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

December 2, 2011

Smail Construction, Inc.
4 Smailville Lane
Alder, MT 59710

Dear Mr. Smail:

Montana Air Quality Permit #2983-02 is deemed final as of December 2, 2011, by the Department of Environmental Quality (Department). This permit is for a portable gravel crushing facility. 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 Program Supervisor
Air Resources Management Bureau
(406) 444-3490

Stephen Coe P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-5272

VW:SC
Enclosures

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

Issued to: Smail Construction Inc.
4 Smailville Lane
Alder, MT 59710

Air Quality Permit Number: 2983-02

Preliminary Determination Issued: October 28, 2011
Department Decision Issue: November 16, 2011
Permit Final: December 2, 2011

1. *Legal Description of Site*: Smail Construction Inc. (Smail) operates a portable crushing and screening plant with a home pit location in Section 9, Township 6 South, Range 4 West, Madison County, Montana. However, MAQP #2983-02 applies while operating at any location in Montana, except within those areas having a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM_{10} nonattainment areas. An addendum to this air quality permit will be required if Smail intends to locate in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County.*

2. *Description of Project:* Smail submitted an application to update MAQP 2983-02 with additional equipment as identified during a routine compliance inspection conducted by the Department. Additional equipment to include in this permit includes: one Cone Crusher, one Jaw Crusher, one three deck screen, one 227 HP Diesel Generator, and associated feed conveyors. The 1956 Cedar Rapids crushing plant containing a crusher, two screens a feed conveyor and a 100 hp diesel generator have been replaced with the previously mentioned equipment and are no longer on site.

3. *Objectives of the Project:* Smail submitted a complete permit application for a crushing and screening operation. The proposed new equipment is replaces previously permitted equipment.

4. *Additional Project Site Information:* In many cases, the crushing and screening plant may move to a general site location, or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA for the site would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.

5. *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 Smail 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 list of enforceable conditions, including a BACT analysis, would be contained in MAQP #2983-02.

7. *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 would be reasonably necessary to ensure compliance with applicable requirements and 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

Terrestrials would use the same area as the crushing and screening operations. Impacts on terrestrials and aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor, as the crushing and screening operations would be considered a minor source of emissions and would have intermittent and seasonal operations. Furthermore, the air emissions would have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of operation (See Section 8.F). Also, the nearest water body the Ruby River is approximately 1,500 meters from the proposed operation. At such distances, only minor and temporary effects to terrestrial and aquatic life would be expected from the proposed crushing and screening operation because only minor amounts of pollutants would reach the water body. Therefore, due the minor amount of emissions generated and the dispersion of pollutant emissions, only minor and temporary effects and aquatic life and habitat would be expected from the proposed crushing and screening operation.

B. Water Quality, Quantity, and Distribution

Water would be required 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 surface disturbance to this proposed operational site, since only minor amounts of water would be required to be used for pollution control. Therefore, at most, only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required and deposition of air pollutants upon surrounding water bodies would be minor (See Section 8.F).

C. Geology and Soil Quality, Stability, and Moisture

The crushing and screening operations would only have minor impacts on geology and soil quality, stability, and moisture because the crushing and screening facility would generally locate within a previously disturbed open-cut pit. The deposition of air pollutants on soils would be minor (See Section 8.F) because operations would be seasonal and intermittent, relatively small amounts of pollution would be generated, and air pollutant dispersion would greatly minimize the impacts from the pollution on the surrounding soils. Facility construction, aggregate mining, and traffic operating within the site may cause soil compaction that could impact water infiltration and surface water runoff at the site. However, such impacts would be minor and would only have minor effects upon soils (geology and soil quality, stability, and moisture) and water resources (water quality, quantity, and distribution) at the site.

D. Vegetation Cover, Quantity, and Quality

Minor, if any impacts would occur on vegetative cover, quality, and quantity because the facility would operate at a site where vegetation has been previously removed/disturbed. The facility would be a relatively minor source of emissions and the pollutants would be greatly dispersed (See Section 8.F); therefore, deposition on vegetation from the proposed project would be minor. Also, because the water usage would be minimal (See Section 8.B) and the associated soil disturbance from the application of water and any runoff would be minimal (See Section 8.C), corresponding vegetative impacts would be minor.

E. Aesthetics

The crushing and screening operation would be visible and would create additional noise while operating in the initial proposed site location. However, MAQP #2983-02 would include conditions limiting the opacity of the plant, as well as conditions requiring water spray bars and/or other means to control air pollution. Also, because the crushing and screening operation would be portable, would operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived.

