



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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**SEP 07 2016**

Mr. Terry Wilson  
Owner  
Vision Quest Mine  
14204 Highway 39  
Mt. Vernon, MO 65712

RE: New Source Review Temporary Permit Request - Project Number: 2016-08-041

Expiration Date: December 31, 2016

Temporary Permit Number: **092016-003**

Dear Mr. Wilson:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to set up a temporary processing plant for mining operations that is located in both Dent County (S6 T32N R7W) and Texas County (S1 T32N R8W). The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

Wilson Mining plans to set up a temporary generic processing plant (Vision Quest Mine) consisting of a grizzly, two primary crushers, two screens, storage bins and ten conveyors. The plant will be located at 16268 Cadle Road, Licking MO 65542. The equipment will be rated at a maximum of 300 tons per hour. Material will be taken from the sandstone ledge by loader and fed into the track mounted crusher/screen unit followed by additional screening and additional crushing. The crushed material will then be conveyed onto a stockpile. From the stockpile material is moved to storage bins before being weighed and transported off site. There will be three haul roads on the site; one from the sandstone ledge to the plant, one from the plant to the bins/scales and one for shipping purposes. Wilson Mining has decided to apply for a temporary permit with generic equipment in order to test various equipment in order to determine which equipment is suitable for producing the desired aggregate product. Although equipment specifics are unknown, the general process flow is typical of aggregate mining and includes crushing, screening, transport and storage of materials. Testing of the equipment is expected to be completed by the end of this year after which time Wilson Mining intends to apply for either a Section (5) or Section (6) permit at this site.

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 Compilation of Air Pollutant

Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition (AP-42). Emissions from the rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. Uncontrolled emission factors were used since there are no spray bars on the equipment and the moisture content is at least 0.7%. The plant will be powered by 500 horsepower diesel engine, however it meets the definition of nonroad engine as defined in 40 CFR 89.2 (1)(i). Therefore, the emissions of the engine were not included in the project emissions.

Permission to operate at this site is granted for the time period between August 30, 2016 and December 31, 2016 with a maximum potential operating time of 770 hours during the time period of 123 days. Potential emissions were calculated assuming hours of operation to be 770 hours. This voluntary limit is to ensure all emissions remain below the de minimis level. Potential emissions for this project are summarized in Table 1 below: Given that the potential emissions are well below 100 tons for each pollutant, the proposed temporary permit is granted according to the provisions of Missouri State Rule 10 CSR 10-6.060(3).

Table 1: Allowable Emissions for 770 hours of Operation Summary (tons)

PM	PM <sub>10</sub>	PM <sub>2.5</sub>
<25.00	9.21	2.49

Vision Quest Mine is authorized to construct and operate subject to the following special conditions:

1. Generic Plant Equipment Identification Requirement
  - A. Vision Quest Mine shall submit the following information to the Air Pollution Control Program's Permitting Section and the Southeast Regional Office within 15 days of actual startup.
    - 1) A master list of all equipment that will be permitted for use with the generic plant. This master list shall include at minimum the following information for each piece of equipment:
      - a) Manufacturer's name.
      - b) Model number
      - c) Serial number
      - d) Actual MHDR
      - e) Date of manufacture
      - f) Any other additional information that is necessary to uniquely identify the equipment
    - 2) A list of the core equipment that will always be utilized with the generic plant. The core equipment associated with the generic plant shall include at least one primary unit that controls the rate of the process flow (e.g., a primary crusher or primary screen).

- 3) A determination of the applicability of 40 CFR Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" for each piece of equipment indicating whether each piece of equipment is subject to Subpart OOO and justification for this determination.
    - 4) Vision Quest Mine shall notify the Air Pollution Control Program's Permitting Section and the Southeast Regional Office when new equipment is added to the master list and when core equipment is changed within 30 days of the change.
  - B. Vision Quest Mine shall maintain a list of the specific equipment currently being utilized with the generic plant. Any arrangement of the generic plant's equipment must be such that the core equipment is not bypassed in the process flow.
2. Application of Water-Documented Daily
  - A. Vision Quest Mine 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. Vision Quest Mine shall record the date and volume of water application 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. Vision Quest Mine shall keep these records with the plant for not less than five years, and the operator shall make these records available to Department of Natural Resources' personnel upon request.
3. Vision Quest Mine shall not exceed 770 hours of operation. They shall keep records of the days operated with hours of operation on site.
4. The crushers and all associated equipment shall be removed or dismantled by December 31, 2016. If equipment remains on site an application for Authority to Construct and Operate shall be submitted and permitted prior to any further operation.

Mr. Terry Wilson  
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You are still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.165 *Restriction of Emission of Odors*, 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, and 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes*. New Source Performance Standards (NSPS) apply to the installation. 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.

A copy of this letter should be kept with the portable plant and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this determination, please do not hesitate to contact Chad Stephenson at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Kyra L. Moore  
Director

KLM:csj

c: PAMS File: 2016-08-041  
Southeast Regional Office





**NOTICE:** This spreadsheet is for your use only and should be used with caution. MoDNR does not guarantee the accuracy of the information it contains. This spreadsheet is subject to continual revision and updating. It is your responsibility to be aware of the most current, accurate and complete information available. MoDNR is not responsible for errors or omissions in this spreadsheet. Submittal of the information contained in this spreadsheet (workbook) does not relieve the responsible official of the certification statement signed on the first page of the application.

For Single Plant Operation		Plant	Qualification	Limit Hours per Day	Limit Hours per Day w/ 365 days	You may need to reset the Hours per day, Days per year, if you receive an error when you "Limit..."	These cells are used to create both summary sheet emissions.	
Hours per day	24.0						Hours per day	24.0
Days per year	32.1	N/A	N/A				Days per year	32.1
Hours per year	770.9			Limit Hours per Year	Limit Hours per Year w/ 24 hr day		Hours per year	770.9

Pollutant	Potential Emissions of Process Equipment (ton/yr)	Potential Emissions including loading (ton/yr)	Allowable Emissions for 771 tons per day (ton/yr)	Permitting Thresholds	Plant-wide Composite Emissions Factor (ton/hr)
PM	123.25	284.05	25.00	25	0.22
PM <sub>10</sub>	45.07	104.65	9.23	15	0.08
PM <sub>2.5</sub>	7.21	28.27	2.48	10	0.02
SO <sub>2</sub>	-	-	-	40	-
NO <sub>2</sub>	-	-	-	40	-
VOC	-	-	-	40	-
CO	-	-	-	100	-
CH <sub>2</sub> O	-	-	-	2.00	-
Pb	-	-	-	0.01	-
HAPs	-	-	-	10	-
CO <sub>2</sub>	-	-	-	100	-
N <sub>2</sub> O	-	-	-	100	-
CH <sub>4</sub>	-	-	-	100	-
GHG <sub>mass</sub>	-	-	-	100	-
CO <sub>2</sub> eq	-	-	-	100,000	-

Maximum haul design rate (ton/hr)	300
Distance to property boundary (ft)	500

Rate of product per day	7,200.0
Tons of product per year	231,264.0

**Cell: B5**

**Comment:** Randy E. Raymond:  
= (Hours per day) \* (Days per year)

**Cell: L5**

**Comment:** Randy E. Raymond:  
= (Hours per day) \* (Days per year)

**Cell: D7**

**Comment:** Actual Emissions:  
The "\*" of hours here comes from cell B4 above.