

STATE OF MISSOURI

PERMIT BOOK



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: **102013-012**

Project Number: 2013-07-029

Installation ID: 091-0073

Parent Company: Gabel Stone Company Co., Inc.

Parent Company Address: 2092 County Road 5900, Willow Springs, MO 65793

Installation Name: Gabel Stone Co., Inc.

Installation Address: State Highway AM, Willow Springs, MO 65793

Location Information: Howell County, S15 T27N R10W

Application for Authority to Construct was made for:
Construction of two generic stationary rock crushing plants. 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.

OCT 17 2013

EFFECTIVE DATE

A handwritten signature in cursive script, appearing to read "Kya 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.

Page No.	3
Permit No.	
Project No.	2013-07-029

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."

Plant A

Site ID Number: 091-0073

Site Name: AM Quarry

Site Address: State Highway AM, Willow Springs, MO 65793

Site County: Howell, S15 T27N R10W

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permits 112005-001B, 072007-002A, 072007-002B, and 112005-001 from the Air Pollution Control Program.
2. **Generic Plant Designation and Maximum Combined Hourly Design Rate**
Gabel Stone Co., Inc. has been designated to be a Generic Plant Operation. The combined MHDR each of the following generic equipment types shall not exceed the rates and numbers listed in Table 1.

Table 1: Generic Equipment

Equipment Type	MHDR of each piece of equipment	Maximum Number of Units
Primary Unit(s) (Primary Crusher) Jaw Plant	300 tons per hour	1
Scalping Screen 4 x 10	300 tons per hour	1
Roll Plant	300 tons per hour	1
Screening Plant	300 tons per hour	1
Surge Bins	300 tons per hour	7
Conveyors	300 tons per hour	7
Diesel Engine	240 hp	2
Diesel Engine	120 hp	1

3. **Generic Plant Equipment Identification Requirement**
 - A. Gabel Stone Co., Inc. 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

Page No.	4
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

- 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) Gabel Stone Co., Inc. 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. Gabel Stone Co., Inc. 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.
4. **Equipment Identification Requirement**
Gabel Stone Co., Inc. 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.
 5. **Best Management Practices Requirement**
Gabel Stone Co., Inc. 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.
 6. **Annual Emission Limit**
 - A. Gabel Stone Co., Inc. shall emit less than 40.0 tons of NOx in any 12-month period from the entire installation.
 - B. Gabel Stone Co., Inc. shall demonstrate compliance with Special Condition 6.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

Page No.	5
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

7. **Moisture Content Testing Requirement**
 - A. Gabel Stone Co., Inc. 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 Gabel Stone Co., Inc. 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 7.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceeded the limit, Gabel Stone Co., Inc. 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. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
 - G. In lieu of testing, Gabel Stone Co., Inc. may obtain test results that demonstrate compliance with the moisture content in Special Condition 7.A from the supplier of the aggregate.
8. **Minimum Distance to Property Boundary Requirement**

The primary emission point (EP3) shall be located at least 1700 feet from the nearest property boundary.
9. **Primary Equipment Requirement**

Gabel Stone Co., Inc. shall process all rock through the primary crusher (EP3). Bypassing the primary crusher is prohibited.

Page No.	6
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

10. Record Keeping Requirement

Gabel Stone Co., Inc. 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.

11. Reporting Requirement

Gabel Stone Co., Inc. 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.

Page No.	7
Permit No.	
Project No.	2013-07-029

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."

Plant B

Site ID Number: 091-0073

Site Name: AM Quarry

Site Address: State Highway AM, Willow Springs, MO 65793

Site County: Howell, S15 T27N R10W

1. Superseding Condition

The conditions of this permit supersede all special conditions found in the previously issued construction permits 112005-001B, 072007-002A, 072007-002B, and 112005-001 from the Air Pollution Control Program.

2. Generic Plant Designation and Maximum Combined Hourly Design Rate

Gabel Stone Co., Inc. has been designated to be a Generic Plant Operation. The combined MHDR each of the following generic equipment types shall not exceed the rates and numbers listed in Table 2.

Table 2: Generic Equipment

Equipment Type	MHDR of each piece of equipment	Maximum Number of Units
Primary Unit(s) (Primary Crusher) Jaw Plant	300 tons per hour	1
Scalping Screen 4 x 10	300 tons per hour	1
Roll Plant	300 tons per hour	1
Screening Plant	300 tons per hour	1
Surge Bins	300 tons per hour	7
Conveyors	300 tons per hour	7
Diesel Engine	240 hp	2
Diesel Engine	120 hp	1

3. Generic Plant Equipment Identification Requirement

A. Gabel Stone Co., Inc. 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.

Page No.	8
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

- 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) Gabel Stone Co., Inc. 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. Gabel Stone Co., Inc. 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.
4. **Equipment Identification Requirement**
Gabel Stone Co., Inc. 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.
 5. **Best Management Practices Requirement**
Gabel Stone Co., Inc. 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.
 6. **Annual Emission Limit**
 - A. Gabel Stone Co., Inc. shall emit less than 40.0 tons of NOx in any 12-month period from the entire installation.

Page No.	9
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

- B. Gabel Stone Co., Inc. shall demonstrate compliance with Special Condition 6.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
7. Moisture Content Testing Requirement
- A. Gabel Stone Co., Inc. 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 Gabel Stone Co., Inc. 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 7.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, Gabel Stone Co., Inc. 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. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
 - G. In lieu of testing, Gabel Stone Co., Inc. may obtain test results that demonstrate compliance with the moisture content in Special Condition 7.A from the supplier of the aggregate.
8. Minimum Distance to Property Boundary Requirement
- The primary emission point (EP3) shall be located at least 1700 feet from the nearest property boundary.

Page No.	10
Permit No.	
Project No.	2013-07-029

SPECIAL CONDITIONS:

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

9. Primary Equipment Requirement
Gabel Stone Co., Inc. shall process all rock through the primary crusher (EP3).
Bypassing the primary crusher is prohibited.

10. Record Keeping Requirement
Gabel Stone Co., Inc. 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.

11. Reporting Requirement
Gabel Stone Co., Inc. 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 (6) REVIEW

Project Number: 2013-07-029
Installation ID Number: 091-0073
Permit Number:

Gabel Stone Co., Inc.
State Highway AM
Willow Springs, MO 65793

Complete: July 8, 2013

Parent Company:
Gabel Stone Company Co., Inc.
2092 County Road 5900
Willow Springs, MO 65793

Howell County, S15 T27N R10W

PROJECT DESCRIPTION

Gable Stone Co., Inc. has operated at the AM Quarry and the 5900 Quarry using portable equipment. Gable Stone Co., Inc. has requested to construct two separate generic rock crushing plants (Plants A and B) at the AM Quarry from their inventory of equipment. The two plants have identical layouts consisting of a primary crusher, a scalping screen, a roll plant (secondary crusher), a screening plant, seven bins, seven conveyors, two 240 hp diesel engines and one 120 hp diesel engine. The configuration may vary between each plant, but the number of pieces of equipment will not exceed the amount listed in Table 1 and Table 2. Various pieces of equipment have been permitted to this site and will become part of the master list of equipment that will be available for these two generic stationary crushing plants. The MHDR of each plant is 300 tons per hour. The plants will operate in parallel, therefore the MHDR will double when both are operating at this site. Gable Stone has also submitted an Application for Authority to Construct for two stationary generic rock crushing plant at the 5900 Quarry site. This will allow Gable Stone the ability to operate both plants at either site.

At the AM Quarry, Gable Stone Co., Inc. has allotted $74 \mu\text{g}/\text{m}^3$ of ambient impact for separate owner plants. When the two generic stationary rock crushing plants are operating simultaneously at the AM Quarry, their emissions will not exceed the $56 \mu\text{g}/\text{m}^3$.

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 Howell County, an attainment area for all criteria pollutants.

This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

TABLES

The following permits have been issued to Gabel Stone Co., Inc. from the Air Pollution Control Program.

Table 4: Permit History for AM Quarry

Permit Number	Description
112005-001B	Sec. 4 Relocation to New Site
072007-002A	Sec. 4 Relocation to New Site
072007-002B	Colocation changes
112005-001	The installation of a new portable rock-crushing plant

Table 5 below summarizes the emissions of this project. The existing actual emissions were taken from the 2012 EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year).

Table 5: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	^a Existing Actual Emissions (2012 EIQ)	^b Potential Emissions of 1 Plant	^c Potential Emission of 2 Plants	^d Installation Conditioned Potential Emissions
PM	25.0	N/A	51.84	103.68	30.56
PM ₁₀	15.0	1.61	23.50	47.00	13.85
PM _{2.5}	10.0	0.53	13.52	27.04	7.97
SO _x	40.0	0.39	3.77	7.54	2.22
NO _x	40.0	5.98	67.86	135.72	<40.0
VOC	40.0	0.49	7.37	14.73	4.34
CO	100.0	1.29	21.07	42.13	12.42
Total HAPs	25.0	0.0	0.09	0.17	0.05

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

^a2012 EIQ emissions are from the pit haul road, shipping haul road and diesel engines. Portable plants have provided the crushing operations.

^bIncludes site specific haul road and storage pile emissions for one of the stationary generic plants.

^cTotal emissions of the two stationary plants at AM Quarry.

^dConditioned emissions are based on a voluntary NO_x limit. Installation Conditioned Potential Emissions are the conditioned potential emissions of the two plants combined.

Table 6 summarizes the ambient air quality impact analysis for Plant A and Plant B. The maximum modeled impact is the impact of each pollutant when the plant is operating continuously. The 24-hour limited impacts and daily limit are based on compliance with the NAAQS for PM₁₀.

Table 6: Ambient Air Quality Impact Analysis

Pollutant	NAAQS/RAL ($\mu\text{g}/\text{m}^3$)	Averaging Time	^a Maximum Modeled Impact ($\mu\text{g}/\text{m}^3$)	Limited Impact ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	^b Daily Limit (tons/day)
^c PM ₁₀ (Plant A)	150.0	24-hour	27.87	N/A	20.0	N/A
^c PM ₁₀ (Plant B)	150.0	24-hour	27.87	N/A	20.0	N/A
^d PM ₁₀ (separate)	150.0	24-hour	N/A	56.0	94.0	N/A

^aModeled impact at maximum capacity with controls

^bIndirect limit based on compliance with NAAQS.

^cSolitary operation or operation with other plants that are owned by Gabel Stone Company Co., Inc.

^dOperation with other plants that are not owned by Gabel Stone Company Co., Inc.

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 rock-crushing equipment were 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 the diesel engines were calculated using emission factors from AP-42 Section 3.3 Gasoline and Diesel Industrial Engines,” October 1996.

Emissions from haul roads and vehicular activity areas were 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 40% control efficiency for PM_{2.5} were applied to the emission calculations for the use of BMPs. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. 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.”

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 4. The Air Pollution Control Program requires an AAQIA of PM₁₀ for all asphalt, concrete and rock-crushing plants regardless of the level of PM₁₀ emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL).

The AAQIA was performed using the Air Pollution Control Program's generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS or RAL for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant's production is limited to ensure compliance with the standard.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of $20 \mu\text{g}/\text{m}^3$ of PM_{10} in accordance with the Air Pollution Control Program's BMPs interim policy.

OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Gabel Stone Co., Inc. shall demonstrate compliance with the NAAQS.

- When one plant is located at AM Quarry, Gabel Stone Company Co., Inc. will not have to calculate the daily impact of the plant because the total impact of the plant does not exceed the NAAQS.
- When both generic plants that are owned by Gabel Stone Company Co., Inc., which are referred to as same owner plants, are located at AM Quarry, Gabel Stone Company Co., Inc. will not have to calculate the daily impact of each plant because the total impact of all plants does not exceed the NAAQS.
- When plants that are not owned by Gabel Stone Company Co., Inc., which are referred to as separate owner plants, are located at the site, Gabel Stone Company Co., Inc. must account for the impacts of the separate plants as a background concentration and add it to the total impact of all plants owned by Gabel Stone Company Co., Inc. that are operating at the site. This total is limited as to not exceed the NAAQS. Gabel Stone Company Co., Inc. will limit the total impact of all plants they own and operate at the site to $56 \mu\text{g}/\text{m}^3$ when any plants they do not own are located at the site. Gabel Stone Co., Inc. is not permitted to operate with any plant that is not owned by Gabel Stone Company Co., Inc. that has a separate owner background greater than $74 \mu\text{g}/\text{m}^3$. During this scenario, Gabel Stone Company Co., Inc. will not have to calculate their daily impact of the generic plants because the total impact of two plants does not exceed $56 \mu\text{g}/\text{m}^3$, therefore does not exceed the NAAQS when operating with separate owner plants that are limited to $74 \mu\text{g}/\text{m}^3$.

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 PM₁₀ are conditioned below de minimis levels. Potential emissions of PM are the above de minimis level but below the major source level.

APPLICABLE REQUIREMENTS

Gabel Stone Co., Inc. 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.
- A Basic Operating Permit application is required for this installation within 30 days of commencement of operations.
- *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 OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.
- 40 CFR 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" applies to the diesel engines on the generic equipment list that were manufactured after 04/01/2006 or modified/reconstructed after 7/11/2005.
- 40 CFR Part 63 Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" applies to the 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 (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Kathy Kolb
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 July 1, 2013, received July 8, 2013, designating Gabel Stone Company Co., Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

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 portable 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 emissions¹ 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	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
EQ	Emission Inventory Questionnaire	SCC	Source Classification Code
EP	Emission Point	scfm	standard cubic feet per minute
EPA	Environmental Protection Agency	SIC	Standard Industrial Classification
EU	Emission Unit	SIP	State Implementation Plan
fps	feet per second	SMAL	Screening Model Action Levels
ft	feet	SO_x	sulfur oxides
GACT	Generally Available Control Technology	SO₂	sulfur dioxide
GHG	Greenhouse Gas	tph	tons per hour
gpm	gallons per minute	tpy	tons per year
gr	grains	VMT	vehicle miles traveled
GWP	Global Warming Potential	VOC	Volatile Organic Compound
HAP	Hazardous Air Pollutant		
hr	hour		
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		

Mr. Gary Gabel
President
Gabel Stone Co., Inc.
2092 County Road 5900
Willow Springs, MO 65793

RE: New Source Review Permit - Project Number: 2013-07-029

Dear Mr. Gabel:

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 new 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, please do not hesitate to contact Kathy Kolb, 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:kk1

Enclosures

c: Southeast Regional Office
PAMS File: 2013-07-029

Permit Number: