



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 092015-015

Project Number: 2015-06-064
Installation ID: 187-0006

Parent Company: Fred Weber, Inc.

Parent Company Address: 2320 Creve Coeur Mill Road, Maryland Heights, MO 63043

Installation Name: Iron Mountain Trap Rock Co.

Installation Address: 1325 Highway NN, Iron Mountain, MO 63650

Location Information: St. Francois County, S31, T35N, R4E

Application for Authority to Construct was made for:

The installation of a new tertiary crusher, screen, and conveyance system. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.

[] Standard Conditions (on reverse) are applicable to this permit.

[x] Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

SEP 25 2015

EFFECTIVE DATE

[Handwritten signature]

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources' regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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| Permit No. | |
| Project No. | 2015-06-064 |

SITE SPECIFIC SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

1. Superseding Condition

The conditions of this permit supersede all special conditions found in the previously issued construction permits 0498-010, 0299-003, 072001-014, 012006-008, 102006-007, 102006-007A, 072009-019, 102006-007B, 082008-012, 082008-012A, and 082011-005 from the Air Pollution Control Program.

2. Best Management Practices Requirement

Iron Mountain Trap Rock Co. shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

3. Ambient Air Impact Limitation

A. Iron Mountain Trap Rock Co. shall not cause an exceedance of the NAAQS for PM₁₀ of 150.0 µg/m³ 24-hour average in ambient air.

B. Iron Mountain Trap Rock Co. shall demonstrate compliance with Special Condition 3.A using Attachment A or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. Iron Mountain Trap Rock Co. shall account for the impacts from other sources of PM₁₀ as instructed in the attachment.

4. Annual Emission Limit

A. Iron Mountain Trap Rock Co. shall emit less than 38.42 tons of PM₁₀ in any consecutive 12-month period from the main aggregate crushing operation.

B. Iron Mountain Trap Rock Co. shall demonstrate compliance with Special Condition 4.A using Attachments B or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms.

5. Wet Suppression Control System Requirement

A. Iron Mountain Trap Rock Co. shall install and operate wet spray devices on the following equipment.

- 1) Primary Crusher (EP105)
- 2) Svedala Scalping Screen (104A)
- 3) Svedala S4000 Cone Crusher (EP107)
- 4) Svedala Screen (104B)
- 5) Svedala H4000 Cone Crusher (EP109A)

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SITE SPECIFIC SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- 6) Svedala H4800 Cone Crusher (EP109B)
 - 7) Drop from New Conveyor C22 to New conveyor C23 (EP106AQ)
 - 8) Drop from New Conveyor C24 to New Conveyor C25 (EP106AT)
 - 9) Drop from new Conveyor C27 to New Conveyor C28 (EP106AX)
- B. Watering may be suspended during periods of freezing condition, when use of the wet spray devices may damage the equipment. During these conditions, Iron Mountain Trap Rock Co. shall adjust the production rate to control emissions from these units. Iron Mountain Trap Rock Co. shall record a brief description of such events.
6. Moisture Content Testing Requirement
- A. Iron Mountain Trap Rock Co. shall verify that the moisture content of the storage pile is greater than or equal to 1.5 percent (%) by weight.
 - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
 - C. The initial test shall be conducted no later than 45 days after the issuance of this permit. A second test shall be performed the calendar year following the initial test during the months of July or August.
 - D. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Iron Mountain Trap Rock Co. main office within 30 days of completion of the required test.
 - E. If the moisture content of either of the two tests is less than the moisture content in Special Condition 6.A, another test may be performed within 15 days of the noncompliant test. If the results of that test is less than the moisture content in Special Condition 6.A, Iron Mountain Trap Rock Co. shall apply for a new permit to account for the revised information.
7. Minimum Distance to Property Boundary Requirement
- The primary emission point of the main aggregate crushing operation, which is the primary crusher (EP105), shall be located at least 2,000 feet from the nearest property boundary.
8. Primary Equipment Requirement
- Iron Mountain Trap Rock Co. shall process all rock of the aggregate crushing operation through the primary crusher (EP105). Bypassing the primary equipment is prohibited.

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| Permit No. | |
| Project No. | 2015-06-064 |

SITE SPECIFIC SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

9. Concurrent Operation Limitation
Iron Mountain Trap Rock Co. is prohibited from operating concurrently with plants not owned by Fred Weber, Inc.

10. Record Keeping Requirement
Iron Mountain Trap Rock Co. shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources' personnel upon request.

11. Reporting Requirement
Iron Mountain Trap Rock Co. shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedances of the limitations imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW

Project Number: 2015-06-064
Installation ID Number: 187-0006
Permit Number:

Iron Mountain Trap Rock Co.
1325 Highway NN
Iron Mountain, MO 63650

Complete: June 25, 2015

Parent Company:
Fred Weber, Inc.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

St. Francois County, S31, T35N, R4E

INSTALLATION DESCRIPTION

Fred Weber, Inc. owns and operates a stationary rock crushing installation in St. Francois County under the name of Iron Mountain Trap Rock Co. This installation is permitted for two separate operations: a main aggregate crushing operation that is in operation and a roofing granules drying operation that has not been constructed yet. The maximum hourly design rate of the main aggregate crushing operation is 500 tons per hour. The plants are powered through primary electrical power and no diesel engines are being used at the site. However, the roofing granules operation has a dryer, which will generate combustion emissions. Fred Weber, Inc. asked, in the issuance of the permit for the roofing granules operation (No. 032015-009), that certain information be kept confidential. Therefore, no more information (e.g. equipment list, MHDR, etc.) for the roofing granules operation is given in this permit. A new portable screening plant owned by Fred Weber, Inc., PORT-0717, was permitted in July, 2015 (Permit No. 072015-010) to be located at this site. A ballast plant was permitted to be at the site as a portable plant in August, 2008 (Permit No. 082008-012). It was granted an extension to stay at the site in August, 2010 (Permit No. 082008-012A) and was converted to a stationary plant in August, 2011 (Permit No. 082011-005). This plant has been removed from the site.

This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability. The plant is a minor source for construction permits and has an intermediate operating permit. However, during the review of this project, it was determined that the facility may qualify for a Basic Operating Permit. Since this facility is not a Named Installation, fugitive emissions are not counted to determine its operating permit status. Calculations performed without fugitive emissions show that emissions of all pollutants are less than 100 tpy.

The facility may submit, after the issuance of this permit, a Basic Permit application to replace its current Intermediate Operating Permit application (Project No. 2013-03-018). The new Basic Operating Permit application shall include an installation-wide PTE calculation to confirm that all emissions, without fugitives, are less than 100 tpy.

St. Francois County is an attainment area for all criteria pollutants. The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

PROJECT DESCRIPTION

Iron Mountain Trap Rock Co. proposes to add a new tertiary crusher, screen, and associated conveyors to the main aggregate crushing operation. The additions will de-bottleneck the process from 500 tph to 700 tph. Also, Permit No. 082011-005 issued to the ballast plant superseded the special conditions for the main aggregate crushing operation instead of previous permits from the ballast plant, creating some confusing special conditions that currently exist for the installation. In order to clarify the situation, special conditions in all of the previous permits issued to the main aggregate crushing operation and the ballast plant are superseded by this permit. The ballast plant has been removed from the site, so there are no more special conditions that apply to the ballast plant.

During the review for this project, it was discovered that in the permit issued to the roofing granules plant (No. 032015-009), the installation is required to limit the plant's PM_{2.5} emissions to less than 10.0 tpy. However, the conditioned potential emissions of PM₁₀ are still greater than 15.0 tpy (at 16.18 tpy). For all stationary plants in Missouri, increment modeling analysis is required for projects with PM₁₀ emissions greater than 15.0 tpy, but increment modeling was never performed for this project. Therefore, the 10.0 tpy PM_{2.5} limit was issued in error. Because the facility would like to keep the roofing granules operation permit separate from the current project, this error cannot be corrected in this permit. Iron Mountain Trap Rock Co. shall submit an amendment request to the Air Pollution Control Program to change the 10.0 tpy PM_{2.5} limit to a 15.0 tpy PM₁₀ limit.

TABLES

The following permits have been issued to Iron Mountain Trap Rock Co. from the Air Pollution Control Program.