F. Air Quality

The air quality impacts from the proposed project would be minor because the facility would be relatively small, would operate on an intermittent and temporary basis, and would locate in a previously disturbed site. However, MAQP #2983-02 would include conditions limiting the facility's opacity and the crushing and screening production from the plant, as well as conditions requiring water spray bars to control air pollution. In addition, water spray would be required to control emissions from haul roads, access roads, parking lots, and the general work area. MAQP #2983-02 would also limit total emissions from the crushing and screening facility and any additional Smail equipment operated at the site to 250 tons/year or less, excluding fugitive emissions.

Further, the Department determined that the crushing and screening facility would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's PTE is below the major source threshold level of 100 tons per year for any regulated pollutant.

Pollutant deposition from the facility would be minimal and the pollutants emitted from the facility would be widely dispersed (from factors such as wind speed and wind direction). Also, because of the lack of vegetative cover at the site and the relatively flat topography of the site, pollutant deposition upon any given area would also be minimal. Therefore, good ventilation of pollutant emissions would only have minor effects upon surrounding soils, vegetation, water resources, human populations, and terrestrial and aquatic life. Air quality impacts from operating the crushing and screening equipment in this area would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operations, contacted the Montana Natural Heritage Program (MNHP) to identify any species of concern associated with the home pit location (Section 9, Township 6 South, Range 4 West, Madison County, Montana). Search results concluded there are 4 species of special concern within the defined area. Species of concern include the Great Blue Heron, the Bobolink, the Hoary Bat, and the Western Spotted Skunk.

The Great Blue Heron has a listed state conservation status of S3, signifying a state-level rank of vulnerable. The global conservation status is G5, signifying a global-level rank of secure. Secure is defined by NatureServe.org as common; widespread and abundant. The Great Blue Heron is found primarily in urban or wilderness wetland settings along major rivers and lakes, especially during breeding season. Nesting trees are typically cottonwoods along major rivers and lakes. No management activities specific to Great Blue Heron are currently occurring in Montana, although annual colony counts have been conducted for the past several years as a follow-up assessment to an earlier state-wide survey

The Bobolink has a listed state conservation status of S3, signifying a state-level rank of vulnerable. The global conservation status is G5, signifying a global-level rank of secure. Secure is defined by NatureServe.org as common; widespread and abundant. The Bobolink Nests in tall grass and mixed-grass prairie and prefers "old" hay fields with high grass-to-legume ratios.

The Hoary Bat has a listed state conservation status of S3, signifying a state-level rank of vulnerable. The global conservation status is G5, signifying a global-level rank of secure. Secure is defined by NatureServe.org as common; widespread and abundant. The Hoary Bat is migratory and only a summer resident in Montana, with records from early June through September. Normal arrival and departure dates are uncertain. During the summer, Hoary Bats occupy forested areas.

The Western Spotted Skunk has a listed state conservation status of S3 east of the continental divide, signifying a state-level rank of vulnerable. The global conservation status is G5, signifying a global-level rank of secure. Secure is defined by NatureServe.org as common; widespread and abundant. The habitat of the Western Spotted Skunk in Montana is not well known, but they have been found in arid, rocky and brushy canyons and hillsides. Information from other portions of its range suggest that when they are inactive or bearing young they occupy a den in rocks, burrows, hollow logs, brush piles, or under buildings.

The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. Based on the small size and temporary nature of the equipment operations, the fact that the facility operations would take place in a previously mined area, and

the minimal disturbance expected to the environment (water, air, and soils), the Department determined minimal impacts to any unique endangered, fragile, or limited environmental resources would occur.

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

Due to the relatively small size of the facility, the crushing and screening operation would only require small quantities of water, air, and energy for proper operation. Only small quantities of water would be required for dust suppression. In addition, impacts to air resources would be minor because the source a minor industrial source of pollutant emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed (See Section 8.F). Energy requirements would also be small, as the facility would be powered by a small industrial diesel generator that would use minor amounts of fuel. Overall, any impacts to water, air, and 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 a few previously recorded sites within the area proposed for initial operations. Additionally, there have been a few previously conducted cultural resource inventory done in the area. According to correspondence from SHPO, there is a low likelihood 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.

J. Cumulative and Secondary Impacts

The crushing and screening operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the new equipment would generate emissions of particulate matter (PM), and $PM_{10.}$ Noise generated from the site would cause minimal impacts because the crushing and screening operation would be seasonal and temporary. Crushing and screening operations typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, there is a low likelihood that assembly and operation of the plant in any of these locations would cause significant additional impacts. Given the expected temporary and portable nature of actual operations, any impacts would be expected to be short-lived, although this assessment is completed with an understanding that no permit condition limits the length of stay at an initial location. Operational conditions and limitations in the permit would be protective of resources by limiting overall impacts to the surrounding environment. Additionally, this facility, in combination with other Smail emissions from equipment operations at the site would not be permitted to exceed 250 tons per year of non-fugitive emissions. However, there are no other sources expected to operate as a result of permitting this equipment.

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	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 Department has prepared the following comments:

A. Social Structures and Mores

The crushing and screening operation would not cause disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions, would be operating at an area currently designated and used for aggregate mining, would be separated from the general population, and would only have temporary and intermittent operations. Further, the facility would be a minor source of air pollution and would be required to operate according to the conditions that would be placed in MAQP #2983-02.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed crushing and screening operation because the proposed site has already been used for the crushing and screening of aggregate, is a bermed pit, and the facility would be a portable source, with seasonal and intermittent operations. Therefore, the predominant use of the surrounding area would not change as a result of this project and the cultural uniqueness and diversity of the area would not be affected.

C. Local and State Tax Base and Tax Revenue

The crushing and screening operation would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source (minor source) and would operate seasonally and intermittently. The facility would require the use of a few existing employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees or from facility production. Furthermore, the impact to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would potentially be widespread.

D. Agricultural or Industrial Production

The facility would locate in an existing permitted open-cut pit, adjacent to an area that could be used for animal grazing and agricultural production. Minimal deposition of air pollutants would occur on the surrounding land (as further explained in Section 8.F of this EA), thus, only minor effects on the surrounding vegetation and agricultural production would occur. Further, the crushing and screening operations would have only a minor impact on local industrial production since the facility would be a minor source of aggregate production and air emissions. Also, the facility operations would be small and temporary in nature and would be permitted with operational conditions and limitations that would further minimize impacts upon surrounding vegetation, as described in Section 8.D of this EA. Therefore, impacts from the crushing and screening operations upon agricultural and industrial production would be minor.

E. Human Health

MAQP #2983-02 would incorporate conditions to ensure that the crushing and screening facility 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. As described in Section 8.F of this EA, the air emissions from this facility would be minimized by the use of water spray and other process limits that would be required by MAQP #2983-02. Also, the facility would be operating on a temporary and intermittent basis and pollutants from the ventilation of emissions at this site (see Section 8.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed crushing and screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

The crushing and screening plant would be operated adjacent to an existing roadway. The facility would also operate within the confines of an existing open-cut pit. Therefore, no impacts upon access to recreational and wilderness activities would result. However, minor effects on the quality of recreational and wilderness activities would occur. Associated effects from noise or facility emissions would occur, but would be minor because the facility would operate within the confines of an existing open-cut pit, would operate near a transportation route, would operate in an industrial area where little recreational opportunity exists, and would operate on a seasonal and intermittent basis. Therefore, any changes in the quality of recreational and wilderness activities, created by noise generated by operating the equipment at the site, would be minor and intermittent.

G. Quantity and Distribution of Employment

The portable crushing and screening operation is relatively small in size, would have seasonal and intermittent operation, and would require only a few employees to operate. No individuals would be expected to permanently relocate to this area of operation as a result of operating the crushing and screening facility. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

The portable crushing and screening operation is small and would only require a few existing employees to operate. No individuals would be expected to permanently relocate to the area of operation as a result of operating the crushing and screening facility. Therefore, the crushing and screening facility would not disrupt the normal population distribution.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing and screening operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be minor, due to the relatively small size and seasonal nature of the crushing and screening facility.

J. Industrial and Commercial Activity

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

K. Locally Adopted Environmental Plans and Goals

Smail would be allowed, by MAQP #2983-02, to operate in areas designated by the Environmental Protection Agency (EPA) as attainment or unclassified. The permitted production limits and opacity limits would be protective of air quality while the facility is operating at these permitted locations. Because the facility would be a small and portable source and would have intermittent and seasonal operations, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The crushing and screening operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area because the source is a portable, temporary source. Further, no other industrial operations are expected to result from the permitting of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Smail, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative effects would result to the local economy.

Recommendation: An 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 minor; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: 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: Department of Environmental Quality (Air Resources Management Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

Analysis Prepared By: Stephen Coe P.E.
Date: October 28, 2011