

AIR QUALITY PERMIT

Issued To: Schellinger Construction Co., Inc.
P.O. Box 39
Columbia Falls, MT 59912

Permit #2623-20
Administrative Amendment (AA)
Request Received: 01/29/07
Department Decision on AA Issued: 02/02/07
Permit Final: 02/21/07
AFS Number: 777-2623

An air quality permit, with conditions, is hereby granted to Schellinger Construction Co., Inc. (Schellinger), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Location

Schellinger operates a portable crushing/screening plant at various locations throughout Montana. Permit #2623-20 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, those areas considered Tribal Lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Addendum 20 applies to the Schellinger facility while operating at any location in or within 10 km of certain PM₁₀ nonattainment areas. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On September 21, 2006, Schellinger was issued final Permit #2623-19. On January 29, 2007, an administrative error was brought to the attention of the Department. In Section III.B.8 of Addendum 20, the diesel generator is allowed to operate 16 hours per day during summer month operations. The condition should state that the diesel generator is allowed no more than 13 hours per day of operation to keep nitrous oxide (NO_x) levels below the Title V threshold. The calculations in the emissions inventory were based on 13 hours of operation per day. The Department changed the condition, as appropriate.

Section II: Limitations and Conditions

A. Operational

1. All visible emissions from any Standards of Performance for New Stationary Sources (NSPS) affected crushers may not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).
2. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other NSPS affected equipment used in conjunction with this facility, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

3. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other associated equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
4. Schellinger shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
5. Schellinger shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.752).
6. Water shall be available and used, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
7. Schellinger shall not operate more than four crushers at any given time and the cumulative maximum rated design capacity of the four crushers shall not exceed 1,400 tons per hour (TPH) (ARM 17.8.749).
8. Total combined crusher production from the facility shall be limited to 12,264,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Schellinger shall not operate more than three screens at any given time and the cumulative maximum rated design capacity of the three screens shall not exceed 800 TPH (ARM 17.8.749).
10. Total combined screen production from the facility shall be limited to 7,008,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. Schellinger shall not operate more than one diesel generator at any given time, and the maximum rated design capacity shall not exceed 1000-kW and shall not exceed 4,800 hours during any rolling 12-month time period (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Schellinger, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
13. Schellinger shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO), as applicable.

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be

made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).

2. Schellinger shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by Schellinger as a permanent business record for at least 5 years following the date of the measurement, shall be available at the plant site for inspection by the Department, and shall be submitted to the Department upon request (ARM 17.8.749).
3. Schellinger shall supply the Department with annual production information for all emission points, as required by the Department in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in units, as required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. Schellinger shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation, or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
5. Schellinger shall document, by month, the total crushing production for the facility. By the 25th day of each month, Schellinger shall total the crushing production for the facility during the previous 12 months to verify compliance with the limitation in Section II.A.8. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Schellinger shall document, by month, the total screening production for the facility. By the 25th day of each month, Schellinger shall total the screening production for the facility during the previous 12 months to verify compliance with the limitation in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. Schellinger shall document, by month, the hours of operation of the 1000 kW diesel generator. By the 25th day of each month, Schellinger shall total the hours of operation of the generator during the previous 12 months to verify compliance with the limitation in Section II.A.11. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
8. Schellinger shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emissions inventory information (ARM 17.8.1204).

Section III: General Conditions

- A. Inspection - Schellinger shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Schellinger fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Schellinger of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement, as specified in Section 75-2-401 *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board).
A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If the Board does not issue a stay, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay of an annual operation fee by Schellinger may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked.
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Schellinger shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department approved permitting program.

PERMIT ANALYSIS
Schellinger Construction Company, Inc.
Permit Number 2623-20

I. Introduction/Process Description

A. Permitted Equipment

Schellinger Construction Company, Inc. (Schellinger), operates a portable crushing/screening facility consisting of four crushers (up to 1400 tons per hour (TPH) combined capacity), three 3-deck screens (up to 800 TPH combined capacity), a diesel generator (up to 1000 kilowatts (kW)), and associated equipment. Permit #2623-20 applies to the source while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Addendum 20 applies to the Schellinger facility while operating at any location in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas.

B. Process Description

Schellinger uses the crushing/screening plant to crush and sort sand and gravel. For a typical operational setup, the raw materials are loaded into a hopper and conveyed to the crushing/screening plant. Materials are crushed by the crushers, screened and sorted by the screens, and conveyed to stockpile for sale and use, generally for construction operations.

C. Permit History

On March 20, 1990, **Permit #2623-00** was issued to Schellinger to operate a 1976 Pioneer 50 VE portable duplex gravel crusher and associated equipment.

On May 12, 1993, **Permit #2623-01**, with **Addendum 1**, was issued to Schellinger because the crushing plant moved to within approximately 2 kilometers of the Kalispell particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. Addendum 1 expired on September 30, 1993.

On March 17, 1994, **Permit #2623-02**, with **Addendum 2**, was issued to Schellinger to allow year round operation of the crushing plant in Sections 4, 5, and 9 of Township 27 North, Range 21 West, Flathead County, Montana. This location was approximately 1.5 kilometers from the Kalispell PM₁₀ nonattainment area.