Table 1: Permit History

| Permit Number | Description |
|---------------|--|
| 0498-010 | Permitting of conveyors and a crusher that were added by previous owners without obtaining a permit from the Missouri Air Pollution Control Program. |
| 0299-003 | Addition of rock crushing equipment and a new diesel generator. |
| 072001-014 | Installation of crushers, conveyors, stackers, and bins. |
| 012006-008 | Adding a screen, a crusher, conveyors, and stackers. |

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| 102006-007 | Increasing production. |
| 102006-007A | Recalculating emissions. |
| 102006-007B | Reevaluating emissions. |
| 072009-019 | Adding conveyors. |
| 082011-005 | Converting a portable ballast plant to a stationary plant at the site. |
| 082014-006 | Temporary modification of the ballast plant. |
| 032015-009 | New crushing plant (referred to as a roofing granules plant). Both public and confidential permits were issued under the same permit number. |

Tables 2 and 3 lists the existing potential emissions of the installation with and without fugitive emissions. The existing potential emissions of the main aggregate operation were recalculated during the review for this project and are based on unconditioned potential emissions. The existing potential emissions of the roofing granule operation were based on data in the calculation spreadsheet for Permit No. 032015-009 and include the 10.0 PM_{2.5} limit from the roofing granule operation. The existing potential emissions of the installation are the sum of the existing potential emissions of the main aggregate operation and the roofing granules operation.

Table 2: Existing Potential Emissions (tons per year) Without Fugitives

| Air Pollutant | De Minimis Level/SMAL | Existing Potential Emissions of the Main Aggregate Operation | Existing Potential Emissions of the Roofing Granule Operation | Existing Potential Emissions of the Installation |
|----------------------------------|------------------------|--|---|--|
| PM | 25.0 | 35.85 | ^c 10.91 | 46.76 |
| PM ₁₀ | 15.0 | 13.12 | ^c 7.98 | 21.1 |
| PM _{2.5} | 10.0 | 2.50 | ^c 6.62 | 9.12 |
| SO _x | 40.0 | N/A | 32.59 | 32.59 |
| NO _x | 40.0 | N/A | 22.83 | 22.83 |
| VOC | 40.0 | N/A | 0.47 | 0.47 |
| CO | 100.0 | N/A | 2.08 | 2.08 |
| GHG (CO ₂ e) | 100,000 | N/A | 68.73 | 68.73 |
| GHG (mass) | 250.0 | N/A | 68.96 | 68.96 |
| Formaldehyde | 10.0/2.0 ^a | N/A | 0.01 | 0.01 |
| 2-methylnaphthalene ^b | 10.0/0.01 ^a | N/A | N/A | N/A |
| Lead Compounds | 10.0/0.01 ^a | N/A | 0.0006 | 0.0006 |
| Total HAPs | 25.0 | N/A | 0.25 | 0.25 |

N/A = Not Applicable; N/D = Not Determined ^aSMAL. ^b2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group. ^cProportionally reduced based on a 10 tpy PM_{2.5} limit that includes both fugitive and non-fugitive emissions.

Table 3: Existing Potential Emissions (tons per year) With Fugitives

| Air Pollutant | De Minimis Level/SMAL | Existing Potential Emissions of the Main Aggregate Operation | Existing Potential Emissions of the Roofing Granule Operation | Existing Potential Emissions of the Installation. |
|-------------------|-----------------------|--|---|---|
| PM | 25.0 | 189.72 | 48.06 | 237.78 |
| PM ₁₀ | 15.0 | 54.07 | 16.18 | 70.25 |
| PM _{2.5} | 10.0 | 21.62 | <10.00 | 31.62 |
| SO _x | 40.0 | N/A | 32.59 | 32.59 |
| NO _x | 40.0 | N/A | 22.83 | 22.83 |

| | | | | |
|----------------------------------|------------------------|-----|--------|--------|
| VOC | 40.0 | N/A | 0.47 | 0.47 |
| CO | 100.0 | N/A | 2.08 | 2.08 |
| GHG (CO ₂ e) | 100,000 | N/A | 68.73 | 68.73 |
| GHG (mass) | 250.0 | N/A | 68.96 | 68.96 |
| Formaldehyde | 10.0/2.0 ^a | N/A | 0.01 | 0.01 |
| 2-methylnaphthalene ^b | 10.0/0.01 ^a | N/A | N/A | N/A |
| Lead Compounds | 10.0/0.01 ^a | N/A | 0.0006 | 0.0006 |
| Total HAPs | 25.0 | N/A | 0.25 | 0.25 |

N/A = Not Applicable; N/D = Not Determined ^aSMAL. ^b2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

