

## 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: **092009-002** Project Number: 2009-06-059

Parent Company: Everett Quarries Company

Parent Company Address: P.O. Box 276, Plattsburg, MO 64477

Installation Name: Everett Quarries Plant 3

Installation Address: 660 SE Quarry Drive, Kingston, MO 64650

Location Information: Caldwell County, S27, T56N, R28W

Application for Authority to Construct was made for:  
The installation of a new portable rock crushing plant. 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.

SEP - 4 2009

EFFECTIVE DATE

A handwritten signature in black ink, appearing to read "James L. Kavanagh".  
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 not more than 60 days but at least 30 days in advance of this date. 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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#### GENERAL 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. **Portable Equipment Identification Requirement**  
To assure that each component is properly identified as being a part of this portable rock crushing plant, Everett Quarries Plant 3 shall provide and maintain suitable, easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the portable rock crushing plant.
2. **Relocation of the Portable Rock Crushing Plant**
  - A. The portable rock crushing plant shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.
    - 1) If the portable rock crushing plant is moving to a site previously permitted, and if there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
    - 2) If the portable rock crushing plant is moving to a new site, or if there are other plants or equipment at the site that have not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **Record Keeping Requirement**  
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

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**SITE SPECIFIC SPECIAL CONDITIONS:**

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

Site ID No.: 025-0003

Site Name: Everett Quarries 6

Site Address: 660 SE Quarry Drive, Kingston, MO 64650

Site County: Caldwell County, S27, T56N, R28W

1. **Best Management Practices**  
Everett Quarries Plant 3 (PORT-0637) shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing Best Management Practices, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
2. **Ambient Air Impact Limitation of PM<sub>10</sub>**
  - A. This limitation does not apply to the following operating scenarios at this site: I. Solitary Operation and III. Concurrent Separate-Owner Operation.
  - B. Everett Quarries Plant 3 (PORT-0637) shall ensure, while operating under II. Concurrent Same-Owner Operation or IV. Concurrent Same-and-Separate-Owner Operation, that the ambient impact of particulate matter less than ten (10) microns in diameter (PM<sub>10</sub>) at or beyond the nearest residence does not exceed 150.0 µg/m<sup>3</sup> in any 24-hour period.
  - C. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the portable plant and any ambient background concentration from installations or equipment located on the same site as the portable plant.
  - D. To demonstrate compliance with Site Specific Special Condition 2.B, Everett Quarries Plant 3 shall maintain a daily record of material processed. Attachment A, "Daily Ambient PM<sub>10</sub> Impact Tracking Record", or other equivalent form(s), will be used for this purpose.
3. **Annual Emission Limitation - PM<sub>10</sub>**
  - A. Everett Quarries Plant 3 (PORT-0637) shall emit less than 50.0 tons of PM<sub>10</sub> in any consecutive 12 month period from the entire installation consisting of the emission units listed in Table 1: Emission Unit Summary.
  - B. Everett Quarries Plant 3 shall maintain an accurate record of PM<sub>10</sub> emitted into the atmosphere from the emission units listed in Table 1: Emission Unit Summary. Attachment B or an equivalent form shall be used for this purpose. Everett Quarries Plant 3 shall maintain all records required by this permit for not less than five (5) years and shall make them available

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**SITE SPECIFIC SPECIAL CONDITIONS:**

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

immediately to any Missouri Department of Natural Resources' personnel upon request.

- C. Everett Quarries Plant 3 shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Site Specific Special Condition Number 3.B. indicate that the source exceeds the limitation of Site Specific Special Condition Number 3.A.
- 4. Moisture Content Testing Requirement
  - A. Everett Quarries Plant 3 (PORT-0637) shall verify that the moisture content of the aggregate stockpiles (EU21) is greater than or equal to 1.50 wt.% by testing.
  - B. Testing shall be conducted according to approved methods, such as those prescribed by the American Society for Testing Materials (ASTM D-2216 or C-566), EPA AP-42 Appendix C.2, or other method(s) approved by the Director. The initial test shall be conducted no later than 45 days after equipment startup.
  - C. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed on-site or at the Everett Quarries Plant 3 main office.
  - D. If the moisture content result of the first test is less than 1.50 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.50 wt.%, Everett Quarries Company shall apply for a new construction permit.
- 5. Restriction on Minimum Distance to the Nearest Property Boundary  
The primary emission point of the portable plant, which is the primary rock crusher (EU06), shall be located at least 1,050 feet from the nearest property boundary whenever it is operating at this site.
- 6. Record Keeping Requirement  
Everett Quarries Plant 3 shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

