PERMIT BOOK

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 052009-011 Project Number: 2007-04-100
215-0028

Parent Company: Mansfield Lime & Stone Quarry, Inc.

Parent Company Address: 1726 Quarry Road, Mansfield, MO 65702

Installation Name: Mountain Grove Quarry

Installation Address: 2504 Limestone Drive, Mountain Grove, MO 65711

Location Information: Texas County, S2, T28N, R12W

Application for Authority to Construct was made for:
The modification of an existing rock-crushing plant (formerly PORT-0103) to allow concurrent operations. Best Management Practices will be used to control fugitive emissions from haul roads and storage piles. The rock crushing plant has a maximum hourly design rate (MHDR) of 400 tons per hour (tph). 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.

MAY 15 2009

EFFECTIVE DATE

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/18 months 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/18 months 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 devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 <u>and</u> operate your air contaminant sources(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.

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); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Best Management Practices
   Mansfield Lime & Stone Quarry, Inc. shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.

2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM_{10})
   A. The operator(s) for Mansfield Lime & Stone Quarry, Inc.'s rock-crushing plant (215-0066) shall ensure, while operating at this site, that the ambient impact of PM_{10} at or beyond the nearest property boundary does not exceed 150 µg/m^3 in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
   B. The rock-crushing plant is permitted to operate under four (4) scenarios: Solitary, concurrent (same owner), concurrent (separate owners), and concurrent (same **and** separate owners) operations. The total daily ambient impact of PM_{10} at this site shall include the combined impact of the rock-crushing plant and any ambient background concentration from installations or equipment located on the same site as the rock-crushing plant.
   C. To demonstrate compliance during all operating scenarios, the operator(s) shall maintain a daily record of material processed and the resulting daily PM_{10} ambient impact. Attachment A-1, or other equivalent form(s), shall be used for this purpose during solitary and concurrent (same owner) operations. Attachment A-2, or other equivalent form(s), shall be used for this purpose during concurrent (separate owners) and concurrent (same **and** separate owners) operations.

3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM_{10})
   A. The operator(s) shall ensure that Mansfield Lime & Stone Quarry, Inc.'s rock-crushing plant emits less than 15 tons of PM_{10} into the atmosphere in any 12-month period.
   B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM_{10}. Attachment B, *Monthly PM_{10} Emissions Tracking Record,* or other equivalent form(s), shall be used for this purpose.

4. Annual Emission Limit of Nitrogen Oxides (NO_x)
   A. The operator(s) shall ensure that Mansfield Lime & Stone Quarry, Inc.'s rock-crushing plant emits less than 40 tons of NO_x into the atmosphere in any 12-month period.
   B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM_{10}. Attachment C, *Monthly NO_x Emissions Tracking Record,* or other equivalent form(s), shall be used for this purpose.

5. Moisture Content Testing Requirement for Inherent Moisture Content
   A. Mansfield Lime & Stone Quarry, Inc. shall conduct testing to verify that the inherent moisture content of the processed rock is greater than or equal to 1.5 wt.%.
   B. The testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566),* EPA AP-42 Appendix C.2., or other methods approved by the Director.
   C. The first test shall be performed no later than forty-five (45) days after receiving this permit. After the first test, testing shall be conducted once each year between the months of June and September. If the moisture content of the processed rock is greater than or equal to 1.5 wt.% for three consecutive years, then no further testing will be necessary.

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

D. The operators shall obtain test samples immediately after processing by the primary crusher and after load-in to bins or storage piles. During the sample processing run only, any spray devices shall be turned off during the processing from which test samples are obtained.

E. A written analytical report of each test shall be kept onsite or at Mansfield Lime and Stone Quarry's main office within thirty (30) days after the completion of the test. The report shall include the weights of the samples before and after drying, the calculated moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test.

6. Performance Testing for New Source Performance Standards (NSPS)

A. Mansfield Lime & Stone Quarry, Inc. shall submit the enclosed testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart "OOO". Mansfield Lime & Stone Quarry, Inc. shall contact the Enforcement section to obtain all requirements for testing, and the plan must be submitted to the 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 Enforcement section no later than 30 days after completion of any required testing.

7. Restriction on Process Configuration of Primary Emission Point(s)
The maximum hourly design rate of the plant is equal to the sum of the design rate(s) of the primary emission point(s). Mansfield Lime & Stone Quarry, Inc. has designated the following unit(s) as the primary emission point(s) of the rock-crushing plant: primary crusher (EP5). Bypassing the primary emission point(s) for processing is prohibited.

8. Restriction on Minimum Distance to Nearest Property Boundary
The primary emission point of the rock-crushing plant, which is the primary crusher (EP5), shall be located at least 400 feet from the nearest property boundary whenever it is operating at this site.