In Table 4, the existing actual emissions are taken from the 2014 EIQ. The baseline actual emissions (BAE) are based on the average productions from 2010 and 2011. Project emissions increases are calculated by using the After Project PTE minus BAE. Emissions increases from the project are determined to be greater than the *de minimis levels*. In order to avoid modeling requirements, the PM₁₀ emissions were limited to 15.0 tons plus the BAE, which is 38.42 tpy (labeled “New Project Emissions Limit” in Table 4). With this limit, the PM_{2.5} emissions from the project would be limited to less than the 10.0 tpy *de minimis* level (3.81 tpy). The PM emissions from the project will still be greater than the *de minimis* level of 25.0 tpy (47.82 tpy), but PM does not trigger any modeling requirements. All of the emissions in Table 4 are based only on the main aggregate operation as the roofing granule operation is not part of this project.

Table 4: Project Emissions Summary (tons per year) With Fugitives

| Air Pollutant | De Minimis Level/SMAL | Existing Actual Emissions (2014 EIQ) | Baseline Actual Emissions | After Project PTE | Project Emissions Increase | New Project Emissions Limit |
|----------------------------------|------------------------|--------------------------------------|---------------------------|-------------------|----------------------------|-----------------------------|
| PM | 25.0 | N/D | 82.17 | 311.14 | 230.49 | 129.94 |
| PM ₁₀ | 15.0 | 20.72 | 23.42 | 92.00 | 69.01 | <38.42 |
| PM _{2.5} | 10.0 | 1.18 | 9.36 | 31.48 | 22.29 | 13.14 |
| SO _x | 40.0 | N/A | N/A | N/A | N/A | N/A |
| NO _x | 40.0 | N/A | N/A | N/A | N/A | N/A |
| VOC | 40.0 | N/A | N/A | N/A | N/A | N/A |
| CO | 100.0 | N/A | N/A | N/A | N/A | N/A |
| GHG (CO ₂ e) | 100,000 | N/A | N/A | N/A | N/A | N/A |
| GHG (mass) | 250.0 | N/A | N/A | N/A | N/A | N/A |
| Formaldehyde | 10.0/2.0 ^a | N/A | N/A | N/A | N/A | N/A |
| 2-methylnaphthalene ^b | 10.0/0.01 ^a | N/A | N/A | N/A | N/A | N/A |
| Lead Compounds | 10.0/0.01 ^a | N/A | N/A | N/A | N/A | N/A |
| Total HAPs | 25.0 | N/A | N/A | N/A | N/A | N/A |

N/A = Not Applicable; N/D = Not Determined

^aSMAL

^b2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. Controlled emission factors were used for equipment with wet spray devices or carryover.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A 90% control efficiency for PM and PM₁₀ and a 40% control efficiency for PM_{2.5} were applied to the emission calculations for the use of BMPs. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate in the storage pile is 1.5% by weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 5. The Air Pollution Control Program requires an AAQIA of PM₁₀ for all asphalt, concrete and rock-crushing plants regardless of the level of PM₁₀ emissions if a permit is required. An AAQIA is required for other pollutants (except for PM) if their emissions exceed their respective de minimis or SMAL. The AAQIA was performed using the Air Pollution Control Program's generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS or RAL for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant's production is limited to ensure compliance with the standard.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20.0 µg/m³ of PM₁₀ in accordance with the Air Pollution Control Program's BMPs interim policy.

Table 5: Ambient Air Quality Impact Analysis

| Pollutant | NAAQS/ RAL ($\mu\text{g}/\text{m}^3$) | Averaging Time | Maximum Modeled Impact from Aggregate Crushing ($\mu\text{g}/\text{m}^3$) | Maximum Modeled Impact from Roofing Granules Operation ($\mu\text{g}/\text{m}^3$) | Limited Impact ($\mu\text{g}/\text{m}^3$) | Background ($\mu\text{g}/\text{m}^3$) | ^b Daily Limit (tons/day) |
|--|---|-------------------|--|--|---|--|---|
| ^c PM ₁₀ (solitary/ same) | 150.0 | 24-hour | 68.38 | 177.64 | N/A | 20.0 | N/A |

^aModeled impact at maximum capacity with controls. This includes both the main aggregate crushing operation and the roofing granules operation since both are considered part of the same installation.

^bThe facility may balance production between the main aggregate crushing operation and the roofing granules operation to maintain compliance with NAAQS.

^cSolitary operation or operation with other plants that are owned by Fred Weber, Inc.