On April 13, 1994, **Permit #2623-03**, with **Addendum 3**, was issued to Schellinger to allow the crushing plant to operate at the NW¹/₄ of the NW¹/₄ of Section 31, Township 29 North, Range 21 West (NUPAC Pit) and at the NW¹/₄ of the NW¹/₄ of Section 22, Township 29 North, Range 21 West (A-1 Paving's Pit) in Flathead County, Montana, during the winter months (October 1 through March 31). The NUPAC Pit is approximately 6.0 kilometers from the Kalispell PM₁₀ nonattainment area and A-1 Paving's Pit is approximately 2.25 kilometers from the Kalispell PM₁₀ nonattainment area. Addendum 3 expired on September 30, 1995.

On August 7, 1995, Schellinger requested that Permit #2623-03 be modified to allow the crushing plant to continue operation within 10 kilometers of the Kalispell PM₁₀ nonattainment area, during the winter months (October 1 through March 31). Modeling was originally completed for Permit #2623-03 to show that Schellinger would be able to operate at A-1 Paving's pit and the NUPAC

pit without adversely impacting the Kalispell PM₁₀ nonattainment area. The conditions and reporting requirements stated in Addendum 3 of Permit #2623-03 were reviewed and the Department determined the conditions and reporting requirements were still acceptable and would be re-issued in **Permit #2623-04** and **Addendum 4**.

On February 22, 1996, Schellinger requested that Permit #2623-04 be modified to allow the crushing plant to operate at two locations: the NE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 14, Township 21 North, Range 29 West, in Sanders County and the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 23, Township 30 North, Range 21 West, in Flathead County. These locations are within 10 kilometers of the Thompson Falls, Columbia Falls, and Kalispell PM₁₀ nonattainment areas. Schellinger requested to operate at these locations during the summer and winter months (January 1 through December 31). The Department determined that the conditions contained in Permit #2623-04 must be modified, per General Condition I of Permit #2623-04, and controls implemented to limit the impacts of the portable crusher's emissions on the nonattainment areas. The new conditions and reporting requirements were stated in **Addendum 5** of **Permit #2623-05**.

On May 18, 1996, **Permit #2623-06** was issued to Schellinger to allow the facility to operate at any location within 10 kilometers of certain PM₁₀ nonattainment area during the summer months (April 1 through September 30). **Addendum 6** of Permit #2623-06 expired September 30, 1996.

On September 28, 1996, **Permit #2623-07** was issued to Schellinger Construction to allow the operation of their facility at two locations within the Kalispell PM₁₀ nonattainment area during the winter months (October 1 through March 31) and within 10 kilometers of certain PM₁₀ nonattainment area during the summer months (April 1 through September 30). The winter locations were at the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 31, Township 29 North, Range 21 West (NUPAC Pit) and at the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 22, Township 29 North, Range 21 West (A-1 Paving Pit). The new conditions and reporting requirements were stated in **Addendum 7** of Permit #2623-07.

On September 22, 1997, Schellinger requested that Permit #2623-07 be modified to allow the permitted facility to operate in the NUPAC Pit, A-1 Paving Pit, and the Carlson Pit (the North $\frac{1}{2}$ of Section 21, Township 30 North, Range 21 West, in Flathead County, Montana) through the summer and winter months. The Department determined that this facility would not cause or contribute to a violation of any ambient air quality standards by conducting a SCREEN3 VIEW Model. The conditions and reporting requirements for operation at these, and other locations within 10 kilometers of certain PM₁₀ nonattainment areas, are stated in **Addendum 8** to **Permit #2623-08**.

On November 12, 1997, Schellinger requested a modification of Permit #2623-08 to allow the facility to operate at an additional location within 10 kilometers of the Kalispell PM₁₀ nonattainment area through September 30, 1998, and in or within certain PM₁₀ nonattainment area from April 1, 1998, to September 30, 1998. The additional wintertime location is at the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 23, Township 30 North, Range 21 West (A-1 Paving Hodgson Road Pit), Flathead County. **Permit #2623-09** and **Addendum 9** replaced Permit #2623-08 and Addendum 8.

On December 17, 1997, Schellinger requested a modification of Permit #2623-09 to combine Permits #2623-08 and #2623-09 to allow the facility to operate at four separate locations within 10 kilometers of the Kalispell PM₁₀ nonattainment area through September 30, 1998, and in or within 10 kilometers of certain PM₁₀ nonattainment areas from April 1, 1998, to September 30, 1998. The wintertime locations are: the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 23, Township 30 North, Range 21 West (A-1 Paving Hodgson Road Pit); the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 31, Township 29 North, Range 21 West (NUPAC Pit); the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 22, Township 29

North, Range

21 West (A-1 Paving Pit); and the North ½ of Section 21, Township 30 North, Range 21 West (Carlson Pit), Flathead County. **Permit #2623-10** combined Permit #2623-09 and Permit #2623-08 and **Addendum 10** replaced Addendum 9.

On December 19, 1998, Schellinger was issued **Permit #2623-11** and **Addendum 11** to allow the facility to operate at seven different locations in or within 10 kilometers of the Kalispell PM₁₀ nonattainment area during the winter months. In addition, Permit #2623-11 allowed operation in or within 10 kilometers of the following PM₁₀ nonattainment areas from April 1, 1999, to September 30, 1999: Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, Missoula, and Butte.

