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: 082007-005 Project Number: 2007-04-102 PORT-0595
Owner: Mansfield Lime and Stone Quarry, Inc.
Owner’s Address: 1726 Quarry Road, Mansfield, MO 65704
Installation Name: Mansfield Lime and Stone Quarry, Inc. Portable Plant #2
Installation Address: 1726 Quarry Road, Mansfield, MO 65704
Location Information: Wright County, S14, T28N, R15W

Application for Authority to Construct was made for:

The installation of a new, generic, portable rock-crushing plant. The portable rock crushing plant has a maximum hourly design rate (MHDR) of 400 tons per hour (tph). Best Management Practices will be used to control emissions from haul roads and storage piles. 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 (listed as attachments starting on page 2) are applicable to this permit.

AUG - 6 2007
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 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. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(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 as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, 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 Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.
GENERAL SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted 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, Subpart OOO of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Relocation of Portable Rock Crushing Plant
   A. Mansfield Lime and Stone Quarry, Inc. Portable Plant #2 (PORT-0595) shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
   B. A complete “Portable Source Relocation Request” application must be submitted to the Air Pollution Control Program prior to any relocation of PORT-0595.
      1.) If PORT-0595 is moving to a site previously permitted, and if there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
      2.) If PORT-0595 is moving to a new site, or if there are other plants or equipment at a previously permitted site that has not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.

2. Generic Plant Designation and Maximum Combined Hourly Design Rate
   PORT-0595 has been designated to be a Generic Plant Operation. The combined Maximum Hourly Design Rate (MHDR) for the primary unit and each of the following generic equipment types shall not exceed the maximum installation capacities listed below at any time the installation is in operation.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Maximum Combined Hourly Design Rate</th>
<th>Maximum Number of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Unit (Primary Crusher)</td>
<td>400 tons per hour</td>
<td>1</td>
</tr>
<tr>
<td>Feeder/Grizzly</td>
<td>500 tons per hour</td>
<td>2</td>
</tr>
<tr>
<td>Crushers including primary crusher</td>
<td>800 tons per hour</td>
<td>2</td>
</tr>
<tr>
<td>Conveyors, Stackers, Bins</td>
<td>11,275 tons per hour</td>
<td>57</td>
</tr>
<tr>
<td>Screen(s)</td>
<td>1,300 tons per hour</td>
<td>4</td>
</tr>
</tbody>
</table>

3. Generic Plant Equipment Identification Requirement
   A. Within fifteen (15) days of actual startup, PORT-0595 shall submit to the Air Pollution Control Program’s Permitting Section, and any Regional Offices in who’s jurisdiction PORT-0595 is permitted to operate, the following information:
      1.) A Master List of all equipment that will be permitted for use with PORT-0595. This master list shall include the following information for each piece of equipment: the manufacturer’s name, the model number, the serial number, the actual MHDR, the date of manufacture, any company-assigned equipment number, and any other additional information such as sizes and/or dimensions that is necessary to uniquely identify all of the equipment.
      2.) A list of the core equipment that will always be utilized with PORT-0595. The core equipment associated with the generic plant shall include at least one (1) primary unit. Core equipment items are rate-controlling components of the process flow (e.g., primary crusher and/or primary screen). The maximum hourly design rate of the generic plant is defined to be the sum of the MHDR(s) of the core equipment. Any arrangement of the generic plant’s equipment must be such that the core equipment is not bypassed in the process flow.
      3.) A determination on the applicability of 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, for each piece of equipment. PORT-0595 shall indicate whether or not each piece of equipment is subject to Subpart OOO and provide the justification for this applicability determination.
GENERAL SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

4.) PORT-0595 shall submit notification to the Air Pollution Control Program and the Regional Office if the core equipment is changed and/or if new equipment is added to the supplemental equipment list.

B. PORT-0595 shall provide and maintain suitable, 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. These identification numbers must be submitted to the Air Pollution Control Program and the Regional Office no later than fifteen (15) days after start-up of the generic plant.

C. PORT-0595 shall at all times maintain a list of the specific equipment currently being utilized with the generic rock crushing plant and shall make this list of currently used equipment available to any Missouri Department of Natural Resources' personnel upon request.

