temporary construction-related positions could result from this project, but any impacts to the quantity and distribution of employment would be minor.

#### H. Distribution of Population

The proposed project does not involve any physical or operational change that would affect the location, distribution, density, or growth rate of the human population.

#### I. Demands for Government Services

The demands on government services would experience a minor impact. The primary demand on government services would be the acquisition of the appropriate permits by the facility (including local building permits, as necessary, and a state air quality permit) and compliance verification with those permits.

#### J. Industrial and Commercial Activity

The refinery's overall capacity would not change as a result of the proposed project. Therefore, no impacts on industrial activity at ConocoPhillips would be expected. Industrial and commercial activity in the neighboring area is not anticipated to be affected by issuing MAQP #2619-28.

#### K. Locally Adopted Environmental Plans and Goals

There are no locally adopted environmental plans and goals that are expected to be affected by the proposed change to emission limitations. ConocoPhillips must continue to comply with the State Implementation Plan and associated stipulations for the Billings/Laurel area.

## L. Cumulative and Secondary Impacts

Cumulative and secondary impacts from this project would be minor because there is only a minor increase in allowable NO<sub>x</sub>, SO<sub>2</sub>, VOC, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, and CO emissions. Additionally, as described in Section 7.F of this EA, the impact on the air resource in the area of the facility would be minor because the facility would be required to maintain compliance with other limitations affecting the overall emissions from the facility. Any cumulative or secondary impacts as a result of this project are considered to be minor.

*Recommendation:* No Environmental Impact Statement (EIS) is required.

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* The current permitting action is for the construction and operation of a Backup Coke Crusher, which includes the coke crushing unit as well as a diesel fired engine and compressor. MAQP #2619-28 includes conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, Department of Environmental Quality – Water Protection Bureau, Department of Environmental Quality – Waste and Underground Tank Management Bureau

*Individuals or groups contributing to this EA:* Department of Environmental Quality – Air Resources Management Bureau, Department of Environmental Quality – Water Protection Bureau, Department of Environmental Quality – Waste and Underground Tank Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

*EA prepared by:* Skye Hatten

*Date:* November 14, 2011