

Missouri Department of

dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

AUG 16 2019

Mr. Matt Blessant
Owner, President
Mulberry Limestone Quarry Co. PORT-0793
325 North 260th Street
Mulberry, KS 66756

RE: New Source Review - Permit Number: Project Number: 2019-06-003;
Installation Number: PORT-0793
RE: New Source Review Permit - Project Number: 2019-06-003

Dear Mr. Blessant:

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 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 is necessary for continued compliance. In addition, please note that Mulberry Limestone Quarry Co. PORT-0793 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. Please refer to the permits of any plant that you are operating with to see if their respective permits contain an ambient impact limit. 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

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.



Recycled paper

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, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.aa.mo.gov/ahc.

If you have any questions regarding this, please do not hesitate to contact Osborne, Russell, 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

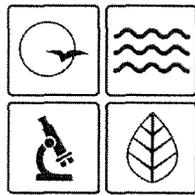
for 
Susan Heckenkamp
New Source Review Unit Chief

SH:ora

Enclosures

c: Southwest Regional Office
PAMS File: 2019-06-003

Permit Number:



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: 082019-005

Project Number: 2019-06-003
Installation ID: PORT-0793

Parent Company: Mulberry Limestone Quarry Co., Inc.

Parent Company Address: 325 North 260th Street, Mulberry, KS 66756

Installation Name: Mulberry Limestone Quarry Co. PORT-0793

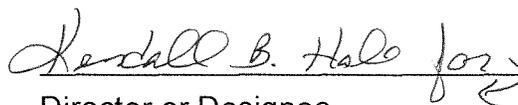
Installation Address: 670 N Dade 11 Road, Lamar, MO 64759

Location Information: Barton/Dade County, S14, 23, 24 T32N R29W

Application for Authority to Construct was made for:
Construction of an Eagle 1200-25CC portable rock crusher. 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.



Director or Designee
Department of Natural Resources

AUG 16 2019

Effective Date

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 Enforcement and Compliance Section of 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 Enforcement and Compliance Section of 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's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 using the contact information below.

Contact Information:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:

<http://dnr.mo.gov/regions/>

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 to 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 (3)(E). "Conditions required by permitting authority."

1. **Equipment Identification Requirement**
Mulberry Limestone Quarry Co. PORT-0793 shall maintain 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.
2. **Relocation of Portable Rock Crushing Plant**
 - A. Mulberry Limestone Quarry Co. PORT-0793 shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0704, contain a nonroad engine requirement limiting the portable plant at the site specific location to 12 consecutive months.
 - 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 the circumstances at the site have not changed, then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
 - 2) If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **Record Keeping Requirement**
Mulberry Limestone Quarry Co. PORT-0793 shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
4. **Reporting Requirement**
Mulberry Limestone Quarry Co. PORT-0793 shall report to the Air Pollution Control Program Compliance/Enforcement Section by mail at P.O. Box 176, Jefferson City, MO 65102 or by e-mail at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.

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 (3)(E). "Conditions required by permitting authority."

PORT ID Number: PORT-0793

Site ID Number: 011-0036

Site Name: Golden City Quarry

Site Address: 670 N Dade 11 Road, Lamar, MO 64759

Site County: Barton County, S14, 23, 24 T32N R29W

1. Annual Emission Limit
 - A. Mulberry Limestone Quarry Co. PORT-0793 shall emit less than 15.0 tons of PM₁₀ in any 12-month period from the entire installation which consists of the equipment listed in Table 1. The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions* shall be included in the limit.
 - B. Mulberry Limestone Quarry Co. PORT-0793 shall demonstrate compliance with Special Condition 1.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
2. Undocumented Watering Requirement

Mulberry Limestone Quarry Co. PORT-0793 shall apply a water spray on all haul roads and vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.
3. Wet Suppression Control System Requirement
 - A. Mulberry Limestone Quarry Co. PORT-0771 shall operate wet spray devices on all crushers.
 - B. Watering may be suspended during periods of freezing condition, when use of the wet spray devices may damage the equipment. During these conditions, Mulberry Limestone Quarry Co. PORT-0771 shall adjust the production rate to control emissions from these units. Mulberry Limestone Quarry Co. PORT-0771 shall record a brief description of such events.
4. Primary Equipment Requirement

Mulberry Limestone Quarry Co. PORT-0793 shall process all rock through the primary crusher (EP-02). Bypassing the primary crusher is prohibited.

SITE SPECIFIC SPECIAL CONDITIONS:

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

5. Performance Testing for New Source Performance Standards (NSPS)
 - A. Mulberry Quarry Company, Inc. PORT-0793 shall submit the enclosed testing plan to the Compliance / Enforcement Section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". Mulberry Quarry Company, Inc. PORT-0793 shall contact the Enforcement Section to obtain all requirements for testing, and the plan must be submitted to the Compliance / Enforcement Section at least 30 days prior to the proposed test date.
 - B. Testing must be performed no later than 60 days after achieving the maximum production rate of the process, and in any case no later than 180 days after initial startup. The performance test results shall be submitted to the Compliance / Enforcement Section via email at stacktesting@dnr.mo.gov no later than 30 days after completion of any required testing.
6. Diesel Engine Operational Restrictions
Mulberry Limestone Quarry Company, Inc. PORT-0793 shall only operate its diesel engine to power equipment during rock crushing production.
7. Nonroad Engine Requirement
 - A. Mulberry Limestone Quarry Company, Inc. PORT-0793's engine shall not remain at one location within this site longer than 12 consecutive months in order for their engine (John Deere 6135HF) to meet the definition of a nonroad engine as stated in 40 CFR 89.2. These engines shall be moved with its associated equipment at least once every 12 consecutive months at this site.
 - B. In accordance to Special Condition 7.A, Mulberry Limestone Quarry Company, Inc.'s authority to operate at this site expires on August 15, 2020.
8. Record Keeping Requirement
Mulberry Limestone Quarry Co. PORT-0793 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
Mulberry Limestone Quarry Co. PORT-0793 shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, 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: 2019-06-003
Installation ID Number: PORT-0793