4. Record Keeping Requirement
PORT-0595 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.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Table 1: Permitted Sites

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Site Name</th>
<th>Physical Address</th>
<th>County</th>
<th>CSTR</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>76 Quarry</td>
<td>3363 East Highway 76 Kirbyville, MO 65679</td>
<td>Taney S1, T22N, R21W</td>
<td>450 feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mansfield</td>
<td>1726 Quarry Road Mansfield, MO 65704</td>
<td>Wright S14, T28N, R15W</td>
<td>450 feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mountain Grove</td>
<td>2504 Limestone Drive Mountain Grove, MO 65711</td>
<td>Texas S2, T28N, R12W</td>
<td>450 feet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mansfield Lime and Stone is permitted to operate at the sites listed in Table 1 in accordance with the following site-specific special conditions:

1. Best Management Practices
   Mansfield Lime and Stone Quarry, Inc. Portable Plant #2 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. Mansfield Lime and Stone Quarry, Inc. Portable Plant #2 (PORT-0595) 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$^2$ in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
   B. The total daily ambient impact of PM$_{10}$ at this site shall include the combined impact of the portable rock crushing plant and any ambient background concentration from installations or equipment located on the same site as the portable rock crushing plant.
   C. To demonstrate compliance during solitary and concurrent, same-owner operation, the operator(s) shall maintain a daily record of material processed. Attachment A, Daily Ambient PM$_{10}$ Impact Tracking Record for Solitary and Same-Owner Operation, or other equivalent form(s), will be used for this purpose.
   D. To demonstrate compliance during concurrent, separate-owner operation and concurrent, same-and-separate-owner operation, the operator(s) shall maintain a daily record of material processed. Attachment B, Daily Ambient PM$_{10}$ Impact Tracking Record for Separate-Owner Operation, or other equivalent form(s), will be used for this purpose.

3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM$_{10}$)
   A. PORT-0595 shall emit less than 50 tons of PM$_{10}$ into the atmosphere in any 12-month period.
   B. To demonstrate compliance, PORT-0595 shall maintain a daily record of material processed and PM$_{10}$. Attachment C, Monthly PM$_{10}$ Emissions Tracking Record, or other equivalent form(s), will be used for this purpose.

4. Annual Emission Limit of Nitrogen Oxides (NO$_x$)
   A. PORT-0595 shall emit less than 40 tons of NO$_x$ into the atmosphere in any 12-month period.
   B. To demonstrate compliance, PORT-0595 shall maintain a monthly record of material processed and NO$_x$. Attachment D, Monthly NO$_x$ Emissions Tracking Record, or other equivalent forms, will be used for this purpose.

5. Moisture Content Testing Requirement for Inherent Moisture Content
   A. PORT-0595 shall verify that the inherent moisture content of the processed rock to be greater than or equal to 1.5 wt.% by testing.
   B. 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 method(s) approved by the Director. The first test shall be no later than 45 days after startup.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Testing shall be conducted at least once every year after the initial test, during the months of June through September, while the portable rock crushing plant is active at this site.

C. Test samples shall be obtained before processing (before entering the Primary Crusher, EP01) and after processing (prior to load-in to bins and/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. The written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed on-site or at the Mansfield Lime and Stone Quarry, Inc. main office.

D. If the inherent moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt.%, Mansfield Lime and Stone Quarry, Inc. shall apply for a new construction permit to account for the revised information or install wet spray devices on the affected units.

   A. PORT-0595 shall submit a testing plan to the Enforcement section of the Air Pollution Control Program for all equipment applicable to NSPS Subpart OOO. PORT-0595 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)
   PORT-0595 has designated the primary crusher (EP-05A) as the primary emission point of the portable rock crushing plant. Bypassing the primary emission point for processing is prohibited.

8. Restriction on Minimum Distance to Nearest Property Boundary
   The primary emission point of the portable rock crushing plant, which is the primary crusher (EP-05A), shall be located at least 450 feet from the nearest property boundary whenever it is operating at this site.

9. Record Keeping Requirement
   PORT-0595 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
    PORT-0595 shall report to the Air Pollution Control Program 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.
TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

PROJECT DESCRIPTION

Mansfield Lime and Stone Quarry, Inc. has applied for authority to construct a new, generic, portable rock-crushing plant. This plant will be permitted to operate at the three sites listed in table 1. A stationary rock-crushing plant operates at each of these sites. Stationary compression internal combustion engines will power the portable plant. These engines should only be used to operate rock crushing, conveying or classifying equipment. 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 Wright County, an attainment area for all criteria air pollutants.