On November 4, 1999, Schellinger requested a modification of Permit #2623-11 to allow the facility to operate at seven different locations in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas during the winter months (October 1, 1999, through March 31, 2000).

Additional restrictions were placed in **Addendum 12** to be protective of the air quality in and within 10 kilometers of the Kalispell PM₁₀ nonattainment area. SCREEN3 VIEW air dispersion modeling was conducted for the proposed operation in order to determine a production limit that would be protective of the nonattainment area. Only one SCREEN3 VIEW model was run to account for the seven proposed winter months operating locations. However, worst case modeling results were used to determine a production limit that would be protective of existing air quality in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas, regardless of the chosen operating site location. **Permit #2623-12** replaced Permit #2623-11 and Addendum 12 replaced Addendum 11.

On August 2, 2000, Schellinger requested a renewal of the addendum in Permit #2623-12 to allow the facility to continue operation at seven different locations in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas during the winter months (October 1 through March 31).

The addendum contained restrictions to protect the air quality in and within 10 kilometers of the Kalispell, Whitefish, and Columbia Falls PM₁₀ nonattainment areas. SCREEN3 VIEW air dispersion modeling was conducted for Permit #2623-12 to determine a production limit that would protect the nonattainment areas. One SCREEN3 VIEW model was run to account for the seven winter-month operating locations. However, worst case modeling results were used to determine a production limit that would protect existing air quality in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas, regardless of the chosen operating site location. Based on Schellinger's request, the Department determined that the modeling performed for Permit #2623-11 was still valid. The decisions in this permit were based on that modeling. For additional operational flexibility, the Department added language that allowed operation at any location within 10 kilometers of certain PM₁₀ nonattainment areas during the summer months. This same language was used in Permit #2623-11. **Permit #2623-13** replaced Permit #2623-12 and **Addendum 13** replaced Addendum 12.

On May 8, 2002, Schellinger was issued a permit to replace a portable 1976 Pioneer 50 VE duplex gravel crusher with a portable 1997 Nordberg cone crusher, a 1995 El-Jay cone crusher, a 1985 EL-Jay cone crusher, a 1967 Cedar Rapids jaw crusher, a 1979 Pioneer 3-deck screen, a 1990 diesel generator (1000 kW), and associated equipment. Additionally, Schellinger requested to renew their addendum to operate at seven different locations in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas during the winter months and in or within 10 kilometers of certain PM₁₀ nonattainment areas during the summer months.

SCREEN3 VIEW air dispersion modeling was conducted for **Permit #2623-14** to determine a production limit that would be protective of the nonattainment areas. Worst case modeling results were used to determine a production limit that would be protective of the existing air quality in the winter locations, regardless of the chosen operating site location. Permit #2623-14 replaced Permit #2623-13 and **Addendum 14** replaced Addendum 13.

On August 9, 2002, Schellinger was issued a permit to add a 1995 EL-Jay 3-deck screen and a 1967 Cedarapids 3-deck screen to the list of permitted equipment. Additionally, Schellinger requested to update their addendum, to incorporate their new equipment, and again be allowed to operate at seven different locations in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas during the winter months and in or within 10 kilometers of certain PM₁₀ nonattainment areas during the summer months. SCREEN3 VIEW air dispersion modeling was conducted for **Permit #2623-15** to determine a production limit that would be protective of the nonattainment areas. Worst-case modeling results were used to determine a production limit that would protect existing air quality in or within 10 kilometers of the PM₁₀ nonattainment areas. The decisions in the updated addendum are based on that modeling. Permit #2623-15 replaced Permit #2623-14 and **Addendum 15** replaced Addendum 14.

On April 15, 2003, Schellinger submitted a complete permit application to remove the 1967 Cedarapids jaw crusher and associated 3-deck screen from the list of permitted equipment. Additionally, Schellinger's addendum was updated to reflect the permitted equipment. Schellinger was allowed to operate at eight different locations in or within 10 kilometers of the Kalispell, Columbia Falls, and Whitefish PM₁₀ nonattainment areas during the winter months and in or within 10 kilometers of certain PM₁₀ nonattainment areas during the summer months. SCREEN3 VIEW air dispersion modeling was conducted for **Permit #2623-16** to determine a production limit that would be protective of the nonattainment areas. Permit #2623-16 replaced Permit #2623-15 and **Addendum 16** replaced Addendum 15.

On August 27, 2003, Schellinger submitted an Administrative Amendment request to remove the 1979 Pioneer 3-deck screen plant (maximum capacity 400 TPH) from the list of permitted equipment. This permit action would not result in an increase in emissions for the facility, because the facility would be required to keep their production below the production limits previously established. Additionally, the addendum was also updated to reflect the current equipment for the facility. Also, the permit was updated to reflect the current permit language and rule references used by the Department. **Permit #2623-17** replaced Permit #2623-16 and **Addendum 17** replaced Addendum 16.

On March 25, 2004, Schellinger submitted a complete permit application to remove the 1985 EL-Jay cone crusher (100 TPH) and add two 2003 Nordberg cone crushers (maximum capacity up to 300 TPH each) with two Cedar Rapids (6'x20') 3-deck screens (maximum capacity up to 300 TPH each), and associated equipment. Additionally, the addendum was updated to reflect the current equipment for the facility, the current permit language, and rule references used by the Department. **Permit #2623-18** replaced Permit #2623-17 and **Addendum 18** replaced Addendum 17.