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**SITE SPECIFIC SPECIAL CONDITIONS:**

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

7. **Reporting Requirement**  
Everett Quarries Plant 3 shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (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: 2009-06-059  
Installation ID Number: PORT-0637  
Permit Number:

Everett Quarries Plant 3  
660 SE Quarry Drive  
Kingston, MO 64650

Complete: June 19, 2009

Parent Company:  
Everett Quarries Company  
P.O. Box 276  
Plattsburg, MO 64477

Caldwell County, S27, T56N, R28W

REVIEW SUMMARY

- Everett Quarries Company (Everett Quarries) has applied for the authority to install a new portable rock crushing plant at the existing quarry known as Everett Quarries 6.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment due to the combustion of diesel fuel. Potential HAP emissions are less than the Screening Model Action Levels.
- 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* of the New Source Performance Standards (NSPS) applies to the portable rock crushing plant.
- 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* of the New Source Performance Standards (NSPS) applies to one of the diesel engines (EU23), the other engine (EU24) was manufactured prior to the applicability date for the NSPS.
- The Maximum Achievable Control Technology (MACT) standard 40 CFR Part 63 Subpart ZZZZ, *National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, applies to the diesel engines (EU23 and EU24); however, there are no requirements.
- No air pollution control equipment is being used in association with the new equipment.
- 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> and NO<sub>x</sub> are above de minimis levels.

- This installation is located in Caldwell County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was performed to determine the ambient impact of PM<sub>10</sub> and NO<sub>x</sub>.
- Emissions testing is required for the equipment subject to 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*.
- Operating permits are not required for portable sources; therefore no Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Everett Quarries has proposed to install a new portable rock crushing plant to be initially located at the existing quarry known as Everett Quarries 6 in Caldwell County, Missouri. The portable plant has been assigned the plant identification number PORT-0637 by the Air Pollution Control Program and will be known as Everett Quarries Plant 3 by the parent company. As this is a new portable plant, no prior construction permits have been issued to Everett Quarries Plant 3 from the Air Pollution Control Program.

#### PROJECT DESCRIPTION

Everett Quarries Plant 3 proposes to construct a portable rock crushing plant that will be located at a quarry where rock, composed of non-metallic minerals, will be drilled, crushed, screened, and stored in various sized aggregate stockpiles.

Fragmented stone will be obtained through wet drilling (EU01) and then loaded (EU02) onto trucks for hauling over a 3168 foot unpaved haul road (EU03) to the rock crushing plant. The large stone fragments will be unloaded (EU04) into a grizzly feeder (EU05) which feeds large stones to the primary crusher (EU06). Crushed stones, 3 inch to 12 inch diameter, from the primary crusher (EU06) and throughs from the grizzly feeder (EU05) will be transferred by parallel conveyors (EU07 & EU08) to another grizzly feeder (EU09) and a screening operation (EU10). Overs from the grizzly feeder (EU11), 3/16 inch and greater, will be fed to the screens (EU12) while grizzly throughs and screened aggregate will be conveyed (EU13-EU16) directly to trucks (EU19) for transport over a 1584 foot haul road (EU20) for storage at the 1 acre stockpile (EU21). Oversized rock from the screening operation (EU10) will be returned by conveyors (EU17 & EU18) to the primary crusher (EU06). Rock will be loaded onto trucks with



front end loaders for shipment off-site over another 1584 foot haul road (EU22). No control devices will be used to control emissions from the equipment considered in this application.

