Montana Department of
ENVIRONMENTAL QUALITY
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February 9, 2012

Dana Leach
Montana Refining Company
1900 10th Street North East
Great Falls, MT 59404

Dear Mr. Leach:

Montana Air Quality Permit #2161-25 is deemed final as of February 9, 2012, by the Department of Environmental Quality (Department). This permit is for a petroleum refinery. 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 Section Supervisor
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VW:JO

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Permitting and Compliance Division
Air Resources Management Bureau
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FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Montana Refining Company (MRC)
1900 10th Street North East
Great Falls, MT 59404

Montana Air Quality Permit Number (MAQP): #2161-25

Preliminary Determination Issued: 12/21/2011
Department Decision Issued: 01/24/2012
Permit Final: 02/09/2012

1. *Legal Description of Site*: MRC is located at 1900 10th Street N.E. in Great Falls, Montana. The legal description of the site is the NE¼ of Section 1, Township 20 North, Range 3 East, Cascade County, Montana.

2. *Description of Project*: On July 6, 2011, MRC submitted a permit application and subsequent modeling demonstration to add a boiler (#3 Boiler) capable of firing refinery fuel gas or natural gas to the petroleum refinery. The Department deemed the application incomplete on August 4, 2011 and MRC provided additional information in response to the Department's letter on September 26, 2011. The primary purpose of the #3 Boiler is to supplement the two existing boilers #1 and #2 that provide process steam to the refinery. The design burner heat input capacity for Boiler #3 varies depending upon fuel characteristics from 59.7 to 60.5 million british thermal units per hour (MMBtu/hr).

3. *Objectives of Project*: To install and construct a new boiler (#3 Boiler) that will provide steam to the existing refinery and supplement the #1 and #2 Boilers.

4. *Additional Project Site Information*: This refinery has operated at this site since the 1920's. The refinery currently employs 90 people, and is located along the Missouri River in Great Falls, Montana.

5. *Alternatives Considered*: In addition to the proposed action, the Department 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 MRC demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls*: A listing of the enforceable permit conditions and a permit analysis would be contained in MAQP #2161-25.

7. *Regulatory Effects on Private Property Rights*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

8. *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 Resource				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

Impacts on terrestrial and aquatic life would be minimal. MRC is an existing facility that is currently permitted to use two boilers (#1 and #2). MRC requested to add a third boiler to supplement the existing boiler system and to possibly replace the old boilers in the future. Because the plant is an existing facility, a slight increase in emissions would cause little additional impacts to terrestrial or aquatic life and habitats. During construction, the area would change slightly but overall there would be minor changes. Therefore, any associated impacts would be minor.

B. Water Quality, Quantity, and Distribution

Any impacts on water quality, quantity or distribution, if any, would be minor because this permit modification would not require additional water. There is the potential for impacts to groundwater or stormwater due to spills and leaks, but these risks should be addressed in the facility's SPCC plan. Therefore, the overall characteristics of the area would not change as a result of the proposed project and any associated impacts would be minor.

C. Geology and Soil Quality, Stability, and Moisture

The proposed permit modification would have minor impacts on geology and soil quality, stability and moisture because deposition of air pollutants on soils would be minor (see Section 8.F of this EA). Only minor amounts of additional pollution would be generated. Pollutants

would be widely dispersed before settling upon vegetation and surrounding soils (see Section 8.D of this EA). The permit modification would not result in minor disturbance of soils during construction because the area has been previously disturbed and currently occupied by the petroleum refinery. Therefore, any additional effects upon geology and soil quality, stability, and moisture at this site would be minor and short-term.

D. Vegetation Cover, Quantity, and Quality

Minor or no impacts would occur on vegetative cover, quality, and quantity because operation of the #3 Boiler would be used to supplement steam supply (from the #1 and #2 Boiler). The boiler would be located in an industrial area within an existing refinery. Boiler emissions would contribute minor additional pollutants but the pollutants would be greatly dispersed. Any corresponding deposition on vegetation from the proposed project would be minor (see Section 8.F of this EA). Therefore, the Department determined that any associated impacts upon vegetation would be minimal.

E. Aesthetics

The existing operation would be visible and could create additional noise while operating; however, impacts to aesthetics associated with adding a new boiler would result in minor changes to aesthetics. MAQP #2161-25 would include conditions to control emissions, including visible emissions, from the plant. Therefore, impacts to area aesthetics as a result of the proposed permit modification would be minor.

F. Air Quality

Air quality impacts from the proposed project would be minor. MAQP #2161-25 includes emission limits for the #3 Boiler and additional pollutant deposition from the proposed project would be minimal. The pollutants emitted are mainly gaseous, and would be widely dispersed (from factors such as wind speed and wind direction) and would have minimal deposition on the surrounding area (due to site topography of the area and minimal vegetative cover in the area). Additionally, MRC submitted a modeling demonstration to show that the new boiler would not cause or contribute to a violation of the NAAQS. Therefore, air quality impacts in this area as a result of this permit action would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

Since a refinery has operated at this site since the 1920's and the area is fenced, the permit modification would not result in any disturbance to unique endangered, fragile, or limited environmental resources. The Department determined that the proposed project would not impact any species of concern.

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

There will be no additional demands on water resources due to this permit modification. There will be minimal impacts to air resources because the source is located at an existing industrial source of emissions. Air pollutants generated due to this modification would be limited and widely dispersed (see Section 8.F of this EA). There would be a negligible change in energy requirements because this boiler consumes a minimal amount of energy when compared to the rest of the existing facility. Overall, any impacts of the proposed project to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

The proposed project would occur within the boundaries of the MRC facility, a previously disturbed industrial site. The Montana State Historic Preservation Office previously informed the Department that there is low likelihood of adverse disturbance to any known archaeological or historic site, given previous industrial disturbance within a given area. Because there would be no additional ground disturbance, there would be no known effect on any historic or archaeological site.

J. Cumulative and Secondary Impacts

Additional emissions generated from the proposed project would, at most, result in only minor impacts to the area of operations because the proposed equipment is located within the existing refinery facility, which has other sources of emissions that are much larger. This modification would be minor in comparison and the overall, cumulative and secondary impacts to the physical and biological aspects of the human environment would be minor.

9. *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	Unknow n	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 project would cause no disruption to the social structures and mores in the area because the modification would occur within an existing industrial source. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #2161-25. No native or traditional communities would be affected by the proposed project operations and no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The predominant use of the area is an existing refinery. Because the predominant use of this area has historically been refinery operations, and the fact that the refinery's operation would result in minor changes and limited emissions, there would be minor impacts resulting from this permit modification. Therefore, the cultural uniqueness and diversity of the area would not be impacted by this permit action.

C. Local and State Tax Base and Tax Revenue

The proposed project would have little, if any, impact on the local and state tax base and tax revenue because the proposed project would be at an existing industrial source. The proposed project would not require any additional employees. Thus, only minor impacts to the local and state tax base and revenue would be expected.

D. Agricultural or Industrial Production

The permit modification would occur within an existing refinery that is located in an industrial/commercial area. The project would not result in temporary ground disturbance. There would be no impact to existing agricultural land as the new boiler would be located within the already established industrial area. There are no expected effects on agricultural production, and minor effects on industrial production.

E. Human Health

MAQP #2161-25 would incorporate conditions to ensure that the proposed permit modification would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. The additional emissions from this permit modification would be minimal. As described in Section 8.F of this EA, any additional emissions that would result would be minimized by conditions in MAQP #2161-25. Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

This project would not have an impact on recreational or wilderness activities because the new boiler would be constructed within an existing operation. The project would not result in any changes in access to and quality of recreational and wilderness activities.

G. Quantity and Distribution of Employment

There may be a few temporary employment opportunities during construction of the boiler. However, MRC does not anticipate any new employees as a result of this project. No individuals would be expected to permanently relocate to this area of operation as a result of the proposed project. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

No individuals would be expected to permanently relocate to this area of operation as a result of the proposed project. Therefore, the proposed project would not impact the normal population distribution in the area of operation.

I. Demands of Government Services

Minor government services would be required for acquiring the appropriate permits for the proposed project and verifying compliance with the permits that would be issued. Therefore, the Department believes that the demands for government services would be minor.

J. Industrial and Commercial Activity

MRC's proposed new boiler would locate at the existing refinery. The boiler would be used to supplement the existing boilers (#1 and #2). Overall, the refinery's production would remain the same. Therefore, the Department believes there would be minor changes to industrial and/or commercial activity.

K. Locally Adopted Environmental Plans and Goals

MAQP #2161-25 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, which should be consistent with any locally adopted environmental plan or goal for operating at this proposed site.

L. Cumulative and Secondary Impacts

The proposed project would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source is an existing operation. Further, no other industrial operations are expected to result from the permitting of this facility. The permit modification would not result in any permanent increases in traffic in the immediate area. Very little, if any increases in economic impacts to the local economy would be expected due to this permit modification. Thus, only minor and temporary cumulative and secondary effects would result.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility are negligible or minor; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Montana Department of Environmental Quality (Air Resources Management Bureau), Montana State Historic Preservation Office (Montana Historical Society).

EA prepared by: Jenny O'Mara
Date: December 7, 2011