

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: **082014-021** Project Number: 2014-06-079
 Installation ID: 037-0053

Parent Company: Beyer Crushed Rock Co.

Parent Company Address: 408 High Grove Road, Grandview, MO 64030

Installation Name: Beyer Crushed Rock Company

Installation Address: 4600 E County Hwy Y, Cleveland, MO 64734

Location Information: Cass County, S26, T45N, R33W

Application for Authority to Construct was made for:
 Replacement of generator diesel engine. This review was conducted in accordance with Section (5), 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.

AUG 29 2014

EFFECTIVE DATE

Kyra 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.

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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. Fuel Requirement

- A. Beyer Crushed Rock Company shall burn exclusively distillate fuel oil No. 2 in their generator diesel engine (EU-1) with a sulfur content less than or equal to 0.0015% by weight.
- B. Beyer Crushed Rock Company shall demonstrate compliance with Special Condition 1.A by obtaining records of the fuel's sulfur content from the vendor for each shipment of fuel received or by testing each shipment of fuel for the sulfur content in accordance with the method described in 10 CSR 10-6.040 *Reference Methods*.
- C. Beyer Crushed Rock Company shall keep the records required by Special Condition 1.B with the unit and make them available for Department of Natural Resources' employees upon request.

2. Record Keeping Requirement

Beyer Crushed Rock Company 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.

3. Reporting Requirement

Beyer Crushed Rock Company 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 (5) REVIEW

Project Number: 2014-06-079
Installation ID Number: 037-0053
Permit Number:

Beyer Crushed Rock Company
4600 E County Hwy Y
Cleveland, MO 64734

Complete: July 8, 2014

Parent Company:
Beyer Crushed Rock Co.
408 High Grove Road
Grandview, MO 64030

Cass County, S26, T45N, R33W

PROJECT DESCRIPTION

This project consist of the replacement of an existing Caterpillar Model 3406 engine rated at 440 break horsepower (bhp) with a Caterpillar Model C15 engine rated at 540 bhp, manufactured in 2011, at Beyer Crushed Rock Co. located in Cleveland, MO. The new engine has a max fuel rate of 28.9 gal/hr and burns distillate fuel oil No. 2 with a sulfur content less than 0.0015% by weight.

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

This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

TABLES

The following permits have been issued to Beyer Crushed Rock Company from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
0689-008	Construction of a portable rock crushing plant
0694-011	Request to increase production
0796-010	Replacement of secondary crusher and three conveyors
0399-026	Installation of one 972 horsepower (hp) generator to replace one 460 hp generator and one 575 hp generator
102005-009	Apply Best Management Practices to control fugitive emissions from all haul roads and stockpiles
102005-009A	Allow colocation and change nearest property boundary distance
042011-005	Installation of additional 200 ton per hour rock crushing plant known as the Eagle Plant
042011-005A	Removal of duplicate attachment
052012-010	Addition of two screens, eleven conveyors, four bins, and one diesel generator

The table below summarizes the emissions of this project. The existing actual emissions were taken from the previous years EIQ. The potential emissions of the application represent the emissions of the engine assuming continuous operation (8760 hours per year). The installation conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual emission limit from permit 042011-005A.

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	^a Potential Emissions of the Application	Installation Conditioned Potential Emissions
PM	25.0	29.49	N/D	0.78	30.74
PM ₁₀	15.0	13.26	3.9289	0.78	14.04
PM _{2.5}	10.0	3.99	0.9251	0.78	4.77
SO _x	40.0	13.53	0.4103	2.88	16.41
NO _x	40.0	85.76	12.2182	15.55	101.31
VOC	40.0	2.19	0.6641	5.84	8.03
CO	100.0	22.78	2.9283	13.61	36.39
Total HAPs	25.0	0.04	N/D	0.06	0.10

N/D = Not Determined

^aIncludes site specific haul road and storage pile emissions

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 diesel generator were calculated using emission factors from AP-42 Section 3.3 Gasoline and Diesel Industrial Engines,” October 1996 and from 40 CFR Part 89.112 “Oxides of nitrogen, carbon monoxide, hydrocarbon, and particulate matter exhaust emissions standards,” Table 1. – Emission Standards

AMBIENT AIR QUALITY IMPACT ANALYSIS

The plant’s Ambient Air Quality Impact Analysis was modeled using the AERSCREEN screen modeling software; however, since the new generator is estimated to have an ambient impact of 0.75 µg/m³, the change in ambient impact factor between the two generators used to calculate the daily impact of the facility is assumed to be negligible. This installation shall continue to use the attachments provided in permit 042011-005A for the tracking and compliance of this facility.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Beyer Crushed Rock Company 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.
- *Operating Permits*, 10 CSR 10-6.065
- *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 IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" applies to the diesel generator and all diesel generators at this installation.
- 40 CFR 63, Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" applies to the diesel generator and all diesel generators at this installation.
- 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.
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), 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 June 20, 2014, received June 27, 2014, designating Beyer Crushed Rock Co. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Mr. Kevin Fahey
President
Beyer Crushed Rock Company
408 High Grove Road
Grandview, MO 64030

RE: New Source Review Permit - Project Number: 2014-06-079

Dear Mr. Fahey:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions 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: Kansas City Regional Office
PAMS File: 2014-06-079

Permit Number:

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