The maximum hourly design rate (MHDR) for the proposed rock crushing plant is 500 tons rock per hour which is based on the rated capacity of the primary crusher (EU06). Power to the plant will be supplied by two 300 horsepower diesel fueled generators (EU23 and EU24). The following table provides a summary of the emission units considered for this application.

**Table 1: Emission Unit Summary**

<b>Emission Unit ID</b>	<b>Description</b>	<b>Equipment ID</b>	<b>MHDR</b>	<b>MHDR Units</b>
EU01	Wet Drilling	N/A	500	tons per hour
EU02	Truck Loading – Fragmented Stone	N/A	500	tons per hour
EU03	Haul Road #1	N/A	30	VMT
EU04	Truck Unloading – Fragmented Stone	N/A	500	tons per hour
EU05	Grizzly Feeder	T1F	500	tons per hour
EU06	Primary Crusher	T1CR	500	tons per hour
EU07 & EU08	Front and Side Discharge Conveyors	T1B1 & T1B2	500	tons per hour
EU09	Grizzly Feeder	T2F	500	tons per hour
EU10	Screens	T2S	500	tons per hour
EU11	Conveyor	T2B1	500	tons per hour
EU12	Conveyor	T2B2	500	tons per hour
EU13 – EU16	Front and 3 Side Discharge Conveyors	T2B3, T2B4, T2B5 & T2B6	500	tons per hour
EU17 & EU18	Return Conveyors	T3B1 & T3B2	500	tons per hour
EU19	Truck Loading – Conveyor	N/A	500	tons per hour
EU20	Haul Road #2	N/A	23.08	VMT
EU21	Storage Pile (Load In-Out/Vehicular Activity) Storage Pile (Wind Erosion)	N/A	500 1	tons per hour acres
EU22	Haul Road #3	N/A	20	VMT
EU23	Diesel Engine powered Generator	T4E1	300	Horsepower
EU24	Diesel Engine powered Generator	T4E2	300	Horsepower

## EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the following sections of the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition: Section 3.3 *Gasoline And Diesel Industrial Engines* (October 1996), Section 11.19.2 *Crushed Stone Processing and Pulverized Mineral Processing* (August 2004), Section 13.2.2 *Unpaved Roads* (November 2006), and Section 13.2.4 *Aggregate Handling and Storage Piles* (November 2006). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

**Table 2: Emissions Summary (tons per year)**

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	New Installation Conditioned Potential*
PM <sub>10</sub>	15.0	N/A	N/A	145.59	<50.0
SO <sub>x</sub>	40.0	N/A	N/A	5.54	N/A
NO <sub>x</sub>	40.0	N/A	N/A	84.22	N/A
VOC	40.0	N/A	N/A	6.88	N/A
CO	100.0	N/A	N/A	18.14	N/A
HAPs	10.0/25.0	N/A	N/A	0.08	N/A

N/A = Not Applicable

\*Potential emissions of PM<sub>10</sub> are limited to less than 50.0 tons per year in order to avoid refined modeling.

The pollutant of concern for the rock crushing activities, haul roads, and storage piles is PM<sub>10</sub>. The facility has agreed to verify that the moisture content of the rock exceeds 1.5%, and therefore the controlled emission factors were used for the rock crushing activities (EU01, EU02, EU04-EU19, & EU21). As the facility will also be using Best Management Practices, a control efficiency of 90% was applied to the vehicular activity associated with the haul roads and storage piles (EU03 & EU20-EU22). The large potential emissions of NO<sub>x</sub> are due to the combustion of diesel fuel for the generators (EU23 & EU24)

## 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> and NO<sub>x</sub> are above de minimis levels.

### APPLICABLE REQUIREMENTS

Everett Quarries Plant 3 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.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110*  
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *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 10-3.090*

### SPECIFIC REQUIREMENTS

- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants*
- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*
- *Maximum Achievable Control Technology (MACT) Regulations, 10 CSR 10-6.075, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ*
- *Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260*

### AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of PM<sub>10</sub> and NO<sub>x</sub>. Particulate emissions from the equipment in this application were modeled as a volume source using Nomograph tables developed by the Air Pollution Control Program. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m<sup>3</sup> of PM<sub>10</sub>.