On June 22, 2006, Schellinger submitted a request to update Permit #2623-18 to reflect the current emission factors and Department guidelines which would allow increased production limits in the permit and the addendum. Schellinger also requested to list two additional sites in the addendum for the winter season. **Permit #2623-19** replaced Permit #2623-18 and **Addendum 19** replaced Addendum 18.

D. Current Permit Action

On September 21, 2006, Schellinger was issued final Permit #2623-19. On January 29, 2007, an administrative error was brought to the attention of the Department. In Section III.B.8 of Addendum 20, the diesel generator is allowed to operate 16 hours per day during summer month operations. The condition should state that the diesel generator is allowed no more than 13 hours per day of operation to keep nitrous oxide (NO_x) levels below the Title V threshold. The calculations in the emissions inventory were based on 13 hours of operation per day. The Department changed the condition, as appropriate. **Permit #2623-20** will replace Permit #2623-19 and **Addendum 20** will replace Addendum 19.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the permit analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Schellinger shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Schellinger must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne Particulate Matter (PM). (2) Under this rule, Schellinger shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.

In order for a crushing/screening plant to be subject to NSPS requirements, two specific criteria must be met. First, the crushing/screening plant must meet the definition of an affected facility and, second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Schellinger, the crushing/screening equipment to be used with Permit #2623-20 is considered an NSPS-affected facility under 40 CFR Part 60, Subpart A General Provisions, and Subpart OOO Non-Metallic Mineral Processing Plants.

D. ARM 17.8, Subchapter 5, Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. Schellinger shall submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Schellinger was not required to submit a permit application fee for the current permit action because it is considered an administrative action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7, Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, modify, or use any asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Schellinger has a PTE greater than 15 tons per year of total PM, particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀), oxides of nitrogen (NO_x), and carbon monoxide (CO); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Schellinger was not required to submit a permit application for the current permit action because it is considered an administrative action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Schellinger was not required to submit a public notice for the current permit action because it is considered an administrative action.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section IV of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Schellinger of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board), or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond those found in its permit, unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the

names of the transferor and the transferee, is sent to the Department.

- F. ARM 17.8, Subchapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not listed source and the facility's PTE is less than 250 tons per year (excluding fugitive emissions) of any air pollutant.

- G. ARM 17.8, Subchapter 12, Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant.
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule.
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.
 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2623-20 for Schellinger, the following conclusions were made:
 - a. The facility's PTE is less than 100 tons/year for all criteria pollutants.
 - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NESHAP standards.
 - e. This facility is an NSPS-affected source (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants).
 - f. This source is not a Title IV affected source nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on the above conclusions, the Department has determined that Schellinger will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Schellinger will be required to obtain an Operating Permit.

- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations, which limit that source's PTE.
- i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
- ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

The Department has determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

III. BACT Analysis

A BACT determination is required for each new or altered source. Schellinger shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. Schellinger was not required to submit a BACT analysis for the current permit action because it is considered an administrative action.

IV. Emission Inventory

Source	Tons/Year					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Four crushers (up to 1400 TPH)	7.36	3.31				
Three screens (up to 800 TPH)	7.71	2.58				
Material Transfer	3.68	1.23				
Pile Forming	28.03	13				
Bulk Loading	0.70	0.70				
Diesel Generator (up to 1000 KW)	2.25	2.25	99.77	2.28	17.71	26.04
Haul Roads	12.68	3.60				
Total	60.76	26.82	99.77	2.28	17.71	26.04

- A limitation of 4800 annual hours of operation per rolling 12-month time period was placed on the diesel engine/generator in order to keep the facility from being a major source.

Up to 4 Crushers (up to 1400 tons/hour total maximum capacity)

Maximum Process Rate: 1400 ton/hr
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0012 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.0012 lbs/ton * 1400 ton/hr = 1.68 lb/hr
 Daily Calculations: 1.68 lb/hr * 24 hrs/day = 40.32 lbs/day
 Annual Calculations: 1.68 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 7.36 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.00054 lbs/ton * 1400 ton/hr = 0.756 lb/hr
 Daily Calculations: 0.756 lb/hr * 24 hrs/day = 18.14 lbs/day
 Annual Calculations: 0.756 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.31 ton/yr

Up to 2 Screens (up to 800 tons/hour total maximum capacity)

Process Rate: 800 ton/hr
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0022 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.0022 lbs/ton * 800 ton/hr = 1.76 lb/hr
 Daily Calculations: 1.76 lb/hr * 24 hrs/day = 42.24 lbs/day
 Annual Calculations: 1.76 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 7.71 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.00074 lbs/ton * 800 ton/hr = 0.59 lb/hr
 Daily Calculations: 0.59 lb/hr * 24 hrs/day = 14.16 lbs/day
 Annual Calculations: 0.59 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.58 ton/yr

Diesel Generator

Generator Size = up to 1000 kW
 1kW = 1.341 hp
 1000 kW * 1.341 = 1341 hp

Hours of operation: 4800 hr/yr -- or -- 13 hr/day

PM Emissions

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.0007 lb/hp-hr = 0.94 lb/hr
 Daily Calculations: 1341 hp * 0.0007 lb/hp-hr * 13 hrs/day = 12.20 lbs/day
 Annual Calculation: 1341 hp * 0.0007 * 4800 hr/yr * 0.0005 lb/ton = 2.34 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.0007 lb/hp-hr = 0.94 lb/hr
 Daily Calculations: 1341 hp * 0.0007 lb/hp-hr * 13 hrs/day = 12.20 lbs/day
 Annual Calculation: 1341 hp * 0.0007 * 4800 hr/yr * 0.0005 lbs/ton = 2.34 ton/yr

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.031 lb/hp-hr = 41.57 lb/hr
 Daily Calculations: 1341 hp * 0.031 lb/hp-hr * 13 hrs/day = 540.42 lbs/day
 Annual Calculation: 1341 hp * 0.031 * 4800hr/yr * 0.0005 lbs/ton = 99.77 ton/yr

VOC Emissions:

Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.00071 lb/hp-hr = 0.95 lb/hr
 Daily Calculations: 1341 hp * 0.00071 lb/hp-hr * 13 hrs/day = 12.38 lbs/day
 Annual Calculation: 1341 hp * 0.00071 * 4800 hr/yr * 0.0005 lbs/ton = 2.28 ton/yr

CO Emissions:

Emission Factor: 0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.0055 lb/hp-hr = 7.38 lb/hr
 Daily Calculations: 1341 hp * 0.0055 lb/hp-hr * 13 hrs/day = 95.88 lbs/day
 Annual Calculation: 1341 hp * 0.0055 * 4800hr/yr * 0.0005 lbs/ton = 17.71 ton/yr

SOx Emissions:

Emission Factor: 0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 1341 hp * 0.00809 lb/hp-hr = 10.85 lb/hr
 Daily Calculations: 1341 hp * 0.00809 lb/hp-hr * 13 hrs/day = 141.03 lbs/day
 Annual Calculation: 1341 hp * 0.00809 * 4800 hr/yr * 0.0005 lbs/ton = 26.04 ton/yr

Material Transfer

Process Rate: 400 ton/hr
 Number of Transfers: 15 transfers

Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.00014 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: $0.00014 \text{ lbs/ton} * 400 \text{ ton/hr} * 15 = 0.84 \text{ lb/hr}$
Daily Calculations: $0.84 \text{ lb/hr} * 24 \text{ hrs/day} = 20.16 \text{ lbs/day}$
Annual Calculations: $0.84 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.68 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor: 0.000046 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: $0.000046 \text{ lbs/ton} * 400 \text{ ton/hr} = 0.28 \text{ lb/hr}$
Daily Calculations: $0.28 \text{ lb/hr} * 24 \text{ hr/day} = 6.62 \text{ lb/day}$
Annual Calculations: $0.28 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.23 \text{ ton/yr}$

Pile Forming

Process Rate: 400 ton/hr
Number of Piles: 5 piles
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0032 lbs/ton (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: $0.0032 \text{ lbs/ton} * 400 \text{ ton/hr} * 5 \text{ piles} = 6.40 \text{ lb/hr}$
Daily Calculations: $6.40 \text{ lb/hr} * 24 \text{ hrs/day} = 153.60 \text{ lbs/day}$
Annual Calculations: $6.40 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 28.03 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor: 0.0015 lbs/ton (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: $0.0015 \text{ lbs/ton} * 400 \text{ ton/hr} * 5 \text{ piles} = 3.0 \text{ lb/hr}$
Daily Calculations: $3.0 \text{ lb/hr} * 24 \text{ hrs/day} = 72.0 \text{ lbs/day}$
Annual Calculations: $3.0 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 13 \text{ ton/yr}$

Bulk Loading

Process Rate: 400 ton/hr
Number of Loads: 4 load
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0001 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: $0.0001 \text{ lbs/ton} * 400 \text{ ton/hr} = 0.16 \text{ lb/hr}$
Daily Calculations: $0.16 \text{ lb/hr} * 24 \text{ hrs/day} = 3.84 \text{ lbs/day}$
Annual Calculations: $0.16 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.70 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor: 0.0001 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: $0.0001 \text{ lbs/ton} * 400 \text{ ton/hr} = 0.16 \text{ lb/hr}$
Daily Calculations: $0.16 \text{ lb/hr} * 24 \text{ hrs/day} = 3.84 \text{ lbs/day}$
Annual Calculations: $0.16 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.70 \text{ ton/yr}$

Haul Roads

Vehicle miles traveled: 5 VMT/day {Estimated}
Assumption: Rated Load Capacity < 50 tons
Hours of Operation: 8760 hr/yr
24 hr/day
365 day/yr

PM Emissions:

Emission Factor: 13.90 lb/VMT
Calculations: $5.0 \text{ VMT/day} * 13.90 \text{ lb/VMT} = 69.50 \text{ lbs/day}$
 $69.50 \text{ lbs/day} * 365 \text{ day/yr} * 0.0005 \text{ ton/lb} = 12.68 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor: 3.95 lb/VMT
Calculations: $5 \text{ VMT/day} * 3.95 \text{ lb/VMT} = 19.75 \text{ lbs/day}$
 $19.75 \text{ lbs/day} * 365 \text{ day/yr} * 0.0005 \text{ ton/lb} = 3.60 \text{ ton/yr}$

Addendum 20
Schellinger Construction Company, Inc.
Permit #2623-20

An addendum to air quality Permit #2623-20 is hereby granted to Schellinger Construction Company, Inc. (Schellinger), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Schellinger Construction Company, Inc. (Schellinger), operates a portable crushing/screening facility consisting of four crushers (up to 1400 tons per hour (TPH) combined capacity), three 3-deck screens (up to 800 TPH combined capacity), a diesel generator (up to 1000 kilowatts (kW)), and associated equipment.

