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: 062009-003 Project Number: 2009-04-062
Parent Company: Emery Sapp & Sons, Incorporated
Parent Company Address: 2602 North Stadium Boulevard, Columbia, MO 65202
Installation Name: Emery Sapp & Sons Plant Number 62-585
Installation Address: Highway 67, Zion, MO 63645
Location Information: Madison County, S20, T32N, R7E

Application for Authority to Construct was made for:
The installation of a new portable concrete batch plant. 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.

JUN - 3 2009
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 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 and 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.
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) 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.”*

1. Portable Equipment Identification Requirement
   To assure that each component is properly identified as being a part of this portable concrete plant, Emery Sapp & Sons, Incorporated (Emery Sapp & Sons) 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 no later than 15 days after start-up of the portable concrete plant.

2. Relocation of the Portable Concrete Plant
   A. The portable concrete plant 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 this portable concrete plant.
      1) If the portable concrete plant 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 the portable concrete plant is moving to a new site, or if there are other plants or equipment at the site that have 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.

3. 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.
SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: 123-0027
Site Name: Emery Sapp & Sons - Zion
Site Address: Highway 67, Zion, MO 63645
Site County: Madison County, S20, T32N, R7E

1. Best Management Practices
   Emery Sapp & Sons 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. Ambient Air Impact Limitation of PM<sub>10</sub>
   A. Emery Sapp & Sons (PORT-0634) shall ensure, while operating at this site, that the ambient impact of particulate matter less than ten (10) microns in diameter (PM<sub>10</sub>) at or beyond the nearest residence does not exceed 150.0 µg/m³ in any 24-hour period.

   B. The total daily ambient impact of PM<sub>10</sub> at this site shall include the combined impact of the portable plant and any ambient background concentration from installations or equipment located on the same site as the portable plant.

   C. To demonstrate compliance, Emery Sapp & Sons shall maintain a daily record of material processed. Attachment A, “Daily Ambient PM<sub>10</sub> Impact Tracking Record”, or other equivalent form(s), will be used for this purpose.

3. Moisture Content Testing Requirement
   A. Emery Sapp & Sons shall verify that the moisture content of the stored rock is greater than or equal to 1.50 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 initial test shall be conducted no later than 45 days after equipment startup.

   C. The operator may obtain a copy of the test results of the inherent moisture content from the supplier(s) of the aggregate. Otherwise, the operator shall obtain test samples from each shipment of untested aggregate. The
SITE SPECIFIC SPECIAL CONDITIONS:

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

- A 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 Emery Sapp & Sons’ main office.

- D. If the moisture content result of the first test is less than 1.50 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.50 wt.%, Emery Sapp & Sons shall apply for a new construction permit to account for the revised information or install wet spray devices on the affected units.

4. Dust Collector Control System Requirements
   A. Emery Sapp & Sons shall install and operate dust collector(s) to restrict the emissions of particulate matter from the following emission units:
      1) Cement Silo (EU5)
      2) Supplement Silo (EU6)
      3) Mixer Loading (EU10)

   B. Emery Sapp & Sons shall install instruments to monitor the operating pressure drop across the dust collector(s). All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer’s preventive maintenance recommendations. Emery Sapp & Sons shall check and record the pressure drop across the dust collector filter once per operating day during mixer operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

   C. Emery Sapp & Sons shall conduct and document a quarterly inspection and maintenance of the dust collector for structural component failures, for leaks and wear, and for the cleaning sequence of the dust collector. Replacement filters shall be kept on hand at all times to replace defective filters (The filters shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.

5. Restriction on Minimum Distance to Nearest Residence
   The primary emission point of the portable plant, which is the stack of the mixer loading, shall be located at least 468 feet from the nearest residence whenever it is operating at this site.
SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

6. Record Keeping Requirement
   Emery Sapp & Sons 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.

7. Reporting Requirement
   Emery Sapp & Sons 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.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW
Project Number: 2009-04-062
Installation ID Number: PORT-0634
Permit Number:

Emery Sapp & Sons Plant Number 62-585 Complete: April 22, 2009
Highway 67
Zion, MO 63645

Parent Company:
Emery Sapp & Sons, Incorporated
2602 North Stadium Boulevard
Columbia, MO 65202

Madison County, S20, T32N, R7E

REVIEW SUMMARY

• Emery Sapp & Sons has applied for the authority to construct a portable concrete batch plant.