OPERATING SCENARIOS

The plant is permitted to operate with other plants owned by Fred Weber, Inc. located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Iron Mountain Trap Rock Co. shall demonstrate compliance with the NAAQS.

- When no other plants are located at the site, Fred Weber, Inc. shall track the ambient impact of the main aggregate crushing operation and the roofing granules operation to ensure that the ambient impact of the installation does not exceed the NAAQS using Attachment A.
- When plants that are owned by Fred Weber, Inc., which are referred to as same owner plants, are located at the site, Fred Weber, Inc. must calculate the daily impact of each plant and limit the total impact of all plants to not exceed the NAAQS using Attachment A.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM_{2.5} and PM₁₀ from the project are conditioned below *de minimis* levels. Potential emissions of PM from the project are greater than its *de minimis* level, but less than its major source level.

APPLICABLE REQUIREMENTS

Iron Mountain Trap Rock Co. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110.
- The installation may submit a Basic Operating Permit application to replace its current Intermediate Permit application (Project No. 2013-03-018).
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Chia-Wei Young
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated June 24, 2015, received June 25, 2015, designating Fred Weber, Inc. as the owner and operator of the installation.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources' personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rational for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources' personnel upon request.

APPENDIX A

Abbreviations and Acronyms

| | | | |
|-------------------------------|--|-------------------------------|--|
| % | percent | MMBtu | Million British thermal units |
| °F | degrees Fahrenheit | MMCF | million cubic feet |
| acfm | actual cubic feet per minute | MSDS | Material Safety Data Sheet |
| BACT | Best Available Control Technology | NAAQS ... | National Ambient Air Quality Standards |
| BMPs | Best Management Practices | NESHAPs .. | National Emissions Standards for Hazardous Air Pollutants |
| Btu | British thermal unit | NO_x | nitrogen oxides |
| CAM | Compliance Assurance Monitoring | NSPS | New Source Performance Standards |
| CAS | Chemical Abstracts Service | NSR | New Source Review |
| CEMS | Continuous Emission Monitor System | PM | particulate matter |
| CFR | Code of Federal Regulations | PM_{2.5} | particulate matter less than 2.5 microns in aerodynamic diameter |
| CO | carbon monoxide | PM₁₀ | particulate matter less than 10 microns in aerodynamic diameter |
| CO₂ | carbon dioxide | ppm | parts per million |
| CO_{2e} | carbon dioxide equivalent | PSD | Prevention of Significant Deterioration |
| COMS | Continuous Opacity Monitoring System | PTE | potential to emit |
| CSR | Code of State Regulations | RACT | Reasonable Available Control Technology |
| dscf | dry standard cubic feet | RAL | Risk Assessment Level |
| EQ | Emission Inventory Questionnaire | SCC | Source Classification Code |
| EP | Emission Point | scfm | standard cubic feet per minute |
| EPA | Environmental Protection Agency | SDS | Safety Data Sheet |
| EU | Emission Unit | SIC | Standard Industrial Classification |
| fps | feet per second | SIP | State Implementation Plan |
| ft | feet | SMAL | Screening Model Action Levels |
| GACT | Generally Available Control Technology | SO_x | sulfur oxides |
| GHG | Greenhouse Gas | SO₂ | sulfur dioxide |
| gpm | gallons per minute | tph | tons per hour |
| gr | grains | tpy | tons per year |
| GWP | Global Warming Potential | VMT | vehicle miles traveled |
| HAP | Hazardous Air Pollutant | VOC | Volatile Organic Compound |
| hr | hour | | |
| hp | horsepower | | |
| lb | pound | | |
| lbs/hr | pounds per hour | | |
| MACT | Maximum Achievable Control Technology | | |
| µg/m³ | micrograms per cubic meter | | |
| m/s | meters per second | | |
| Mgal | 1,000 gallons | | |
| MW | megawatt | | |
| MHDR | maximum hourly design rate | | |

Ms. Lina Klein
Environmental Director
Iron Mountain Trap Rock Co.
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: New Source Review Permit - Project Number: 2015-06-064

Dear Ms. Klein:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, Truman State Office Building, P.O. Box 1557, Jefferson City, MO 65102, website: www.oa.mo.gov/ahc. If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:cyl

Enclosures

c: Southeast Regional Office
PAMS File: 2015-06-064
Permit Number: