



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

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PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: December 3, 2012

Name of Applicant: OWL LLC

Source: Incinerator

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 4802-00.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by January 2, 2013. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

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 by the date stated in the Department's Decision on this permit. 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, MT 59620.

For the Department,

Julie Merkel
Air Permitting Program Supervisor
Air Resources Management Bureau
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Environmental Engineer
Air Resources Management Bureau
(406) 444-2467

JM: EW
Enclosures

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
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DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: OWL LLC
P.O. Box 770
Culbertson, MT 59218

Montana Air Quality Permit Number (MAQP): 4802-00

Preliminary Determination Issued: 12/3/12

Department Decision Issued:

Permit Final:

1. *Legal Description of Site:* The location of the OWL LLC (OWL) incinerator would be in the SE¼ of Section 27, Township 29 North, Range 54 East, in Roosevelt County, Montana.
2. *Description of Project:* OWL proposes to operate a diesel-fired incinerator with a maximum rated incineration capacity of 225 pounds per hour (lb/hr). The total hours of burn time shall not exceed 1,750 hours per year. The unit would be used to destroy filter bags used to filter the production water created during the oil drilling and production process. Entrained solids would be removed from the used filter bags prior to incineration. The entrained solids would not be burned in the incinerator, they would be brought to a nearby hazardous waste disposal facility. The unit may also be used to destroy animal carcasses. A 5-horsepower (hp) diesel engine-driven generator would supply power to the unit. The incinerator utilizes a secondary combustion chamber with an auxiliary afterburner to facilitate complete combustion of volatile emissions.
3. *Objectives of Project:* The objective of the project is to provide a safe means of disposal of used filter bags from the oil drilling and production process.
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 OWL 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 MAQP #4802-00.
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

Emissions from the proposed project would affect terrestrial and aquatic life and habitats in the proposed initial project area. The incinerator is a source of air emissions and its operation would result in an increase in air pollutants. However, as detailed in Section V and Section VI of the permit analysis, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Further, the proposed incinerator would not require the construction of any facilities and would operate within the OWL facility grounds in a secure, gated space. Overall, any impact to the terrestrial and aquatic life and habitats of the proposed project area would be minor.

B. Water Quality, Quantity and Distribution

The project would not be expected to affect water quantity or distribution in the project area. The incinerator does not discharge or use water during operation.

Emissions from the project may affect water quality in the project area due to air pollutant deposition. However, any emissions and resulting deposition impacts from the project would be very minor due to the low concentration of those pollutants emitted.

C. Geology and Soil Quality, Stability and Moisture

The project would not be expected to affect the geology, stability, and moisture of the project area. The proposed incinerator would not require any facility construction and would operate on an existing concrete pad.

Proper incinerator operation would result in minor air pollution emissions to the ambient environment. These pollutants would deposit on the soils in the surrounding area. However, any impact from deposition of these pollutants would be very minor due to dispersion characteristics and the low concentration of those pollutants emitted.

D. Vegetation Cover, Quantity, and Quality

Air emissions from the project may affect vegetation cover, quantity, and quality in the project area. However, any emissions and resulting impacts from the project would be minor due to the dispersion characteristics and the low concentration of those pollutants emitted.

Further, the incinerator would operate within an existing secure, gated space on a concrete pad. Overall, any impact to the vegetation cover, quantity, and quality of the proposed project area would be minor.

E. Aesthetics

The project would result in a minor impact to the aesthetic nature of the project area. The incinerator would operate outside and would be visible. Any visible emissions from the source would be limited to 10% opacity. Therefore, the project would result in only a minor impact to aesthetics of the area.

F. Air Quality

The project would result in the emissions of various criteria pollutants and HAPs to the ambient air in the project area. However, it has been demonstrated by air dispersion modeling that any air quality impacts from the project would be minor and would constitute negligible risk to human health and the environment.

The Department conducted air dispersion modeling to determine the ambient air quality impacts from HAPs that would be generated by the incinerator. The SCREEN3 model was selected for the air dispersion modeling. The full meteorology option was selected to provide a conservative result. Receptors were placed from 5 to 50,000 meters in a simple terrain array.

Stack parameters and emission rates used in the SCREEN3 model are contained in Section V of the permit analysis and are on file with the Department. Stack velocity and gas temperature were taken from data provided by the manufacturer of the incinerator or assumed based on available information. OWL has accepted federally enforceable permit conditions limiting the number of hours per year that the incinerator can be used to combust materials in order to minimize potential air emissions. Due to the dispersion characteristics and low levels of pollutants that would be emitted from the proposed project the Department determined that any impacts to air quality would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operations, the Department contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern associated with

the proposed site location. Search results concluded there are eight species occurrence reports for eight species of concern within the vicinity of the proposed project area. These species include the bird species of Black-Crowned Night-Heron, White-Faced Ibis, Whooping Crane, Franklin's Gull, and Forster's Tern; and the fish species of Northern Redbelly Dace, Pearl Dace, and Blue Sucker.

The species occurrence report for the bird species of Whooping Crane encompasses a vast area spanning numerous sections (1,866,376 acres) to the east of the proposed project area, including the eastern portion of Section 27 where the proposed project would occur. Whooping Cranes are an endangered species and warrant the highest levels of conservation effort. They are migratory and reside on Montana during their spring and fall migrations between central Canada and the Gulf of Mexico, presumed to commonly arrive in the state in mid-April and depart by mid-October. The observed habitat for the Whooping Crane is in the marsh present at Medicine Lake National Wildlife Refuge and Red Rock Lakes National Wildlife Refuge. Observations of individual birds in other areas of the state include grain and stubble fields as well as wet meadows, wet prairie habitat, and freshwater marshes that are usually shallow and broad with safe roosting sites and nearby foraging opportunities. The proposed project would involve the disturbance of less than 1 acre of land within agricultural pasture. The incinerator would be placed on a concrete slab. The proposed project area lies very close to existing disturbed areas. The small footprint of this project is expected to have only a minor, if any, impact on potential preferred habitats of the Whooping Crane.

The species occurrence reports for the bird species of Black-Crowned Night-Heron, White-Faced Ibis, Franklin's Gull, and Forster's Tern are approximately 2 miles to the northwest of the proposed project location and roughly centered on Manning Lake. The MNHP Montana Field Guide indicates that their preferred habitat is wetlands. The proposed project location is not within any wetlands and is presumed to have little to no impact on the surrounding habitats for these species.

The species occurrence reports for the fish species of Northern Redbelly Dace, Pearl Dace, and Blue Sucker are within the Big Muddy Creek which is located about a mile south and a mile west of the proposed project location. Because the project area is not along the stream banks of the Big Muddy Creek and is expected to have only minor, if any, impacts to water quality, quantity, and distribution, it is presumed to have little to no impact on the surrounding habitats for these species.

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

The proposed project would result in no demands on the environmental resource of water and minor demands on the environmental resource of air as discussed in Section 7.B and 7.F, respectively, of this EA. Further, as detailed in Section V and Section VI of the permit analysis, project impacts on air resources in the proposed project area would be minor due to dispersion characteristics and the low concentration of those pollutants emitted. Finally, because the project is small by industrial standards, little energy would be required for operation and the resulting impact on energy resources would be minor.

I. Historical and Archaeological Sites

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/operation. Search results concluded that there have been no previously recorded sites within the vicinity of the area proposed for the project. According to correspondence from SHPO, there is a low likelihood that cultural properties will be impacted. Therefore, a recommendation for a cultural resource inventory is unwarranted at this time.

However, should cultural materials be inadvertently discovered during this project the SHPO office must be contacted and the site investigated. The proposed project would not require only a small amount of construction and land disturbance; therefore, there is no perceived impact to historical and archaeological sites.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the environment in the immediate area would be minor. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4802-00.

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 project would not have any impact on social structures and mores because it would not require any construction or land disturbance to operate. In addition, the initial location is within a developed site inside the city limits of Great Falls.

B. Cultural Uniqueness and Diversity

The proposed project would not impact the cultural uniqueness and diversity of the area because the initial location of the incinerator is within an existing developed location.

C. Local and State Tax Base and Tax Revenue

OWL has indicated that an additional employee would be added as a result of this project. The operation of the equipment would require the use of diesel as fuel which the purchase of would contribute towards some tax revenue. Therefore, minimal, if any impacts to the local and state tax base and tax revenue are anticipated from this project.

D. Agricultural or Industrial Production

The proposed project would have a minor impact on agricultural land because its construction would involve the disturbance of approximately an acre of land currently available for that purpose. There is no industrial production associated with the operation of the incinerator. Furthermore, the potential-to-emit of the proposed project is extremely small. Based on the small amount of emissions, the dispersion of those emissions, and the small disturbance of agricultural land; a minor impact would be expected to agricultural or industrial production in the area.

E. Human Health

As described in Section VI of the Permit Analysis, modeling and analysis of hazardous air pollutants showed negligible risk to human health. Furthermore, the potential-to-emit of conventional pollutants would be extremely small. MAQP #4802-00 contains enforceable conditions limits designed to minimize the impacts of potential air pollutant emissions. Impacts to human health would be minor, if any discernible amount at all.

F. Access to and Quality of Recreational and Wilderness Activities

There is no current access to recreational or wilderness activities at the proposed initial location. No change to access of recreational and wilderness activities in the surrounding area would be expected. Permit conditions would require opacity of the emissions to be 10% or less while operating. The potential-to-emit of the proposed incinerator would be very small. Therefore, no discernible impacts to the access to quality of recreational and wilderness activities would be expected as a result of this project.

G. Quantity and Distribution of Employment

OWL has indicated that an additional employee would be added as a result of this project. Therefore, there would be a minor impact to the quantity and distribution of employment.

H. Distribution of Population

While OWL has indicated that it would add an additional employee for the proposed project, no other factors affecting distribution of population would be expected. Therefore, no impacts to the distribution of population would be expected.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Overall, demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would result in a minor impact to the local industrial and commercial activity because the incinerator would require a small amount of construction and would present a new method of disposal for the dirty filter bags from oil and gas exploration occurring in the area.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals this project may impact. The state standards would be protective of the proposed project area.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social environment in the immediate area due to the relatively small size of the operation. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #4802-00.

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 an incinerator to dispose of used filter bags from the oil and gas exploration process and animal carcasses. MAQP #4802-00 includes conditions and limitations to ensure the facility will 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

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau

EA prepared by: Ed Warner
Date: 11/9/2012