No permits have been issued by the Air Pollution Control Program for this installation.

The plant is permitted to operate under the following four scenarios:

**Solitary Operation:**
Solitary Operation is defined as operation when no other installations are present on the property. During Solitary Operation, the plant must record its daily production to insure that the National Ambient Air Quality Standard (NAAQS) is not exceeded. (See Ambient Air Quality Impact Analysis)

**Concurrent Same-Owner Operation:**
Concurrent Same-Owner Operation is defined as operation when other plants owned by parent company are located on the property. During Concurrent Same-Owner Operation, Mansfield Lime and Stone Quarry, Inc. may balance and record the daily production from all plants such that the NAAQS is not exceeded.

**Concurrent Separate-Owner Operation:**
Concurrent Separate-Owner Operation is defined as operation when other plants not owned by Mansfield Lime and Stone Quarry, Inc. are located on the property. During Concurrent Separate-Owner Operation, the plant must add a background level to its recorded impact to address the impact for the non-owned plants.

**Concurrent Same-and-Separate-Owner Operation:**
Concurrent Same-and-Separate-Owner Operation is defined as operation when plants owned and not owned by parent company are located on the property. During this scenario, Mansfield Lime and Stone Quarry, Inc. may balance the daily production from all owned plants and add a background from the non-owned plants to insure that the NAAQS is not exceeded.

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM$_{10}$. 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”. Based on the conditioned potential emissions, the operation is considered a minor source under 10 CSR 10-6.060 section (6).

The portable rock crushing plant has an annual emission limit of less than 50 tons of PM$_{10}$ in any 12-month period. A composite PM$_{10}$ emission factor was developed for the portable rock crushing plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment B. If the conditioned potential emissions of PM$_{10}$ were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results. The plant is also has an annual emission limit of less than 40 tons of NO$_X$ in any 12-month period. This limit was imposed because the applicant did not submit an air quality analysis for NO$_X$. 
Table 2: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th>Air Pollutant (Site Name)</th>
<th>Regulatory De Minimis Levels</th>
<th>Existing Potential Emissions</th>
<th>Existing Actual Emissions</th>
<th>Potential Emissions of the Application</th>
<th>*New Installation Conditioned Potential</th>
<th>Emission Factor (lb/ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM₁₀ (76 Quarry)</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>146.77</td>
<td>&lt; 50</td>
<td>0.08377</td>
</tr>
<tr>
<td>PM₁₀ (Mansfield)</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>91.20</td>
<td>&lt; 50</td>
<td>0.04886</td>
</tr>
<tr>
<td>PM₁₀ (Mountain Grove)</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>85.60</td>
<td>&lt; 50</td>
<td>0.05205</td>
</tr>
<tr>
<td>SOₓ (All Sites)</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>9.68</td>
<td>6.57</td>
<td>N/A</td>
</tr>
<tr>
<td>NOₓ (All Sites)</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>147.25</td>
<td>&lt; 40</td>
<td>0.0840</td>
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<tr>
<td>VOC (All Sites)</td>
<td>40.0</td>
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<td>N/A</td>
<td>12.04</td>
<td>8.18</td>
<td>N/A</td>
</tr>
<tr>
<td>CO (All Sites)</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>31.72</td>
<td>21.54</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs (All Sites)</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.13</td>
<td>0.09</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable; N/D = Not Determined
* PM₁₀ conditioned potential based on voluntary limit. NOₓ conditioned potential based on portable source limit. Other pollutants reduced proportionately to NOₓ.

** 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/m³ of PM₁₀ at or beyond the nearest property boundary in any single 24-hour period. The screening tools were used to develop an ambient impact factor for the portable rock crushing plant. This ambient impact factor is incorporated into the daily record keeping table, Attachment A.

For sources agreeing to use Best Management Practices, 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/m³ of PM₁₀. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m³ of PM₁₀ at or beyond the nearest property boundary.