The NO<sub>x</sub> emissions were modeled as a point source using Screen3 and the following stack parameters for the generators: release height = 10 feet, stack diameter = 6 inches, exhaust temperature = 920 °F, and the exhaust flow rate = 1,900 cubic feet per minute. The nearest property boundary for this project is expected to be no less than 1,050 feet from the primary crusher (EU06). The results of the ambient impact analysis, summarized below in Table 3, show that the ambient impacts of PM<sub>10</sub> and NO<sub>x</sub> do not exceed the National Ambient Air Quality Standards (NAAQS).

**Table 3: Ambient Air Quality Impact Analysis**

Pollutant	Ambient Impact Factor (µg/m <sup>3</sup> /ton)	Modeled Impact (µg/m <sup>3</sup> )	*Background (µg/m <sup>3</sup> )	NAAQS (µg/m <sup>3</sup> )	Averaging Time
PM <sub>10</sub>	0.0043	51.85	20.0	150.0	24-hour
NO <sub>x</sub>	N/A	37.22	N/A	100.0	Annual

\* Background PM<sub>10</sub> level of 20.00 µg/m<sup>3</sup> from haul roads and stockpiles.

The plant is permitted to operate under the following four scenarios summarized in Table 4 below.

**Table 4: Operating Scenarios**

Operating Scenario	Parent Company Allowed Impact (µg/m <sup>3</sup> )	Separate-Owner Background (µg/m <sup>3</sup> )	BMP Background (µg/m <sup>3</sup> )	Total Impact (µg/m <sup>3</sup> )	Plant Daily Production Limit (tons)
Solitary	51.85	N/A	20.00	71.85	N/A
Concurrent Same-Owner	130.00	N/A	20.00	150.00	**
Concurrent Separate-Owner	51.85	78.15	20.00	150.00	N/A
Concurrent Same-and-Separate-Owner	51.85	78.15	20.00	150.00	**

\*\* Everett Quarries must balance production between their concurrently operating plants so that the NAAQS is not exceeded.

I. Solitary Operation is defined as operation when no other installations are located on

the property. During Solitary Operation, Everett Quarries Plant 3 does not need to track its daily production, as the ambient impact analysis has shown the NAAQS will not be exceeded.

- II. Concurrent Same-Owner Operation is defined as operation when other plants owned by Everett Quarries are located on the property. During Concurrent Same-Owner Operation, Everett Quarries may balance the daily production from all plants owned by Everett Quarries such that the NAAQS is not exceeded.
- III. Concurrent Separate-Owner Operation is defined as operation when other plants not owned by Everett Quarries are located on the property. During Concurrent Separate-Owner Operation, Everett Quarries Plant 3 does not need to track its daily production, as the ambient impact analysis has shown the NAAQS will not be exceeded.
- IV. Concurrent Same-and-Separate-Owner Operation is defined as operation when plants are located on the property that are both owned and not owned by Everett Quarries. During Concurrent Same-and-Separate-Owner Operation, Everett Quarries may balance the daily production from all owned plants and must also include a background pollutant concentration for the plants not owned by Everett Quarries to ensure the NAAQS is not exceeded.

#### 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.

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Kathi Jantz  
Environmental Engineer

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Date

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated June 18, 2009, received June 19, 2009, designating Everett Quarries Company as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, dated July 15, 2009.

## Attachment A: Daily Ambient PM<sub>10</sub> Impact Tracking Record Everett Quarries Plant 3 (PORT-0637) – Portable Rock Crushing Plant

(Note: This sheet is required for operating under Scenario II: Concurrent Same Owner Operation  
and Scenario IV: Concurrent Same-and-Separate-Owner Operation )

Project Number: 2009-06-059  
 County, CSTR: Caldwell County, S27, T56N, R28W  
 Primary Unit Size: 500 tph  
 Distance to Nearest Property Boundary: 1,050 feet

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_ (Month, Day, Year)(Copy this sheet as needed.)

Date	Everett Quarries Everett Quarries Plant 3 PORT-0637 Project # 2009-06-059			Same-Owner Plant Plant Name: Plant ID: Permit #:			Same-Owner Plant Plant Name: Plant ID: Permit #:			Separate-Owner Plant Plant Name: Plant ID: Permit #:	<sup>3</sup> Back-ground Level (µg/m <sup>3</sup> )	<sup>4</sup> TOTAL Level (µg/m <sup>3</sup> )
	Daily Production (tons)	Ambient Impact Factor (µg/m <sup>3</sup> /ton)	<sup>1</sup> Daily Impact (µg/m <sup>3</sup> )	Daily Production (tons)	Ambient Impact Factor (µg/m <sup>3</sup> /ton)	<sup>1</sup> Daily Impact (µg/m <sup>3</sup> )	Daily Production (tons)	Ambient Impact Factor (µg/m <sup>3</sup> /ton)	<sup>1</sup> Daily Impact (µg/m <sup>3</sup> )	<sup>2</sup> Separate-Owner Background Level (µg/m <sup>3</sup> )		
		0.0043									20.00	
		0.0043									20.00	
		0.0043									20.00	
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Note 1: The Daily Impact (µg/m<sup>3</sup>) for each plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.  
 Note 2: Separate-Owner Background Level (µg/m<sup>3</sup>) is 0 when no other separately owned plants are located at the site and is 78.15 when other separately owned plants are co-located at the site.  
 Note 3: Background Level (µg/m<sup>3</sup>) is from Haul Roads and Stockpiles.  
 Note 4: The TOTAL Level (µg/m<sup>3</sup>) is calculated by summing the Daily Ambient Impact(s) and the Background Levels. A TOTAL Level not greater than 150 µg/m<sup>3</sup> in any 24-hour period indicates compliance.

## Attachment B - Monthly PM<sub>10</sub> Compliance Worksheet

Everett Quarries Plant 3  
 Caldwell County, S27, T56N, R28W  
 Project Number: 2009-06-059  
 Installation ID Number: PORT-0637  
 Permit Number: \_\_\_\_\_

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
(month, year) (month, year)

Month	Monthly Amount of Rock Crushed <sup>1</sup> (tons)	PM <sub>10</sub> Emission Factor (lbs/ton)	Monthly PM <sub>10</sub> Emissions <sup>2</sup> (lbs)	Monthly PM <sub>10</sub> Emissions <sup>3</sup> (Tons)	12-Month PM <sub>10</sub> Emissions <sup>4</sup> (Tons/Year)
Example		0.0665			
		0.0665			
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		0.0665			

Note 1: Enter the monthly total of rock crushed in the primary crusher (EU6) in tons per month  
 Note 2: The Monthly Emissions (lbs) are calculated by multiplying the Monthly rock crushed (tons) by the PM<sub>10</sub> Emission Factor (lbs PM<sub>10</sub> /tons rock crushed).  
 Note 3: The Monthly Emissions (tons) are calculated by dividing the Monthly emissions (lbs) by 2000  
 Note 4: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than 50.0 tons in any consecutive 12-month period indicates compliance.

## Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

### For Haul Roads:

1. Pavement of Road Surfaces –
  - A. The operator(s) may pave all or any portion of the haul roads with materials such as concrete, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions<sup>1</sup>” while the plant is operating.
  - B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
  
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) 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.)



**For Vehicle Activity Areas around Open Storage Piles:**

1. Pavement of Stockpile Vehicle Activity Surfaces –
  - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as concrete, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
  - B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  
2. Usage of Chemical Dust Suppressants –
  - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.
  
3. Usage of Documented Watering –
  - A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
  - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
  - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
  - D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
  - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Steve Clarkson  
President  
Everett Quarries  
P.O. Box 276  
Plattsburg, MO 64477

RE: New Source Review Permit - Project Number: 2009-06-059

Dear Mr. Clarkson:

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 and your new source review permit application 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 Kathi Jantz, at the Departments' 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

Kendall B. Hale  
New Source Review Unit Chief

KBH:kjl

Enclosures

c: Kansas City Regional Office  
PAMS File: 2009-06-059

Permit Number: