

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

AUG 23 2019

Mr. Terry Gibbs
Partner
Van Buren Stone Company, LLC
P.O. Box 970
Van Buren, MO 63965

RE: New Source Review - Permit Number:
Project Number: 2019-07-005; Installation Number: 035-0020

Dear Mr. Gibbs:

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 and your new source review permit application is necessary for continued compliance. In addition, please note that Van Buren Stone Company, LLC 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. 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.oa.mo.gov/ahc



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If you have any questions, please do not hesitate to contact Jared Rhodes, 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

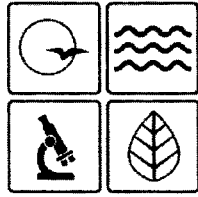
Susan Heckenkamp
New Source Review Unit Chief

SH:rja

Enclosures

c: Southeast Regional Office
PAMS File: 2019-07-005

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: **082019-007**

Project Number: 2019-07-005
Installation ID: 035-0020

Parent Company: Van Buren Stone Company, LLC

Parent Company Address: P.O. Box 970, Van Buren, MO 63965

Installation Name: Van Buren Stone Company, LLC

Installation Address: State Highway W, Van Buren, MO 63965

Location Information: Carter County, S08 T27N R01E

Application for Authority to Construct was made for:
Construction of a new stationary rock crushing installation. 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 23 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 Compliance/Enforcement 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 Compliance/Enforcement 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/>

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. Annual Emission Limit
 - A. Van Buren Stone Company, LLC 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 2. 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. Van Buren Stone Company, LLC shall demonstrate compliance with Special Condition 1 using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
2. Performance Testing for New Source Performance Standards (NSPS)
 - A. Van Buren Stone Company, LLC 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". Van Buren Stone Company, LLC shall contact the Compliance/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.
3. Best Management Practices Requirement
Van Buren Stone Company, LLC shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

SPECIAL CONDITIONS:

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

4. Moisture Content Testing Requirement

- A. Van Buren Stone Company, 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.
- 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 Van Buren Stone Company, 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 4, another test may be performed within 15 days of the noncompliant test. If the results of that test is less than the moisture content in Special Condition 4, Van Buren Stone Company, 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. Plans may be sent by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at aircompliancereporting@dnr.mo.gov. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.

5. Record Keeping Requirement

Van Buren Stone Company, 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.

6. Reporting Requirement

Van Buren Stone Company, LLC 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: 2019-07-005
Installation ID Number: 035-0020

Permit Number: **082019-007**

Van Buren Stone Company, LLC
State Highway W
Van Buren, MO 63965

Complete: July 13, 2019

Parent Company:
Van Buren Stone Company, LLC
P.O. Box 970
Van Buren, MO 63965

Carter County, S08 T27N R01E

PROJECT DESCRIPTION

Van Buren Stone Company, LLC is constructing a new crushing plant at their Van Buren quarry. Van Buren Stone Company, LLC already operates two existing independent plants under construction permit #042010-007 and amendment #042010-007B (project number 2019-07-010). The first plant is a 205 tons per hour rock crushing facility. The second plant is a 250 tons per hour rock crushing facility. These existing plants have production limits listed in amendment #042010-007B that apply when the new plant is operating. The new plant will be operated independently and is rated at 250 tons per hour. The new plant will consist of two crushers, one screen, a grizzly feeder, seven conveyors, and three stackers. The equipment of the crushing plant at Van Buren Stone Company, LLC is listed in Table 2. There will be two acres of storage piles of crushed limestone. The plant will be powered by electric line power.

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 Carter County, an attainment/unclassifiable 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 Van Buren Stone Company, LLC from the Air Pollution Control Program.

Table 1: Permit History for Site ID 035-0020

Permit Number	Description
0895-032	Section (6) permit for the installation of a portable rock crushing facility
0895-032A	Removed total suspended particulate (TSP) limits and replaced water spray requirements with moisture content testing
112001-020	Section (6) permit for the installation of a permanent rock crushing facility
042010-007	Section (5) permit for the installation of a new 250 ton/hr independently operated rock crushing facility
042010-007A	NAAQS for PM ₁₀ limit to allow other installations to operate on site
042010-007B	NAAQS for PM ₁₀ limit changed to a daily throughput limitation

Table 2: Equipment List

Emission Point	Equipment Description	MHDR
EU21	Grizzly Feeder	250 tph
EU22	Primary Impact Crusher / Cedarapids Model 4336	250 tph
EU23	Conveyor / Primary Crusher Discharge Conveyor	250 tph
EU24	Screen / JCI Model 6203-32	250 tph
EU25	Secondary Cone Crusher / Cedarapids Model RC54	250 tph
EU26	Conveyor / Secondary Crusher Discharge Conveyor	250 tph
EU27	Conveyor / Return Conveyor from Secondary Crusher	250 tph
EU28	4x Conveyors / Conveyors from Screen	500 tph
EU29	3x Stackers / Stackers from Screen	250 tph
EU30a	Storage Pile Load In / 2 Acres of Crushed Limestone	250 tph
b	Storage Pile Load Out	250 tph
c	Storage Pile Vehicular Activity	1.05 VMT/hr
d	Storage Pile Wind Erosion	2.00 Acres
EU31	Pit Haul Road / 2000ft	15.8 VMT/hr
EU32	Customer Haul Road / 2000ft	12.6 VMT/hr

The table below summarizes the emissions of this project. The potential emissions of the process equipment excludes emissions from haul roads and wind erosion. The existing actual emissions were taken from the 2012's EIQ (last full 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/SMAL	Existing Actual Emissions (2012 EIQ)	^a Existing Installation Potential Emissions	Potential Emissions of the Application	Project Conditioned Potential Emissions	^b Final Installation Potential Emissions
PM	25.0	N/D	47.30	195.93	47.38	94.68
PM ₁₀	15.0	2.06	<15.00	62.03	<15.0	<30.0
PM _{2.5}	10.0	0.37	3.57	14.83	3.59	7.16
SO _x	40.0	N/A	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A	N/A
VOC	40.0	N/A	^c 0.93	N/A	N/A	0.93
CO	100.0	N/A	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A	N/A
GHG (CO _{2e})	N/A	N/A	N/A	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A	N/A	N/A	N/A

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

^aExisting plant PTE conditioned to PM₁₀ less than de minimis with no daily production limit based on equipment list in construction permits 112001-020 and 042010-007

^bSum of PTE from existing plant with daily production limit of amendment 042010-007B and conditioned project PTE. Note that the 30tpy limit consists of two 15tpy limits.

^cVOC PTE from construction permit 112001-020 for diesel storage tanks

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 inherent moisture content of the crushed rock is greater than 1.5 % by weight.

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 90% control efficiency for PM and PM₁₀ and a 74% control efficiency for PM_{2.5} were applied to the emission calculations for the use of BMPs.

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 greater than 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. Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM.

APPLICABLE REQUIREMENTS

Van Buren Stone Company, 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.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110.
- No operating permit is required because conditioned potential emissions for the installation are below 100 tons per year.
- *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

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ and PM_{2.5} are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels but remain below major levels.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

The Application for Authority to Construct form, dated June 28, 2019, received July 02, 2019, designating Van Buren Stone Company, LLC as the owner and operator of the installation.

Attachment AA: Best Management Practices

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

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

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

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the 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.

APPENDIX A

Abbreviations and Acronyms

% percent	Mgal 1,000 gallons
°F degrees Fahrenheit	MW megawatt
acfm actual cubic feet per minute	MHDR maximum hourly design rate
BACT Best Available Control Technology	MMBtu Million British thermal units
BMPs Best Management Practices	MMCF million cubic feet
Btu British thermal unit	MSDS Material Safety Data Sheet
CAM Compliance Assurance Monitoring	NAAQS National Ambient Air Quality Standards
CAS Chemical Abstracts Service	NESHAPs .. National Emissions Standards for Hazardous Air Pollutants
CEMS Continuous Emission Monitor System	NO_x nitrogen oxides
CFR Code of Federal Regulations	NSPS New Source Performance Standards
CO carbon monoxide	NSR New Source Review
CO₂ carbon dioxide	PM particulate matter
CO₂e carbon dioxide equivalent	PM_{2.5} particulate matter less than 2.5 microns in aerodynamic diameter
COMS Continuous Opacity Monitoring System	PM₁₀ particulate matter less than 10 microns in aerodynamic diameter
CSR Code of State Regulations	ppm parts per million
dscf dry standard cubic feet	PSD Prevention of Significant Deterioration
EIQ Emission Inventory Questionnaire	PTE potential to emit
EP Emission Point	RACT Reasonable Available Control Technology
EPA Environmental Protection Agency	RAL Risk Assessment Level
EU Emission Unit	SCC Source Classification Code
fps feet per second	scfm standard cubic feet per minute
ft feet	SDS Safety Data Sheet
GACT Generally Available Control Technology	SIC Standard Industrial Classification
GHG Greenhouse Gas	SIP State Implementation Plan
gpm gallons per minute	SMAL Screening Model Action Levels
gr grains	SO_x sulfur oxides
GWP Global Warming Potential	SO₂ sulfur dioxide
HAP Hazardous Air Pollutant	SSM startup, shutdown, & malfunction
hr hour	tph tons per hour
hp horsepower	tpy tons per year
lb pound	VMT vehicle miles traveled
lbs/hr pounds per hour	VOC Volatile Organic Compound
MACT Maximum Achievable Control Technology	
µg/m³ micrograms per cubic meter	
m/s meters per second	