



PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: November 13, 2009

Name of Applicant: Montana-Dakota Utilities Co.

Source: Billings Landfill Gas Extraction Facility

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 4479-00.

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 December 14, 2009. 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,

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VW:EW
Enclosures

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

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Montana-Dakota Utilities Co.

Montana Air Quality Permit Number: 4479-00

Preliminary Determination Issued: 11/13/09

Department Decision Issued:

Permit Final:

1. *Legal Description of Site:* SW¼ of Section 29, Township 1 South, Range 26 East, in Yellowstone County
2. *Description of Project:* MDU proposes to operate a LFG extraction and purification facility at the City of Billings Municipal Solid Waste Landfill. The facility will collect the LFG from wells, purify it, and sell the purified product as pipeline quality natural gas. Tail gas streams from the purification process will be combusted either in flares or RICE-driven electric generators. A utility flare will serve as a backup pollution control device capable of combusting the entire LFG stream in instances where the facility cannot purify the LFG.
3. *Objectives of Project:* The objective of the project is to capture the LFG gas that is produced from decomposing landfill waste, purify it, and sell it as pipeline quality natural gas.
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 MDU 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 #4479-00.
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
- B. Water Quality, Quantity and Distribution
- C. Geology and Soil Quality, Stability and Moisture
- D. Vegetation Cover, Quantity, and Quality

The MDU LFG extraction facility would be considered a minor source of emissions and would result in a slight increase in NO_x, CO, VOC, SO₂, and PM₁₀. However, the facility would be located within and immediately adjacent to an existing landfill and would encompass approximately 25-30 acres of the 120 acre landfill site. Therefore, only minor effects on terrestrial and aquatic life and habitats, water quality, quantity and distribution, geology and soil quality, stability, and moisture, and vegetation cover, quantity, and quality would be expected as a result of the proposed facility.

- E. Aesthetics

The proposed facility would require some construction of buildings and equipment that would be visible. However, the facility would be located within and immediately adjacent to the boundaries of an existing landfill and would encompass approximately 25-30 acres of the 120 acre landfill site. The generator engines would create additional noise in the area. The nearest residential buildings to the initial phase of the proposed site (gas extraction wells) would be approximately 1,000 feet to the west. The future expansion of the proposed facility would be approximately 621 feet from a residential trailer park community. The process equipment location would be approximately 3,675 feet from the nearest residential building. Therefore, only minor effects on aesthetics would be expected as a result of the proposed facility.

- F. Air Quality

The air quality impacts from the facility would be minor because MAQP #4479-00 would include conditions limiting emissions of regulated pollutants. The facility would be located at an existing landfill and would encompass approximately 25-30 acres of the 120 acre landfill

site. In addition, the facility would be considered a minor source of air pollution by industrial standards and would be located in an area where good air dispersion would occur. Therefore, air quality impacts would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The applicant contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern in the vicinity of the City of Billings Municipal Solid Waste Landfill. The MNHP identified six species of concern that could potentially occupy the same area as the proposed LFG extraction facility. These are the bald eagle, spotted bat, spiny softshell turtle, greater short-horned lizard, western hog-nosed snake, and milksnake. However, the proposed site of the LFG extraction system would be within and immediately adjacent to the City of Billings Municipal Solid Waste Landfill which is owned by the city of Billings and is currently an industrial site. The site is an active landfill and no native wildlife habitat exists within the landfill. Some equipment would be installed on one acre of undisturbed land adjacent to the landfill. Considering that the proposed facility would be a minor source of emissions and be located primarily on an existing industrial site with no native wildlife habitat, no impacts to any unique endangered, fragile, or limited environmental resources are expected.

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

The proposed facility would require that three-phase 480-volt power be brought into the site to power 2,100 amps of service. The facility could also potentially utilize some water for dust control on access roads. Part of the project objective would be to use some tail gas exhaust from the LFG purification process to run RICE-driven electric generators to reduce the demand for energy. The demands on environmental resources of water, air, and energy would be minor because the project would be considered small by industrial standards and would be producing a portion of its own energy requirements during normal operation.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society for a cultural resource file search for the area of the proposed project location. According to their records there are no previously recorded sites in the area of the proposed project location. The location is a currently active landfill and no new historical or archaeological sites are expected to be found within the proposed project area.

J. Cumulative and Secondary Impacts

Cumulative or secondary impacts are expected to be minor as a result of the proposed project. There will be some increase in air pollutant emissions in the area. The facility will require the construction of some buildings and equipment, along with the installation of electric service. The facility would be considered a minor source of emissions by industrial standards and not expected to have more than a minor cumulative and secondary impacts.

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 operation would cause no disruption to the native or traditional lifestyles or communities of the area because the facility would be located within and immediately adjacent to an existing landfill. No current native or traditional lifestyles or communities exist at the proposed site location.

B. Cultural Uniqueness and Diversity

The operation would have no impact on the cultural uniqueness and diversity of the area because the facility would be located within and immediately adjacent to an existing landfill. No current culturally unique or diverse activities are occurring at the proposed site location..

C. Local and State Tax Base and Tax Revenue

The project would have a minor effect on the local and state tax base and revenue due to the taxes generated from the purchase of supplies and the employee payroll.

D. Agricultural or Industrial Production

The proposed project would not displace or otherwise affect any agricultural land or practices because the facility would be located within and immediately adjacent to an existing landfill. The proposed operations would have a minor affect on the local industrial production of pipeline quality natural gas.

E. Human Health

Permit #4479-00 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

The proposed operations would not affect any access to or aesthetic attribute of recreational and wilderness activities in the area.

G. Quantity and Distribution of Employment

The proposed project would employ two full time employees to operate and maintain the proposed system. The impact to the quantity and distribution of employment in the local community would be minor.

H. Distribution of Population

The proposed operations would not disrupt the normal population distribution in the area because the facility would be located within and immediately adjacent to an existing landfill. No current population exists on the existing landfill or on the proposed development site adjacent to the landfill.

I. Demands for Government Services

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

J. Industrial and Commercial Activity

The level of industrial or commercial activity would experience a minor increase as a result of the proposed facility's intent to recover natural gas and sell it on the market.

K. Locally Adopted Environmental Plans and Goals

The Billings area is designated as an attainment area with a Limited Maintenance Plan for CO and certain industrial sources are subject to control provisions under the Billings/Laurel SO₂ control plan. The Department believes that MDU would be expected to operate in compliance with all applicable state rules and regulations as outlined in MAQP #4479-00 which are designed to be protective of air quality standards. The proposed facility is a minor source of all regulated air pollutants and would not be expected to interfere with the CO and SO₂ plans in the area.

L. Cumulative and Secondary Impacts

Overall, the revenue generated with this project would result in minor cumulative or secondary impacts that affect the economic and social environment in the immediate area. Air pollution from the facility would be controlled by Department determined BACT and conditions in MAQP #4479-00. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4479-00.

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 LFG extraction and purification facility. MAQP #4479-00 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, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Ed Warner

Date: 10/29/09