II. Seasonal and Site Restrictions

Addendum 20 applies to the Schellinger facility while operating at any location in or within 10 km of certain PM₁₀ nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

A. During the winter season (October 1-March 31) - The only location(s) in or within 10 km of a particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment area where Schellinger may operate is:

1. NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 23, Township 30 North, Range 21 West (A-1 Paving Hodgson Road Pit)
2. NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 26, Township 29 North, Range 22 West (Tutvedt Pit)
3. NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 31, Township 29 North, Range 21 West (NUPAC Pit)
4. NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 22, Township 29 North, Range 21 West (A-1 Paving Pit)
5. N $\frac{1}{2}$ of Section 21, Township 30 North, Range 21 West (Carlson Pit)
6. S $\frac{1}{2}$ of the SE $\frac{1}{4}$ of Section 31, Township 31 North, Range 22 West (Peschel Pit)
7. NE $\frac{1}{4}$ and SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 9, Township 27 North, Range 21 West (Spoklie Pit)
8. NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 36, Township 30 North, Range 21 West (County Pit)
9. NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 36, Township 30 North, Range 21 West (Jellison Pit)
10. SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 11, Township 30 North, Range 20 West (Columbia Heights Pit)
11. Section 17, Township 29, Range 22 West (Beasley Pit)
12. Any other site that may be approved, in writing, by the Department of Environmental Quality (Department)

B. During the summer season (April 1-September 30) – Schellinger may operate at any location in or within 10 km of the Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte PM₁₀ nonattainment areas.

C. Schellinger shall comply with the limitations and conditions contained in Addendum 20 to Permit #2623-20 while operating in or within 10 km of any of the previously listed PM₁₀ nonattainment areas. Addendum 20 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 20 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Conditions and Limitations

A. Operational Conditions and Limitations – **Winter Season (October 1 – March 31)**

1. Water spray bars shall be available and operated, as necessary, on the crushers, screens, and all material transfer points to maintain compliance with the opacity limitations in Sections, III.A.2 and III.A.3 (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
3. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Schellinger shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
5. Schellinger shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. The combined crusher production (from the four crushers) is limited to 18,410 tons during any rolling 24-hour time period (ARM 17.8.749).
7. The combined screen production (from the three screens) is limited to 10,520 tons during any rolling 24-hour time period (ARM 17.8.749).
8. The hours of operation of the 1000 kW diesel generator shall not exceed 13 hours of operation during any rolling 24-hour time period (ARM 17.8.749).

B. Operational Conditions and Limitations – **Summer Season (April 1 – September 30)**

1. Water spray bars shall be available and operated, as necessary on the crushers, screens, and all material transfer points to maintain compliance with the opacity limitations in Sections III.B.2 and III.B.3 (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
3. Schellinger shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Schellinger shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
5. Schellinger shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).

6. The combined crusher production (from the four crushers) is limited to 33,600 tons during any rolling 24-hour time period (ARM 17.8.749).
7. The combined screen production (from the three screens) is limited to 19,200 tons during any rolling 24-hour time period (ARM 17.8.749).
8. The hours of operation of the 1000 kW diesel generator shall not exceed 13 hours of operation during any rolling 24-hour time period (ARM 17.8.749).

C. Operational Reporting Requirements

1. Schellinger shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).
2. Schellinger shall provide the Department with written notice of relocation of the permitted equipment within 15 working days of physical transfer of equipment (ARM 17.8.765).
3. Production information for the sites covered by this addendum must be submitted to the Department with the annual emissions inventory request or within 30 days of completion of the project. The information must include the following (ARM 17.8.749):
 - a. Tons of gravel crushed by each crusher at each site
 - b. Tons of material screened by each screen at each site
 - c. Tons of bulk material loaded at each site
 - d. Daily hours of operation at each site
 - e. Gallons of diesel used by the generator at each site
 - f. Fugitive dust information consisting of all plant vehicles, including the following for each vehicle type:
 - i. Number of vehicles
 - ii. Vehicle type
 - iii. Vehicle weight, loaded
 - iv. Vehicle weight, unloaded
 - v. Number of tires on vehicle
 - vi. Average trip length
 - vii. Number of trips per day per vehicle
 - viii. Average vehicle speed
 - ix. Area of activity
 - x. Vehicle fuel usage (gasoline and diesel) annual total
 - g. Fugitive dust control for haul roads and general plant area:
 - i. Hours of operation of water trucks; and
 - ii. Application schedule for chemical dust suppressant, if applicable.

4. Schellinger shall document, by day, the combined total crushing production during the winter season. Schellinger shall sum the combined total crushing production during the previous 24 hours to verify compliance with the limitation in Section III.A.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
5. Schellinger shall document, by day, the combined total crushing production during the summer season. Schellinger shall sum the combined total crushing production during the previous 24 hours to verify compliance with the limitation in Section III.B.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Schellinger shall document, by day, the combined total screening production during the winter season. Schellinger shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitation in Section III.A.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. Schellinger shall document, by day, the combined total screening production during the summer season. Schellinger shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitation in Section III.B.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
8. Schellinger shall document, by day, the hours of operation of the diesel generator during the winter months. Schellinger shall total the hours of operation of the diesel generator during the previous 24 hours to verify compliance with the limitation in Section III.A.8. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emissions inventory (ARM 17.8.749).
9. Schellinger shall document, by day, the hours of operation of the diesel generator during the summer season. Schellinger shall total the hours of operation of the diesel generator during the previous 24 hours to verify compliance with the limitation in Section III.B.8. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emissions inventory (ARM 17.8.749).

Addendum 20 Analysis
Schellinger Construction Company, Inc.
Permit #2623-20

I. Permitted Equipment

Schellinger Construction Company, Inc. (Schellinger), operates a portable crushing/screening facility consisting of four crushers (up to 1400 tons per hour (TPH) combined capacity), three 3-deck screens (up to 800 TPH combined capacity), a diesel generator (up to 1000 kilowatts (kW)), and associated equipment. Addendum 20 applies to the Schellinger facility while operating at any location in or within 10 km of certain PM₁₀ nonattainment areas.

II. Source Description

Schellinger uses the crushing/screening plant to crush and sort sand and gravel. For a typical operational setup, the raw materials are loaded into a hopper and conveyed to the crushing/screening plant. Materials are crushed by the crushers, screened and sorted by the screens, and conveyed to stockpile for sale and use, generally for construction operations.

III. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

- A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- B. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;
 - 2. The source will operate in the new location for a period of less than 1 year; and
 - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

Schellinger must submit proof of compliance with the transfer and public notice requirements when they transfer to the location(s) covered by this addendum, and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations of Addendum 20 to Permit #2623-20 will prevent Schellinger from having a significant impact on certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas.

IV. **Emission Inventory (Addendum 20 to Permit #2623-20)**

Source	Lbs/Day					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Four crushers (up to 1400 TPH)	21.84	9.88				
Three screens (up to 800 TPH)	22.88	7.67				
Material Transfer	10.92	3.64				
Pile Forming	49.92	23.40				
Bulk Loading	11.44	3.90				
Diesel Generator (up to 1000 KW)	12.20	12.20	540.42	12.38	95.88	141.03
Haul Roads	55.60	15.80				
Total	184.80	76.49	540.42	12.38	95.88	141.03

Emission Inventory for Winter Season

Crushers (up to 1400 ton/hour combined capacity)

Maximum Process Rate: 1400 ton/hr
Hours of operation: 4800 hr/yr

PM Emissions:

Emission Factor: 0.0012 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.0012 lbs/ton * 1400 ton/hr = 1.68 lb/hr
Daily Calculations: 1.68 lb/hr * 13 hrs/day = 21.84 lbs/day
Annual Calculations: 1.68 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 4.03 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00054 lbs/ton * 1400 ton/hr = 0.76 lb/hr
Daily Calculations: 0.76 lb/hr * 13 hrs/day = 9.88 lbs/day
Annual Calculations: 0.76 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 1.82 ton/yr

Screens (up to 800 ton/hour combined capacity)

Maximum Process Rate: 800 ton/hr
Hours of operation: 3650 hr/yr

PM Emissions:

Emission Factor: 0.0022 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.0022 lbs/ton * 800 ton/hr = 1.76 lb/hr
Daily Calculations: 1.76 lb/hr * 13 hrs/day = 22.88 lbs/day
Annual Calculations: 1.76 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 4.22 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00074 lbs/ton * 800 ton/hr = 0.59 lb/hr
Daily Calculations: 0.59 lb/hr * 13 hr/day = 7.67 lbs/day
Annual Calculations: 0.59 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 1.42 ton/yr

Diesel Generator

Generator Size = up to 1000 kW
1kW = 1.341 hp
1000 kW * 1.341 = 1341 hp

Hours of operation: 4800 hr/yr -- or -- 13 hr/day

PM Emissions

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.0007 lb/hp-hr = 0.94 lb/hr
Daily Calculations: 1341 hp * 0.0007 lb/hp-hr * 13 hr/day = 12.22 lb/day
Annual Calculation: 1341 hp * 0.0007 * 4800hr/yr * 0.0005 lb/ton = 2.25 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0007 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.0007 lb/hp-hr = 0.94 lb/hr
Daily Calculations: 1341 hp * 0.0007 lb/hp-hr * 13 hr/day = 12.22 lb/day
Annual Calculation: 1341 hp * 0.0007 * 4800 hr/yr * 0.0005 lb/ton = 2.25 ton/yr

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.031 lb/hp-hr = 41.57 lb/hr
Daily Calculations: 1341 hp * 0.031 lb/hp-hr * 13 hr/day = 540.42 lb/day
Annual Calculation: 1341 hp * 0.031 * 4800hr/yr * 0.0005 lb/ton = 99.77 ton/yr

VOC Emissions:

Emission Factor: 0.00071 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.00071 lb/hp-hr = 0.95 lb/hr
Daily Calculations: 1341 hp * 0.00071 lb/hp-hr * 13 hr/day = 12.382 lb/day
Annual Calculation: 1341 hp * 0.00071 * 4800hr/yr * 0.0005 lb/ton = 2.28 ton/yr

CO Emissions:

Emission Factor: 0.0055 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.0055 lb/hp-hr = 7.38 lb/hr
Daily Calculations: 1341 hp * 0.0055 lb/hp-hr * 13 hr/day = 95.88 lb/day
Annual Calculation: 1341 hp * 0.0055 * 4800hr/yr * 0.0005 lb/ton = 17.71 ton/yr

SOx Emissions:

Emission Factor: 0.00809 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
Hourly Calculations: 1341 hp * 0.00809 lb/hp-hr = 10.85 lb/hr
Daily Calculations: 1341 hp * 0.00809 lb/hp-hr * 13 hr/day = 153.57 lb/day
Annual Calculation: 1341 hp * 0.00809 * 4800hr/yr * 0.0005 lb/ton = 26.04 ton/yr

Material Transfer

Process Rate: 400 ton/hr
Number of Transfers 15 transfers
Hours of operation: 4800 hr/yr

PM Emissions:

Emission Factor: 0.00014 lb/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00014 lb/ton * 400 ton/hr * 15 transfers = 0.84 lb/hr
Daily Calculations: 0.84 lb/hr * 13 hr/day = 10.92 lb/day
Annual Calculations: 0.84 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 2.02 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.000046 lb/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.000046 lb/ton * 400 tons/hr * 15 transfers = 0.28 lb/hr
Daily Calculations: 0.28 lb/hr * 13 hr/day = 3.64 lb/day
Annual Calculations: 0.28 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 0.67 ton/yr

Pile Forming

Process Rate: 400 ton/hr
Number of Piles 3 piles
Hours of operation: 4800 hr/yr

PM Emissions:

Emission Factor: 0.0032 lb/ton (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: 0.0032 lb/ton * 400 ton/hr * 3 piles = 3.84 lb/hr
Daily Calculations: 3.84 lb/hr * 13 hr/day = 49.92 lb/day
Annual Calculations: 3.84 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 9.22 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0015lb/ton (AP-42, Section 13.2.4, 1/95)
Hourly Calculations: 0.0015 lb/ton * 400 ton/hr * 3 piles = 1.80 lb/hr
Daily Calculations: 1.80 lb/hr * 13 hr/day = 23.40 lb/day
Annual Calculations: 1.80 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 4.32 ton/yr

Bulk Loading

Process Rate: 400 ton/hr
Number of Loads 4 load
Hours of operation: 4800 hr/yr

PM Emissions:

Emission Factor: 0.0022lb/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.0022 lb/ton * 400 ton/hr = .88 lb/hr
Daily Calculations: 0.88 lb/hr * 13 hr/day = 11.44 lb/day
Annual Calculations: 0.88 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 2.11 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00074 lb/ton * 400 ton/hr = 0.30 lb/hr
Daily Calculations: 0.30 lb/hr * 13 hr/day = 3.90 lb/day
Annual Calculations: 0.30 lb/hr * 4800 hr/yr * 0.0005 ton/lb = 0.72 ton/yr

Haul Roads

Vehicle miles traveled: 4 VMT/day {Estimated}
Assumption: Rated Load Capacity < 50 tons
Hours of Operation: 3650 hr/yr
10 hr/day

TSP Emissions:

Emission Factor: 13.90 lb/VMT
Calculations: 4.0 VMT/day * 13.90 lb/VMT = 55.60 lb/day
55.60 lb/day * 365 day/yr * 0.0005 ton/lb = 10.15 ton/yr

PM-10 Emissions:

Emission Factor: 3.95 lb/VMT
Calculations: 4.0 VMT/day * 3.95 lb/VMT = 15.80 lb/day
15.80 lb/day * 365 day/yr * 0.0005 ton/lb = 2.88 ton/yr

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM₁₀. As a result of this designation, the EPA required the Department and the City-County Health Departments to submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies identified these sources to be the major contributors to PM₁₀ emissions.

Addendum 20 to Permit #2623-20 is for a portable crushing/screening plant to locate at sites in or within 10 km of certain PM₁₀ nonattainment areas during the summer season (April 1 through September 30). Summer seasons may include locations in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM₁₀ nonattainment areas. Winter season (October 1 through March 31) operations may include only the locations listed in Section II.A of Addendum 20.

VI. Air Quality Impacts

Schellinger applied for an air quality permit to operate a portable crushing/screening plant to be located at various locations throughout Montana. Permit #2623-20 and Addendum 20 will cover the Schellinger crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas considered tribal lands. Based on the information provided, the amount of controlled emissions generated by this facility will not exceed any ambient air quality standard. In addition, this source is portable and any air quality impacts will be minimal.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, Montana Code Annotated (MCA), the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment was not required for the current permit action because it is considered an administrative amendment.

Analysis prepared by: Julie Merkel
Date: January 31, 2007