Permit Number: 082019-005

Mulberry Limestone Quarry Co. PORT-0793:
670 N Dade 11 Road
Lamar, MO 64759

Complete: June 26, 2019

Parent Company:
Mulberry Limestone Quarry Co., Inc.
325 North 260th Street
Mulberry, KS 66756

Barton/Dade County, S14, 23, 24 T32N R29W

PROJECT DESCRIPTION

Mulberry Limestone Quarry Company, Inc. will be operating their portable rock crusher (PORT-0793) at the Golden City Quarry (Site ID 011-0036), 11 miles east of Lamar, Missouri. The quarry pit is located in Barton County and the stockpiles and scale are located in Dade County (county line splits the property). The portable plant consists of a primary crusher, Eagle 1200-25CC. The crusher is rated at 250 tons per hour, manufactured in 2014. There is a secondary crusher, three deck screen, and 7 conveyors/stackers. The site also consists of two acres of storage piles along with pit and shipping haul roads. Water spray devices are located on the primary and secondary crushers and water spray device carryover was applied to the screens and conveyors/stackers to control particulate matter emissions.

The portable rock crusher is powered by a John Deere 400 hp diesel engine, Model 6135HF, manufactured in 2008. The engine is mounted on the rock crusher allowing for the engine to be classified as nonroad according to 40 CFR 89.2. Because this plant will operate at this site less than 12 consecutive months, the engine emissions were not evaluated for this review as the diesel engine at this site is classified as a nonroad engine. 40 CFR 63 Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" and 40 CFR 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" do not apply as the engine is classified as nonroad.

Undocumented watering will be applied to control particulate matter emissions from haul roads and vehicular activity.

This installation is located in Barton/Dade County, attainment area for all criteria/unclassified pollutants.

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

No permits have been issued to Mulberry Limestone Quarry Co. PORT-0793 from the Air Pollution Control Program.

TABLES

Table 1: Emission Point and Equipment List of PORT-0793

Emission Point	Equipment Description	MHDR
EP-01	Grizzly/feeder	250 tph
EP-02	Primary Crusher Eagle 1200-25CC	250 tph
EP-03	Return Conveyor	250 tph
EP-04	3 Deck Screen	250 tph
EP-05	Screen Conveyors (3)	250 tph
EP-06	Stackers (2)	250 tph
EP-07	Secondary Crusher	250 tph
EP-08	Stacker	250 tph
EP-09a	Load-in	250 tph
EP-09b	Load-out	250 tph
EP-09c	Vehicular Activity (100 feet)	1.05 VMT
EP-09d	Wind Erosion	2.00 Acres
EP-10	Pit Haul Road (3749 feet)	7.1 VMT
EP-11	Shipping Haul Road (1056 feet)	4.44 VMT

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). Conditioned potential emissions account for the voluntary PM₁₀ annual emission limit to avoid dispersion modeling requirements found in 10 CSR-6.060 Section (5).

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	Existing Actual Emissions	^a Potential Emissions from Process Equipment	^b Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	N/A	5.50	442.00	49.32
PM ₁₀	15.0	N/A	2.14	134.43	<15.00
PM _{2.5}	10.0	N/A	0.32	16.24	1.81
SO _x	40.0	N/A	0.00	0.00	0.00
NO _x	40.0	N/A	0.00	0.00	0.00
VOC	40.0	N/A	0.00	0.00	0.00
CO	100.0	N/A	0.00	0.00	0.00
Total HAPs	25.0	N/A	0.00	0.00	0.00

^aExcludes site specific haul road and storage pile emissions

^bIncludes site specific haul road and storage pile emissions

EMISSIONS CALCULATIONS

Emissions for the project were calculated as described below and 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:

- 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 equipment is controlled by spray bar devices.

Emissions from aggregate handling:

- 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 equipment is controlled by water spray devices.

Emissions from haul roads and vehicular activity areas:

- Calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006.
- A 50% control efficiency for PM and PM₁₀ and a 41% control efficiency for PM_{2.5} were applied to the emission calculations for the use of undocumented watering.

Emissions from storage piles:

- Load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4 “Aggregate Handling And Storage Piles”, November 2006.
- 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 Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet.”

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual PM₁₀ emission limit of 15.0 tons per year for stationary plants in order to avoid refined modeling required by 10 CSR 10-6.060 (5)(D). Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM.

APPLICABLE REQUIREMENTS

Mulberry Limestone Quarry Co. PORT-0793 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.
- No Operating Permit is required because the plant is portable
- *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

- 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.
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.

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*, it is recommended that this permit be granted with special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May 29, 2019 received June 3, 2019 designating Mulberry Limestone Quarry Co., Inc. as the owner and operator of the installation.

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
EIQ	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	SSM	startup, shutdown, & malfunction
gr	grains	tph	tons per hour
GWP	Global Warming Potential	tpy	tons per year
HAP	Hazardous Air Pollutant	VMT	vehicle miles traveled
hr	hour	VOC	Volatile Organic Compound
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		