Table 3: Ambient Air Quality Impact Analysis of PM₁₀, 24-Hour Averaging Time

<table>
<thead>
<tr>
<th>Operation</th>
<th>Ambient Impact Factor (µg/m³/ton)</th>
<th>Modeled Impact (µg/m³)</th>
<th>*Background (µg/m³)</th>
<th>NAAQS (µg/m³)</th>
<th>Daily Production Limit (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Solitary</td>
<td>0.02653</td>
<td>130.0</td>
<td>20.0</td>
<td>150.00</td>
<td>4900</td>
</tr>
<tr>
<td>2. Concurrent, Same Owner</td>
<td>0.02653</td>
<td>130.0</td>
<td>20.0</td>
<td>150.00</td>
<td>**</td>
</tr>
<tr>
<td>3. Concurrent, Separate Owner</td>
<td>0.02248</td>
<td>71.93</td>
<td>20.0</td>
<td>150.00</td>
<td>3200</td>
</tr>
<tr>
<td>4. Concurrent, Same-and-Separate Owner</td>
<td>0.02248</td>
<td>71.93</td>
<td>20.0</td>
<td>150.00</td>
<td>**</td>
</tr>
</tbody>
</table>

* Background PM₁₀ level of 20.00 µg/m³ from haul roads and stockpiles.
** The operator(s) must balance production among concurrently operating plants, with the ambient impact factors for each, such that NAAQS is not exceeded.
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
- No Operating Permit is required for this portable rock crushing plant.
- 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 (6), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required, I recommend this permit be granted with special conditions.

Michael Mittermeyer
Environmental Engineer

PERMIT DOCUMENTS
The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Mansfield Lime and 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.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southwest Regional Office Site Survey.
# Attachment A: Daily Ambient PM$_{10}$ Impact Tracking Record

Mansfield Lime and Stone Quarry, Inc. Portable Plant #2, PORT-0595 – Portable Rock Crushing Plant

**Project Number:** 2007-04-102

**Site Name:** __________

**County, CSTR:** ______________, ______________

**Primary Unit Size:** 400 tph

**Distance to Nearest Property Boundary:** 450 feet

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m$^3$)</th>
<th>$^1$Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>$^2$Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>$^2$Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>$^2$Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>$^3$Background PM$_{10}$ Level (µg/m$^3$)</th>
<th>$^4$TOTAL PM$_{10}$ Level (µg/m$^3$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>1,451</td>
<td>0.02653</td>
<td>38.50</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>20.00</td>
<td>58.50</td>
</tr>
<tr>
<td></td>
<td>0.02653</td>
<td></td>
<td></td>
<td></td>
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**Note 1:** The Daily PM$_{10}$ Impact (µg/m$^3$) for PORT-0595 is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

**Note 2:** The Daily PM$_{10}$ Impact (µg/m$^3$) for Same-Owner plants must be obtained from their operators.

**Note 3:** Background PM$_{10}$ Level (µg/m$^3$) is from Haul Roads and Stockpiles.

**Note 4:** The TOTAL PM$_{10}$ Level (µg/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 µg/m$^3$ in any 24-hour period indicates compliance.
## Attachment B: Daily Ambient PM<sub>10</sub> Impact Tracking Record

Mansfield Lime and Stone Quarry, Inc. Portable Plant #2, PORT-0595 – Portable Rock Crushing Plant

**Project Number:** 2007-04-102

**Site Name:**

**County, CSTR:**

**Primary Unit Size:** 400 tph

**Distance to Nearest Property Boundary:** 450 feet

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m&lt;sup&gt;3&lt;/sup&gt;/ton)</th>
<th>&lt;sup&gt;1&lt;/sup&gt;Daily PM&lt;sub&gt;10&lt;/sub&gt; Impact (µg/m&lt;sup&gt;3&lt;/sup&gt;)</th>
<th>&lt;sup&gt;2&lt;/sup&gt;Daily PM&lt;sub&gt;10&lt;/sub&gt; Impact (µg/m&lt;sup&gt;3&lt;/sup&gt;)</th>
<th>&lt;sup&gt;3&lt;/sup&gt;Daily PM&lt;sub&gt;10&lt;/sub&gt; Impact (µg/m&lt;sup&gt;3&lt;/sup&gt;)</th>
<th>&lt;sup&gt;4&lt;/sup&gt;Background PM&lt;sub&gt;10&lt;/sub&gt; Level (µg/m&lt;sup&gt;3&lt;/sup&gt;)</th>
<th>&lt;sup&gt;5&lt;/sup&gt;TOTAL PM&lt;sub&gt;10&lt;/sub&gt; Level (µg/m&lt;sup&gt;3&lt;/sup&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>1712</td>
<td>0.02248</td>
<td>38.50</td>
<td>N/A</td>
<td>78.07</td>
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<td>136.57</td>
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<td>0.02248</td>
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<td>78.07</td>
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<td>78.07</td>
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</table>

**Note 1:** The Daily PM<sub>10</sub> Impact (µg/m<sup>3</sup>) for PORT-0595 is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

**Note 2:** The Daily PM<sub>10</sub> Impact (µg/m<sup>3</sup>) for Same-Owner plants must be obtained from their operators.

**Note 3:** Background PM<sub>10</sub> Level (µg/m<sup>3</sup>) is from Haul Roads and Stockpiles.

**Note 4:** The TOTAL PM<sub>10</sub> Level (µg/m<sup>3</sup>) is calculated by summing the Daily PM<sub>10</sub> Ambient Impact(s) and the Background PM<sub>10</sub> Level. A TOTAL PM<sub>10</sub> Level of less than 150 µg/m<sup>3</sup> in any 24-hour period indicates compliance.
Attachment C: Monthly PM\textsubscript{10} Emissions Tracking Record
Mansfield Lime and Stone Quarry, Inc. Portable Plant #2, PORT-0595 – Portable Rock Crushing Plant

Project Number: 2007-04-102

County, CSTR: ____________________, ____________________
Primary Unit Size: 600 tph
Distance to Nearest Property Boundary: 600 feet

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

<table>
<thead>
<tr>
<th>Month</th>
<th>(^1)Site Name</th>
<th>Monthly Production (tons)</th>
<th>(^2)Composite PM\textsubscript{10} Emission Factor (lbs/ton)</th>
<th>(^3)Monthly PM\textsubscript{10} Emissions (lbs)</th>
<th>(^4)Monthly PM\textsubscript{10} Emissions (tons)</th>
<th>(^5)12-Month PM\textsubscript{10} Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>76 Quarry</td>
<td>15,862</td>
<td>0.08377</td>
<td>1328.8</td>
<td>0.66</td>
<td>0.66</td>
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<tr>
<td>Example</td>
<td>Mansfield</td>
<td>98,239</td>
<td>0.04886</td>
<td>4800</td>
<td>2.4</td>
<td>3.06</td>
</tr>
</tbody>
</table>

Note 1: Enter the appropriate site name as listed in table 3.
Note 2: Enter the corresponding emission factor for the site. Emission factors are located in table 6.
Note 3: The Monthly Emissions (lbs) are calculated by multiplying the Monthly Production (tons) by the Composite Emission Factor (lbs/ton).
Note 4: The Monthly Emissions (tons) are calculated by dividing the Monthly Emissions (lbs) by 2,000.
Note 5: 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 50 tons in any consecutive 12-month period indicates compliance.
Attachment D: Monthly NO\textsubscript{X} Emissions Tracking Record

Mansfield Lime and Stone Quarry, Inc. Portable Plant #2, PORT-0595 – Portable Rock Crushing Plant

Project Number: 2007-04-102

County, CSTR: ____________________, ____________________
Primary Unit Size: 600 tph
Distance to Nearest Property Boundary: 600 feet

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

<table>
<thead>
<tr>
<th>Month</th>
<th>Monthly Production (tons)</th>
<th>Composite NO\textsubscript{X} Emission Factor (lbs/ton)</th>
<th>\textsuperscript{1}Monthly NO\textsubscript{X} Emissions (lbs)</th>
<th>\textsuperscript{2}Monthly NO\textsubscript{X} Emissions (tons)</th>
<th>\textsuperscript{3}12-Month NO\textsubscript{X} Emissions (tons/year)</th>
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</thead>
<tbody>
<tr>
<td>Example</td>
<td>15,819</td>
<td>0.0840</td>
<td>1328.8</td>
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</table>

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" 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.

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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 and Stone Quarry, Inc.  
1726 Quarry Road  
Mansfield, MO 65704  


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 and the New Source Review application submitted for this project (2007-04-102) is necessary for continued compliance.  

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 contact Michael Mittermeyer at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or telephone (573) 751-4817. Thank you for your attention to this matter.  

Sincerely,  

AIR POLLUTION CONTROL PROGRAM  

Kendall B. Hale  
New Source Review Unit Chief  

KBH: mmk  
Enclosures  

C: Southwest Regional Office  
PAMS File: 2007-04-102  

Permit Number: