Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: March 28, 2012

Name of Applicant: Hexco, LLC

Source: Portable non-metallic crushing and screening operation

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Montana Air Quality Permit Application Number 4726-00.

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 April 12, 2012. 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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Air Resources Management Bureau
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VW:DF
Enclosures

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

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Hexco, LLC

Montana Air Quality Permit (MAQP) number: 4726-00

Preliminary Determination Issued: March 28, 2012
Department Decision Issued:
Permit Final:

1. *Legal Description of Site*: Hexco, LLC (Hexco) submitted an application to operate a portable crushing/screening plant to initially be located at Section 4, Township 26N, Range 56 E, Richland County, Montana. MAQP #4726-00 would apply while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air* quality permit would be required for locations within Missoula County, Montana. An addendum would be required for locations in or within 10 km of certain PM_{10} nonattainment areas

2. *Description of Project*: Hexco proposes the construction and operation of a portable crushing/screening operation that would consist of 2 crushing/screening plants, (Plant 1 and Plant 2) an engine/generator, and associated equipment.

3. Objectives of Project: The objective of this project would be to produce revenue for Hexco through the sale and use of scoria. The issuance of the permit would allow Hexco to operate the permitted equipment at various locations throughout Montana, including the initial site location.

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 Hexco has 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 #4726-00.

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

The scoria mine permit area would be approximately 66-acres, however the disturbances would be anticipated to be approximately 25-acres. There is a possibility that terrestrials would use the same area as the project. The application states that there are isolated woody areas that provide cover and browsing areas for deer, antelope, and bird species but, that no fish habitat would be anticipated within 1,000 feet of the main permit area. At the time of the Montana Natural Heritage Program (MNHP) site visit, cattle and cattle trails were present though no sensitive species were noted. Relatively few exotic species were noted but not specified, though it can be deduced from the species list to include some Chenopods, but no noxious weeds. Species of concern in the area include the whooping crane which is listed as endangered by the United States (U.S.) Fish & Wildlife Service and the U.S. Endangered Species Act.

The crushing and screening operation would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor and temporary effects on terrestrial and aquatic life would be expected as a result of equipment operations or from pollutant deposition.

B. Water Quality, Quantity and Distribution

According to the MNHP, the area is sub-irrigated by the waters from hardscrabble Creek. These waters carry dissolved salts that are then deposited in the meadow with continued evapotranspiration of surface water. The application states that the receiving water in the area is an ephemeral channel that drains to East Hardscrabble Creek. No point source discharge would occur as a result of the scoria mining operations and crushing operations. Rather storm water would sheet flow across the land above the ephemeral channel. Once storm water enters the ephemeral channel, it would flow via shallow concentrated flow or open-channel flow approximately 1 mile to the confluence with East Hardscrabble Creek.

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. However, water use would only cause a minor impact to the water quality, quantity, and distribution in the area, since only small amounts of water would be required to control air pollutant emissions and deposition of air pollutants (as described in Section 7.F of this EA). Therefore, the Department determined that there would be minor effects to water quality, quantity and distribution.

C. Geology and Soil Quality, Stability and Moisture

Geology in the area and the source material "scoria" is referred to by the United States Geological Survey (USGS) as Qc Clinker (Holocene and late Pleistocene) – very resistant red, pink, orange, black, and yellow metamorphosed shale, siltstone, and sandstone of Fort Union Formation and local till. Bedrock was baked by natural burning of underlying lignite. Locally, baked rock melted and fused to form buchite, a black, glassy, vesicular, or scoracious rock. Clinker is very resistant to erosion and caps hill or knolls and forms ledges on steep slopes.

Because the equipment would be operating at a facility which would be considered a minor source of emissions by industrial standards, impacts from the emissions from the crushing facility would be minor. The crushing and screening operation would have only minor impacts on soils in any proposed site location because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Therefore, any affects upon geology and soil quality, stability, and moisture at any proposed operational site would be minor

D. Vegetation Cover, Quantity, and Quality

The application states that generally, the main permit area is sparsely vegetated with creeping juniper dominating, or areas surrounded by mixed herbaceous vegetation including prairie sandreed and prairie junegrass, fescue, silver sagebrush, and purple coneflower. According to the Richland County Weed Coordinator there is some leafy spurge on site and is currently being controlled. According to the Natural Heritage Program, only one plant community, Baltic rush (Juncus balticus) is explicitly stated to occupy this area.

Because the equipment would be a minor source of emissions by industrial standards, impacts from the emissions from the crushing and screening facility would also be minor. As described in Section 7.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor.

E. Aesthetics

The mine permit area would be approximately 66-acres, however the disturbances would be anticipated to be approximately 25-acres. The application states that the landform associated with scoria generally forms a fractured rounded cap rock in the area and the site occurs on primarily ridges and rolling hills that is typical of the area. The disturbance areas would be reclaimed with a minimum of 12-inches of prepared soil/seedbed and fine-grained soils that are susceptible to compaction and will be worked as necessary to alleviate compaction. Erosion control measures would be maintained until final stabilization is achieved. Recreation in the area is limited, and mainly for hunting purposes. There are no known unique recreational opportunities found nearby. The equipment would be visible and would create additional noise while operating in these areas. Typical noise levels with gravel and crushing operations are estimated at 100 decibels (db(A)). Due to the remote location, the application states that the nearest residence and structure not associated with the crushing and screening operation is

approximately one mile east of the proposed facility, noise was not addressed by the applicant in detail. MAQP #4726-00 would include conditions to control emissions, including visible emissions, from the plant. Also, because the crushing and screening operation would be portable, would operate on an intermittent and seasonal basis, and would typically locate within an open-cut pit, any visual and noise impacts would be minor and short-lived.

F. Air Quality

The air quality impacts from the equipment would be minor because the facility is relatively small and would be used on a temporary and intermittent basis. Additionally, the small and intermittent amounts of deposition generated from the crushing/screening operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction) and would have minimal deposition on the surrounding area. MAQP #4726-00 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, MAQP #4726-00 would limit total emissions from the crushing and screening operation and any additional Hexco equipment operated at the site to 250 tons/year or less, excluding fugitive emissions. Therefore, the Department determined that compliance with all of the permit conditions would ensure that effects to the local air quality would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The proposed project would impact the unique endangered, fragile, or limited environmental resources because emissions of PM_{10}, oxides of nitrogen (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur dioxide (SO_2) would increase in the area due to the operation of the facility. The Department, in an effort to assess any potential impacts to unique, endangered, fragile, or limited environmental resources in the initial proposed area of operation, contacted the MNHP. MNHP conducted a search of the defined area which is defined by the township and range of the proposed site, with an additional one-mile buffer. Results of the search indicated that no sensitive species were noted at the time of the initial visit to collect data. Relative few exotic species were noted but not specified though it can be deduced from the species list to include some Chenopods, but no noxious weeds. Given the relatively small size of the facility and the temporary and portable nature of the operations, any impacts would be minor and short-lived. Additionally, operational conditions and limitations within MAQP #4726-00 would aid in the protection of these resources by protecting the surrounding environment. Therefore, impacts to unique, endangered, fragile, or limited environmental resources would be minor.

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

Due to the size of the facility, the crushing and screening operation would require only small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and would control particulate emissions being generated at the site. Energy requirements would also be small because the energy demands of the crushing and screening operation would be relatively small and the facility would not be used continuously. The facility would have limited production, and would have seasonal and intermittent use. In addition, impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed. The Department determined that any impacts to water, air, and energy resources in any given area would be minor due to the dispersion characteristics of the pollutants, the atmosphere, and the conditions contained in MAQP #4726-00.

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 archaeological sites that may be present in the area of operation. According to their records there are no previously recorded sites in the area of the proposed project location and there is a low likelihood of adverse disturbance to any known archaeological or historic site. Therefore, no impacts upon historical or archaeological sites would be expected as a result of this project.

J. Cumulative and Secondary Impacts

The additional equipment would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of PM and PM_{10}. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the equipment is small and the facility would be expected to operate in areas designated and used for such operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4726-00. Overall, any cumulative or secondary impacts to the physical and biological aspects of the human environment would 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 project would cause minor, if any, impacts or disruptions to native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project would take place in a relatively remote location and because the source is a minor source of emissions (by industrial standards) and would only have intermittent operations. Further, the

facility would be required to operate according to the conditions that would be placed in MAQP #4726-00. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would be minor from the proposed equipment because the site will be located on ground previously used as cattle grazing. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. The predominant use of the surrounding area would not change as a result of this project. Therefore, the Department determined that there would be minor effects to cultural uniqueness and diversity.

C. Local and State Tax Base and Tax Revenue

The crushing/screening operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a temporary source and small by industrial standards. The facility operations would employ only 3 to 5 employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be expected to be minor because the source would be portable and the money generated for taxes would be widespread. Therefore, the Department determined that there would be minor effects to local and state tax base and tax revenue.

D. Agricultural or Industrial Production

The equipment at the crushing and screening operation would have only a minor impact on local industrial production since the facility is a minor source of emissions (by industrial standards). There could be minor effects on agricultural land from the deposition of pollutants (as described in Section 7.F of this EA) but, the facility operations would be small and temporary in nature, and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation (as described in Section 7.D of this EA).

E. Human Health

MAQP #4726-00 would incorporate conditions to ensure that the crushing facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other conditions that would be established in MAQP #4726-00. Therefore, only minor impacts would be expected upon human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

The application states that there is State and Federal land in the vicinity with limited access. Recreation in the area is limited, and mainly for hunting purposes. The crushing/screening plant would be operated at a permitted open-cut pit and would have a minor impact upon the access to and quality of recreational and wilderness activities because the facility would be operating on private property and accessed through private land. Additionally, noise from the facility would be minor because the facility would typically operate within the confines of an open-cut pit. Also, the facility would be considered a small and temporary source. Thus, any changes in the quality of recreational and wilderness activities from noise, created by operating the equipment at the site, would be minor and intermittent.

G. Quantity and Distribution of Employment

The portable crushing and screening operation would be considered small and would only require a few additional employees to operate. The crushing and screening operation would be considered a portable source, with seasonal and intermittent operations and would not be expected to have any long-term affects upon the quantity and distribution of employment in any given area of operation. The application states that there are currently no employed personnel at the site and anticipates that 3 to 5 additional staff would be hired for the proposed operations. Therefore, minor effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

The application states that the nearest residence and structure not associated with the crushing and screening operation is approximately one mile east of the proposed facility. The portable crushing and screening operation would be considered small by industrial standards and would only require a few additional employees to operate. Also, no individuals would be expected to permanently relocate to a given area of operation as a result of operating the crushing facility, which would have only intermittent and seasonal operations. Therefore, the crushing facility would not disrupt the normal population distribution in the initial area of operation or any future operating site.

I. Demands for Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing/screening operates. In addition, government services would be required for acquiring the appropriate permits from government agencies. Demands for government services would be minor.

J. Industrial and Commercial Activity

The crushing/screening operations would represent only a minor increase in the industrial activity in the given area because of the small size of the operations and the portable and temporary nature of the facility. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals that would be affected by the proposed project. MAQP #4726-00 contains operational restrictions for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the proposed crushing/screening facility would be a portable source and would likely have intermittent and seasonal operations, any impacts from the project would be expected to be minor and short-lived.

L. Cumulative and Secondary Impacts

The crushing and screening operation would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate areas of operation because the source would be a portable and temporary source. Small increases in traffic would have minor effects on local traffic in the immediate area. Because the source would berelatively small, temporary source, only minor economic impacts to the local economy could be expected from the operation of the plant. The Department believes that this plant could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #4726-00.

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 a portable crushing/screening facility. MAQP #4726-00 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

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: Deanne Fischer
Date: March 9, 2012