9. Record Keeping Requirement
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

10. Reporting Requirement
The operator(s) shall report to the Air Pollution Control Program (APCP) Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.

11. Superseding Condition
The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (1293-018) from the Air Pollution Control Program.

TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

PROJECT DESCRIPTION

The installation applied for this permit to allow the use of Best Management Practice to control fugitive emissions from haul roads and storage piles and to allow concurrent operations with other plants. Rock, composed of non-metallic minerals, is drilled/blasted, loaded into haul trucks, and transported to processing. Rock is processed through feeder(s), crusher(s), screen(s), conveyor(s), and bin(s). Processing equipment is powered with diesel engine(s). The emission points are listed in the attached spreadsheet summary. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2]. The installation is located in Texas County, an attainment area for all criteria air pollutants.

The rock-crushing plant is permitted to operate under four (4) scenarios: Solitary, concurrent (same owner), concurrent (separate owners), and concurrent (same **and** separate owners) operations. The operations are defined as follows.

- Solitary Operations: Operations when the stationary rock-crushing plant is at the site by itself.
- Concurrent (Same Owner) Operations: Operations when other plants owned by Mansfield Lime and Stone Quarry are located at this site at the same time.
- Concurrent (Separate Owners) Operations: Operations when other plants owned by other companies are located at this site at the same time.
- Concurrent (Same **and** Separate Owners) Operations: Operations when other plants owned by Mansfield Lime and Stone Quarry **and** other plants owned by other companies are located at the site at the same time.

The installation was previously permitted as a portable plant, PORT-0103, (Permit #1293-018, Project #PORT-0103-005). The plant was changed into a stationary plant when it applied for an operating permit. A permit (#082000-016, Project #2000-05-064) was issued to a portable 30 tph screening plant to operate at this site in 2000. This plant has been in storage and is no longer in operation.

Table 1. Other Construction Permits Issued for Site 229-0028

Permit Number	Completed	Description
1293-018	12/29/1993	Construction of new crushing plant.
082000-016	8/18/2000	Construction of a new portable screening plant.

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM_{10} and NO_x. The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section “Permit Documents”. The rock-crushing plant has agreed to limit the conditioned potential of all criteria pollutants below the *de minimis* levels so an increment analysis would not be required. Based on the conditioned potential emissions, the operation is considered a *de minimis* source under 10 CSR 10-6.060 section (5).

The rock-crushing plant has an annual emission limit of less than 15 tons of PM_{10} and 40 tons of NO_x in any 12-month period. A composite PM_{10} emission factor and a composite NO_x emission factor were developed for the rock-crushing plant. The composite emission factors are incorporated into the monthly record keeping tables, Attachment B and Attachment C. Diesel engines/generators will be used at the site and they can only be used for the purpose of powering equipment for asphalt production.

Table 2: Emissions Summary (tons per year)

Air Pollutant	Regulatory *De Minimis* Levels	Existing Potential Emissions	Existing Actual Emissions (2006 EIQ)	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
PM_{10}	15.0	N/A	3.08	71.05	<15.00	0.04056
SOx	40.0	N/A	N/D	12.46	2.63	N/A
NOx	40.0	N/A	N/D	189.47	<40.00	0.1081
VOC	40.0	N/A	N/D	15.47	3.27	N/A
CO	100.0	N/A	N/D	40.82	8.62	N/A
HAPs	10.0/25.0	N/A	N/D	0.17	0.04	N/A

Note: N/A = Not Applicable; N/D = Not Determined
* PM_{10} and NO_x conditioned potential based on limit in permit conditions. Other pollutants proportionately reduced according to NO_x conditioned potential.

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 450 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m^3 of PM_{10} at or beyond the nearest property boundary in any single 24-hour period. For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m^3 of PM_{10}. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m^3 of PM_{10} at or beyond the nearest property boundary. The screening tools were used to develop an ambient impact factor for the rock-crushing plant. This ambient impact factor is incorporated into the daily record keeping tables, Attachment A-1 and Attachment A-2.

For each of the four (4) operating scenarios, the following record keeping procedure applies.

- Solitary Operations: The stationary rock-crushing plant must keep a record of its daily PM_{10} ambient impact to ensure that the 130 µg/m^3 limit is not exceeded. Attachment A-1, or equivalent forms, shall be used for this purpose.
- Concurrent (Same Owner) Operations: The stationary rock-crushing plant must keep a record of its own daily PM_{10} ambient impact **and** the daily PM_{10} ambient impact of all other plants to ensure that the combined daily PM_{10} ambient impact of all plants does not exceed 130 µg/m^3. Attachment A-1, or equivalent forms, shall be used for this purpose.
- Concurrent (Separate Owners) Operations: The plants owned by other companies can only be located at the site if they have been held in their permits to a combined PM_{10} ambient impact of 58.07 µg/m^3. The stationary rock-crushing plant must keep a record of its own daily PM_{10} ambient impact to ensure that it does not exceed 71.93 µg/m^3. Attachment A-2, or equivalent forms, shall be used for this purpose.
- Concurrent (Same **and** Separate Owners) Operations: The plants owned by other companies can only be located at site if they have been held in their permits to a combined PM_{10} ambient impact of 58.07 µg/m^3. The stationary rock-crushing plant must keep a record of its own daily PM_{10} ambient impact **and** also the daily PM_{10} ambient impact of other plants owned by Mansfield Lime and Stone Quarry to ensure that the combined daily PM_{10} ambient impact of these plants does not exceed 71.93 µg/m^3. Attachment A-2, or equivalent forms, shall be used for this purpose.

Table 3: Ambient Air Quality Impact Analysis of PM_{10}, 24-Hour Averaging Time

Operation	Ambient Impact Factor ($\mu g/m^3$ton)	Modeled Impact ($\mu g/m^3$)	*Background ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	Daily Production Limit (tons)
1. Solitary	0.02819	130.00	20.00	150.00	4,612
2. Concurrent (Same Owner)	0.02819	**	20.00	150.00	**
3. Concurrent (Separate Owners)	0.02599	71.93	78.07	150.00	2,767
4. Concurrent, Separate Owners	0.02599	**	78.07	150.00	**

* Background PM_{10} level of 20.00 $\mu g/m^3$ from haul roads and stockpiles and 58.07 $\mu g/m^3$ from the operation of plants owned by other companies.
** The operator(s) must balance production among concurrently operating plants such that NAAQS is not exceeded. Ambient impact from other plants owned by other companies can be obtained from the operators of these plants.

APPLICABLE REQUIREMENTS

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- An Operating Permit application is required for this installation within 30 days of equipment startup.
- *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 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- 40 CFR Part 60 Subpart "OOO", *Standards of Performance for Nonmetallic Mineral Processing Plants*, of the New Source Performance Standards (NSPS)
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed 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*, I recommend this permit be granted with special conditions.

_____ _____

Chia-Wei Young Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Mansfield Lime & Stone Quarry, Inc. as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition.*
- Noyes Data Corp. book, Orlemann, et al.1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southwest Regional Office Site Survey.
- Best Management Practices.

Attachment A-1: Daily Ambient PM_{10} Impact Tracking Record
Mountain Grove Quarry, 215-0066– Rock-Crushing Plant
For Use During Solitary and Concurrent (Same Owner) Operations

Project Number: 2007-04-100
County, CSTR: Texas County (S2, T28N, R12W)
Primary Unit Size: 400 tph
Distance to Nearest Property Boundary: 400 feet

This sheet covers the period from _____ to _____ (Month, Day, Year) *(Copy this sheet as needed.)*

Date	Mountain Grove Quarry 215-0066 Project # 2007-04-100			Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:		
	Daily Production (tons)	Ambient Impact Factor ($\mu g/m^3$ton)	[1]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)	[3]Back-ground PM_{10} Level ($\mu g/m^3$)	[4]TOTAL PM_{10} Level ($\mu g/m^3$)
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
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		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	
		0.02819					20.00	

Note 1: The Daily PM_{10} Impact ($\mu g/m^3$) of the stationary rock-crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.
Note 2: The Daily PM_{10} Impact ($\mu g/m^3$) of other plants owned by Mansfield Lime and Stone Quarry can be obtained from the operators of these plants. If operating under solitary operations, a value of zero (0) shall be entered.
Note 3: Background PM_{10} Level ($\mu g/m^3$) is from Haul Roads and Stockpiles.
Note 4: The TOTAL PM_{10} Level ($\mu g/m^3$) is calculated by summing the Daily PM_{10} Ambient Impact(s) and the Background PM_{10} Level. A TOTAL PM_{10} Level of less than 150 $\mu g/m^3$ in any 24-hour period indicates compliance.

Attachment A-2: Daily Ambient PM_{10} Impact Tracking Record
Mountain Grove Quarry,215-0066 – Rock-Crushing Plant
For Use During Concurrent (Separate Owners) and Concurrent (Same and Separate Owners) Operations

Project Number: 2007-04-100
County, CSTR: Texas County (S2, T28N, R12W)
Primary Unit Size: 400 tph
Distance to Nearest Property Boundary: 400 feet

This sheet covers the period from _____ to _____ (Month, Day, Year) *(Copy this sheet as needed.)*

Date	Mountain Grove Quarry 215-0066 Project # 2007-04-100			Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:	Plant Name: Plant ID: Permit #:	[3]Back-ground PM_{10} Level ($\mu g/m^3$)	[4]TOTAL PM_{10} Level ($\mu g/m^3$)
	Daily Production (tons)	Ambient Impact Factor ($\mu g/m^3$ton)	[1]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)	[2]Daily PM_{10} Impact ($\mu g/m^3$)		
		0.02599					78.07	
		0.02599					78.07	
		0.02599					78.07	
		0.02599					78.07	
		0.02599					78.07	
		0.02599					78.07	
		0.02599					78.07	
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		0.02599					78.07	

Note 1: The Daily PM_{10} Impact ($\mu g/m^3$) of the stationary rock-crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.
Note 2: The Daily PM_{10} Impact ($\mu g/m^3$) of other plants owned by Mansfield Lime and Stone Quarry can be obtained from the operators of these plants. If operating under concurrent (separate owners) operations, a value of zero (0) shall be entered.
Note 3: Background PM_{10} Level ($\mu g/m^3$) is from Haul Roads and Stockpiles and from the operations of plants owned by other companies.
Note 4: The TOTAL PM_{10} Level ($\mu g/m^3$) is calculated by summing the Daily PM_{10} Ambient Impact(s) and the Background PM_{10} Level. A TOTAL PM_{10} Level of less than 150 $\mu g/m^3$ in any 24-hour period indicates compliance.

Attachment B: Monthly PM_{10} Emissions Tracking Record
Mountain Grove Quarry, 215-0066 – Rock-Crushing Plant

Project Number: 2007-04-100
County, CSTR: Texas County (S2, T28N, R12W)
Primary Unit Size: 400 tph
Distance to Nearest Property Boundary: 400 feet

This sheet covers the period from _____ to _____ (Month, Day, Year)
(Copy this sheet as needed.)

Month	Monthly Production (tons)	Composite PM_{10} Emission Factor (lbs/ton)	[1]Monthly PM_{10} Emissions (lbs)	[2]Monthly PM_{10} Emissions (tons)	[3]12-Month PM_{10} Emissions (tons/year)
		0.04056			
		0.04056			
		0.04056			
		0.04056			
		0.04056			
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		0.04056			

Note 1: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).
Note 2: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.
Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than **15** tons in any consecutive 12-month period indicates compliance.

Attachment C: Monthly NO_x Emissions Tracking Record
Mountain Grove Quarry, 215-0066 – Rock-Crushing Plant

Project Number: 2007-04-100
County, CSTR: Texas County (S2, T28N, R12W)
Primary Unit Size: 400 tph
Distance to Nearest Property Boundary: 400 feet

This sheet covers the period from _____ to _____ (Month, Day, Year)
(Copy this sheet as needed.)

Month	Monthly Production (tons)	Composite NO_x Emission Factor (lbs/ton)	[1]Monthly NO_x Emissions (lbs)	[2]Monthly NO_x Emissions (tons)	[3]12-Month NO_x Emissions (tons/year)
		0.01081			
		0.01081			
		0.01081			
		0.01081			
		0.01081			
		0.01081			
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		0.01081			

Note 1: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).
Note 2: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.
Note 3: The 12-Month Emissions (tons/year) are a rolling total calculated by adding the Month's Emissions (tons) to the Monthly Emissions (tons) of the previous eleven (11) months. A total of less than **40** tons in any consecutive 12-month period indicates compliance.

Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

For Haul Roads:

1. Pavement of Road Surfaces –
   - A. The operator(s) may pave all or any portion of the haul roads with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve "Control of Fugitive Emissions[1]" while the plant is operating.
   - B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
   - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
   - C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
   - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
   - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
   - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   - D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

[1] For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

For Vehicle Activity Areas around Open Storage Piles:

1. Pavement of Stockpile Vehicle Activity Surfaces –
   A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as asphalt, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
   B. Maintenance and/or 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(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
   A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
   B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator(s) 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(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
   A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
   B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
   C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
   D. 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. The operator(s) shall record a brief description of such events in the same log as the documented watering.
   E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Don Wilson
Jr. Vice President
Mansfield Lime & Stone Quarry, Inc.
1726 Quarry Road
Mansfield, MO 65702

RE: New Source Review Permit - Project Number: 2007-04-100

Dear Mr. Wilson:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit, the New Source Review application submitted for project 2007-04-099, and your amended operating permit, if required, is necessary for continued compliance. Please review your amended operating permit, as it will contain all applicable requirements for your rock-crushing plant, including any special conditions from your New Source Review permit.

The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale, P.E.
New Source Review Unit Chief

KBH:cwyl

Enclosures

c: Southwest Regional Office
PAMS File: 2007-04-100
Permit Number: