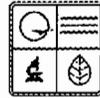


STATE OF MISSOURI



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: 062014-006

Project Number: 2014-04-024  
Installation ID: 059-0009

Parent Company: Hostetler Quarries, LLC

Parent Company Address: 63 Sterling Lane, Buffalo, MO 65622

Installation Name: Hostetler Quarries, LLC

Installation Address: 63 Sterling Lane, Buffalo, MO 65622

Location Information: Dallas County, S4 T32N R20W

Application for Authority to Construct was made for:  
Addition of new hopper grizzly feeder, crusher, screen, and eight conveyors to existing equipment. 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.

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

JUN 18 2014

EFFECTIVE DATE

*Kina L Moore*  
\_\_\_\_\_  
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.

Page No.	3
Permit No.	
Project No.	2014-04-024

**SITE SPECIFIC SPECIAL CONDITIONS:**

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

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*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 permit 032008-011 from the Air Pollution Control Program.
2. **Best Management Practices Requirement**  
Hostetler Quarries, LLC shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.
3. **Ambient Air Impact Limitation**
  - A. Hostetler Quarries, LLC shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM<sub>10</sub>) of 150.0 µg/m<sup>3</sup> 24-hour average in ambient air.
  - B. Hostetler Quarries, LLC shall demonstrate compliance with Special Condition 3.A using Attachment A and Attachment B or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. Hostetler Quarries, LLC shall account for the impacts from other sources of PM<sub>10</sub> as instructed in the attachments.
4. **Annual Emission Limit**
  - A. Hostetler Quarries, LLC shall emit less than 15.0 tons of PM<sub>10</sub> in any 12-month period from the entire installation.
  - B. Hostetler Quarries, LLC shall demonstrate compliance with Special Condition 4.A using Attachment C or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
5. **Moisture Content Testing Requirement**
  - A. Hostetler Quarries, LLC shall verify that the moisture content of the processed rock 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.

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Permit No.	
Project No.	2014-04-024

**SITE SPECIFIC SPECIAL CONDITIONS:**

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

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- C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
  - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
  - E. 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 Hostetler Quarries, LLC main office within 30 days of completion of the required test.
  - F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 5.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, Hostetler Quarries, LLC shall either:
    - 1) Apply for a new permit to account for the revised information, or
    - 2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
  - G. In lieu of testing, Hostetler Quarries, LLC may obtain test results that demonstrate compliance with the moisture content in Special Condition 5.A from the supplier of the aggregate.
6. **Minimum Distance to Property Boundary Requirement**  
The primary emission point, primary crusher (EP-25) shall be located at least 250 feet from the nearest property boundary.
7. **Primary Equipment Requirement**  
Hostetler Quarries, LLC shall process all rock through the primary crusher (EP-25). Bypassing the primary crusher is prohibited.
8. **Record Keeping Requirement**  
Hostetler Quarries, LLC 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.
9. **Reporting Requirement**  
Hostetler Quarries, LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten 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: 2014-04-024  
Installation ID Number: 059-0009  
Permit Number:

Hostetler Quarries, LLC  
63 Sterling Lane  
Buffalo, MO 65622

Complete: April 24, 2014

Parent Company:  
Hostetler Quarries, LLC  
63 Sterling Lane  
Buffalo, MO 65622

Dallas County, S4 T32N R20W

PROJECT DESCRIPTION

This project consists of adding new equipment to the existing crushing plant owned by Hostetler Quarries, LLC located in Buffalo Missouri, Dallas County, S4 T32N R20W. The equipment being added to the installation will be a new hopper grizzly feeder, primary crusher, primary screen, and eight conveyors. The MHDR of the new equipment will be 300 tons per hour (tph), bottlenecked by the new grizzly feeder. The existing equipment of the installation will succeed the new equipment in the process flow. The feed hopper that supplied the existing primary crusher, now designated as the secondary crusher, will not be used. The previous permit indicated the plant was powered by two engines. This installation will now be powered by the local utility, thus engine calculations were not determined.

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.

This installation is located in Dallas County, an attainment area for all criteria pollutants..

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.

A Basic Operating Permit amendment is required for this installation within 30 days of issuance of this permit.

## TABLES

Table 1: Installation Equipment List

Emission Unit	Description	MHDR	Units	Condition
EP-01A	Storage load-in	300.0	Tons	Existing
EP-01B	Storage wind erosion	5.0	Acres	Existing
EP-01C	Storage vehicular activity	0.6684	VMT	Existing
EP-01D	Storage load-out	300.0	Tons	Existing
EP-02	Secondary crusher	225.0	Tons	Existing
EP-03	Conveyor	225.0	Tons	Existing
EP-04	Secondary screen	225.0	Tons	Existing
EP-05	Conveyor	125.0	Tons	Existing
EP-06A	Pit haul road	3.4091	VMT	Existing
EP-06B	Plant haul road	15.1515	VMT	Existing
EP-07	Conveyor	100.0	Tons	Existing
EP-08	Tertiary screen	100.0	Tons	Existing
EP-09	New hopper grizzly feeder	300.0	Tons	New
EP-10	Primary crusher	300.0	Tons	New
EP-11	Conveyor (Underconveyor of primary)	300.0	Tons	New
EP-12	Conveyor	300.0	Tons	New
EP-13	Conveyor	300.0	Tons	New
EP-14	Conveyor to primary screen	300.0	Tons	New
EP-15	Primary screen	300.0	Tons	New
EP-16	Conveyor	75.0	Tons	New
EP-17	Conveyor	225.0	Tons	New
EP-18	Conveyor to secondary crusher	225.0	Tons	New
EP-19	Conveyor	100.0	Tons	New

The following permits have been issued to Hostetler Quarries, LLC from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
112001-022	Construction of a new rock crushing operation rated at 200 tons per hour
032008-011	Installation of a new screen, associated conveyors, and piles

No Notices of Excess Emissions or Notices of Violations have been issued for Hostetler Quarries, LLC in the last five years.

The table below summarizes the emissions of this project. The existing actual emissions were taken from the previous year's EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual emission limit.

Table 3: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	Potential Emissions of Process Equipment	Existing Actual Emissions (2013 EIQ)	<sup>a</sup> Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	10.22	N/D	53.31	37.63
PM <sub>10</sub>	15.0	3.75	6.912	21.21	<15.00
PM <sub>2.5</sub>	10.0	0.51	1.2399	5.23	3.69
SO <sub>x</sub>	40.0	0.0	N/A	0.0	0.0
NO <sub>x</sub>	40.0	0.0	N/A	0.0	0.0
VOC	40.0	0.0	N/A	0.0	0.0
CO	100.0	0.0	N/A	0.0	0.0
Total HAPs	25.0	0.0	N/A	0.0	0.0

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

<sup>a</sup>Includes site specific haul road and storage pile emissions

Table 4: Ambient Air Quality Impact Analysis

Pollutant	<sup>a</sup> NAAQS/RAL (µg/m <sup>3</sup> )	Averaging Time	<sup>b</sup> Maximum Modeled Impact (µg/m <sup>3</sup> )	Limited Impact (µg/m <sup>3</sup> )	Background (µg/m <sup>3</sup> )	<sup>c</sup> Daily Limit (tons/day)
<sup>d</sup> PM <sub>10</sub> (same)	150.0	24-hour	150.51	130.0	20.0	6559.2
<sup>e</sup> PM <sub>10</sub> (separate)	150.0	24-hour	150.51	50.0	100.0	3343.3

<sup>a</sup>National Ambient Air Quality Standards (NAAQS) and Risk Assessment Level (RAL)

<sup>b</sup>Modeled impact at maximum capacity with controls

<sup>c</sup>The daily limit is based on compliance with NAAQS and operation of only the stationary equipment at the limited impact levels.

<sup>d</sup>Solitary operation or operation with other plants that are owned by Hostetler Quarries, LLC

<sup>e</sup>Operation with other plants that are not owned by Hostetler Quarries, LLC

## EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (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. The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5 percent (%) by weight.

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 PM<sub>10</sub> and a 40% control efficiency for PM<sub>2.5</sub> are 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 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

### AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 3. The Air Pollution Control Program requires an AAQIA of PM<sub>10</sub> for all asphalt, concrete and rock-crushing plants regardless of the level of PM<sub>10</sub> emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (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 National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (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 µg/m<sup>3</sup> of PM<sub>10</sub> in accordance with the Air Pollution Control Program's BMPs interim policy.

### OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Hostetler Quarries, LLC shall demonstrate compliance with the NAAQS.

- When no other plants are located at this facility Hostetler Quarries, LLC must calculate its daily impact and limit the total impact below the NAAQS using Attachment A.
- When plants that are owned by Hostetler Quarries, LLC, which are referred to as same owner plants, are located at the site, Hostetler Quarries, LLC must calculate the daily impact of each plant and limit the total impact of all plants to not exceed the NAAQS using Attachment A.
- When plants that are not owned by Hostetler Quarries, LLC, which are referred to as separate owner plants, are located at the site, Hostetler Quarries, LLC must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Hostetler Quarries, LLC that are operating at the site. This total is limited to not exceed the NAAQS. Hostetler Quarries, LLC will limit the total impact of all plants they own and operate at the site to 50 µg/m<sup>3</sup> when any plants they do not own are located at the site. During this scenario, Hostetler Quarries, LLC shall use Attachment B to demonstrate compliance with the NAAQS. Hostetler Quarries, LLC is not permitted to operate with any plant that is not owned by Hostetler Quarries, LLC that has a separate owner background greater than 80 µg/m<sup>3</sup>.

## 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<sub>10</sub> are voluntarily conditioned below de minimis levels.

## APPLICABLE REQUIREMENTS

Hostetler Quarries, LLC 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.
- A Basic Operating Permit amendment is required for this installation within 30 days of issuance of this permit
- *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.

\_\_\_\_\_  
Bryce Mihalevich  
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 April 4, 2014, received April 11, 2014, designating Hostetler Quarries, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.







## 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<sup>1</sup> 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 rationale 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.

<sup>1</sup>For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

Mr. David Hostetler  
Partner and Manager  
Hostetler Quarries, LLC  
63 Sterling Lane  
Buffalo, MO 65622

RE: New Source Review Permit - Project Number: 2014-04-024

Dear Mr. Hostetler:

Enclosed with this letter is your permit to construct. Please study it carefully. 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 have any questions regarding this permit, please do not hesitate to contact Bryce Mihalevich, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:bml

Enclosures

c: Southwest Regional Office  
PAMS File: 2014-04-024  
Permit Number:

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To learn more about the Missouri Department of Natural Resources visit [dnr.mo.gov](http://dnr.mo.gov).*