



PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION

Date of Mailing: December 18, 2012

Name of Applicant: U.S. Minerals Inc.

Source: Slag Screening Plant

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 #4834-00.

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,

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**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:**            *U.S. Minerals, Inc.*  
                              *2105 North Winds Drive*  
                              *Dyer IN 46311*

**Montana Air Quality Permit Number:** *4834-00*

**Preliminary Determination Issued:** *12/18/2012*

**Department Decision Issued:**

**Permit Final:**

1. *Legal Description of Site:* U.S. Minerals, Inc. (USM) submitted an application to operate a copper slag screening and drying operation powered by a single diesel-fired generator. Montana Air Quality Permit (MAQP) #4834-00 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered to be tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. An addendum to this air quality permit would be required if USM intends to locate in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit application is for the operation of a screening and rotary drying operation with diesel-fired generator with total engine horsepower (hp) up to 685. The diesel-fired generator would be used to provide power to the USM equipment (i.e. screens, conveyors, elevators etc.). Particulates are controlled through the use of a baghouse and process enclosures.
3. *Objectives of Project:* The object of the project would be to produce business and revenue for the company through the sale and use of screened slag for use in the roofing granule and abrasives industries. The issuance of MAQP #4834-00 would allow USM to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because permitting USM's equipment in a de minimis fashion should facilitate 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 listing of the enforceable permit conditions and a permit analysis, including a Best Available Control Technology (BACT) analysis, is included in this permit action.
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 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.

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 operation of the slag screening and drying facility would have no impacts upon the terrestrial and aquatic life and habitats in areas where the facility may operate. Although air pollutant deposition would occur in the areas where the equipment would operate, the size and nature of the operation, dispersion characteristics of pollutants, and conditions placed in MAQP #4834-00 would result in no impacts as the site is former industrial and is within a Superfund cleanup site. Therefore, the operation of the equipment would present no impacts as no terrestrial and aquatic life is present in the area of potential operation.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the slag screening and drying facility would operate, there would only be minor impacts on water quality, quantity, and distribution because of the nature, size, operational requirements, and conditions placed in MAQP #4834-00 for the facility. Further, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor. In addition, any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the operation of the equipment would have minor impacts to water quality, quantity, and distribution in the area of operations.

C. Geology and Soil Quality, Stability, and Moisture

As a result of the operation of the slag screening and drying facility, there would be no impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because of the increased vehicle traffic and deposition of pollutants from the facility. As explained in Section 7.F. of this EA, the facility's size, operational requirements, nature of the operation being located on the existing copper slag pile, and conditions placed in MAQP #4834-00 would minimize the impacts from deposition.

D. Vegetation Cover, Quantity, and Quality

The operation of the screening and drying equipment would result in no impacts to the vegetative cover, quantity, and quality, because the proposed operation would be located on the existing copper slag pile and the area is a former industrial site and located within a Superfund cleanup site. As explained in Section 7.F. of this EA, the Department determined that, due to the nature of the operation, conditions placed in MAQP #4834-00, and dispersion characteristics of the emissions, any impacts from deposition would not be expected. In addition, because the water usage would be limited to use in particulate control (as described in Section 7.B. of this EA) and no presence of soil on the slag pile (as described in Section 7.C. of this EA), corresponding vegetative impacts from water and soil disturbance would not occur.

E. Aesthetics

The slag screening and drying facility would be visible and would create noise in the areas where it would operate. MAQP #4834-00 would include conditions to control emissions (including visible emissions) from the screening and drying equipment and the surrounding work area. The generator would be moderately sized by industrial standards and would be used to power permitted equipment operated by USM. The proposed project site is within a previous industrial area and is located within a Superfund clean-up site and therefore, any aesthetic impact would be minor.

F. Air Quality

Air quality impacts from the operation of the screening and drying facility would be minor because emissions from the screening and drying facility would be relatively small when controls are applied to the equipment. Dispersion and deposition of pollutants would occur from the operation of the screening and drying facility; however, the Department determined that any air quality impacts from the pollutants would be minor due to dispersion characteristics (from factors such as wind speed and wind direction) and conditions placed in MAQP #4834-00.

MAQP #4834-00 would include conditions limiting opacity from the screening and drying facility and would require that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, or the general work area. In addition, the permit would also limit total emissions from the screening and drying facility and any additional equipment operated at the same site to 250 tons per year or less. Further, because the screening and drying facility has less than 100 tons per year of potential emissions for any pollutant generated, the Department determined that the screening and drying facility is a minor source of emissions as defined under Title V.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify species of special concern that may be present in the proposed areas of operation, the Department contacted the Montana Natural Heritage Program (MNHP) for a review of species of special concern. Two species of concern were identified within the area where the screening and drying facility is proposed. These include Westslope Cutthroat Trout and Bull Trout. Issuance of this permit would increase emissions to the atmosphere near any location proposed for the operation of the screening and drying facility. However, as explained in Section 7.F. of this EA, because of the nature of the screening and drying facility, and conditions placed in MAQP #4834-00, any impacts to unique endangered, fragile, or limited environmental resources from the deposition of pollutants would not be expected given the location of the proposed facility on the existing copper slag pile.

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

Water would be used on particulate emissions at equipment transfer points, haul roads, access roads, parking lots, or the general plant property, as necessary, to control dust resulting from indirect use of the screening and drying facility. The generator would consume energy from diesel fuel, a non-renewable resource. Generally, the operations are seasonal and would result in small demands on environmental resources. Therefore, any impacts on the demands of the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

According to correspondence with the Montana State Historic Preservation Office (SHPO), there have been previously recorded sites in the vicinity of the proposed site location. However, given the proposed site is on the existing copper slag pile, no impact to historical or archaeological sites would occur. Therefore, it is unlikely that the project would affect any historic or archaeological site and no resulting impacts.

J. Cumulative and Secondary Impacts

The operation of the screening and drying facility would cause no effects to the physical and biological environment because the site is former industrial land and is within the site of a Superfund clean-up site. However, any operations would have to apply for and receive the appropriate permits in addition to this MAQP prior to operation. The permits would address the environmental impacts associated with the operations at the proposed site.

The screening and drying facility operations would be limited by MAQP #4834-00 to total emissions of 250 tons/year or less from non-fugitive screening and drying facility operations and any other additional equipment used at any given site.

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 of the slag screening and drying facility would not likely alter or disrupt any local lifestyles or communities (social structures and mores) in the area of operation because most of the equipment is currently in place. However, because the equipment has not operated for many years the existing social structures and mores could be affected in a minor way as a result of this permitting action.

**B. Cultural Uniqueness and Diversity**

The operation of the screening and drying equipment would have no impact on the cultural uniqueness and diversity because the equipment operations would be located at the existing site which is a former industrial area and within a Superfund cleanup site.

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

The proposed operation of the slag screening and drying facility would have a minor affect on local and state tax base and tax revenue. Up to fifteen (15) new jobs would be created as a result of issuing MAQP #4834-00, and revenue created by the operation of the slag drying and screening facility would likely benefit the local economy and continue year-round.

**D. Agricultural or Industrial Production**

No impact on agricultural or industrial production would occur as the proposed site for the screening and drying facility would be located in a former industrial area and is within a Superfund cleanup site.

E. Human Health

MAQP #4834-00 would incorporate conditions to ensure that the screening and drying facility would be operated in compliance with all applicable 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 Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in MAQP #4834-00. The air emissions from this facility would be minimized by opacity limitations on the screening and drying facility and the surrounding area of operation.

F. Access to and Quality of Recreational and Wilderness Activities

This plant be located on previously disturbed property, and in a previously used industrial area as well as within a Superfund cleanup site, and therefore does not impact access to recreational and wilderness activities.

G. Quantity and Distribution of Employment

Given the relatively small production capacity of the operation, it is not expected that the activities from the operation of the slag screening and drying facility would significantly affect the quantity and distribution of employment in any given area. Minor increases in an area's employment up to fifteen (15) employees could result as a result of issuing MAQP #4834-00.

H. Distribution of Population

Given the relatively small production capacity of the operation, it is not expected that the activities from the slag screening and drying facility would disrupt the normal population distribution of any given area. No secondary activities are identified to move to the current proposed area as a result of the current project.

I. Demands of Government Services

Government services would be required for acquiring the appropriate permits and ensuring compliance with the permits that are issued; however, the government services required would be minor.

J. Industrial and Commercial Activity

The operation of the slag screening and drying facility would represent only a minor increase in the industrial activity in any given area. No additional industrial or commercial activities are identified from the operation of the slag screening and drying facility but secondary activities could result from products produced by the facility. Therefore, industrial and commercial activity resulting from the current permit action is unknown.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals at any given site that the slag screening and drying facility may be operated at under MAQP #4834-00. The conditions identified in MAQP #4834-00 would apply to operation of the slag screening and drying facility at the proposed initial site as well as any other location in Montana as described in Section 1 of this EA.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary social and economic impacts from this project would be minor because the slag screening and drying facility is considered a small sized operation by industrial standards. New businesses could be drawn to the area and permanent jobs would be created due to the operation of the slag screening and drying facility. Because up to fifteen (15) employees would be hired due to the operation of the slag screening and drying facility, there would be minor economic impacts from new employees. In addition, any social and economic impacts that are created would be minor because of the relatively small size and nature of the operation.

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

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* Because this slag screening and drying facility is relatively small in size and must use reasonable precautions to control emissions, any impacts created would be minor impacts.

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: Craig Henrikson

Date: November 29, 2012