• Hazardous Air Pollutant (HAP) emissions are expected due to the combustion of diesel fuel. All HAP emissions are below their respective Screening Model Action Levels (SMAL).

• None of the New Source Performance Standards (NSPS) apply to the proposed equipment.

• None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.

• Fabric filters are being used to control the \( PM_{10} \) emissions from the equipment in this permit.

• This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of \( PM_{10} \) are above de minimis levels.

• This installation is located in Madison County, an attainment area for all criteria air pollutants.

• This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
• Ambient air quality modeling was performed to determine the ambient impact of PM$_{10}$.

• Emissions testing is not required for the source.

• No Operating Permit is required for this installation.

• Approval of this permit is recommended with special conditions.

INSTALLATION/PROJECT DESCRIPTION

Emery Sapp & Sons has proposed to install a new portable concrete batch plant to be initially located 4 miles south of Cherokee Pass on the east side of Highway 67 in Madison County, Missouri. The portable plant has been assigned the plant identification number PORT-0634 by the Air Pollution Control Program and will be known as Plant Number 62-585 by the parent company. As this is a new portable plant, no prior construction permits have been issued to Plant Number 62-585 from the Air Pollution Control Program.

Concrete is produced by mixing aggregate (47%), sand (35%), cement (12%), water (4%), and cement supplement (2%). These materials will be delivered to the plant by truck over a 250 foot unpaved haul road (EU1). Aggregate and sand will be unloaded (EU2 and EU3) into large outdoor storage piles (EU4). Cement and supplement will be unloaded into enclosed storage bins (EU5 and EU6). Sand and aggregate are conveyed (EU7 and EU8) from the storage piles to an aggregate batch hopper (EU9). From the hopper, the sand and aggregate will be mechanically conveyed to a 12 cubic yard tilt mixer (EU10). The cement and supplement will be gravity fed from the storage bins into the tilt mixer (EU10) where the materials will be mixed together with water to form wet concrete. Emissions from the tilt mixer and the silos for the cement and supplement are vented to a dust collector equipped with fabric filters (CD1).

The maximum hourly design rate (MHDR) for the proposed concrete batch plant is 700 tons of concrete per hour. Power to the plant will be supplied by a 700 horsepower diesel fueled generator (EU11). The portable plant will be temporarily erected close to the initial job site and then relocated when the job has finished. The following table provides a summary of the emission units considered for this application.

Table 1: Emission Unit Summary

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Description</th>
<th>MHDR</th>
<th>MHDR Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU1</td>
<td>Haul Road</td>
<td>250</td>
<td>Feet</td>
</tr>
<tr>
<td>EU2</td>
<td>Aggregate Load in/Load out</td>
<td>329</td>
<td>Tons Aggregate</td>
</tr>
<tr>
<td>EU3</td>
<td>Sand Load in/Load out</td>
<td>245</td>
<td>Tons Sand</td>
</tr>
<tr>
<td>EU4</td>
<td>Storage Pile Wind Erosion</td>
<td>8</td>
<td>Acre</td>
</tr>
<tr>
<td>EU5</td>
<td>Cement Silo</td>
<td>84</td>
<td>Tons Cement</td>
</tr>
<tr>
<td>EU6</td>
<td>Supplement Silo</td>
<td>14</td>
<td>Tons Supplement</td>
</tr>
<tr>
<td>EU7</td>
<td>Aggregate Transfer</td>
<td>329</td>
<td>Tons Aggregate</td>
</tr>
<tr>
<td>EU8</td>
<td>Sand Transfer</td>
<td>245</td>
<td>Tons Sand</td>
</tr>
<tr>
<td>EU9</td>
<td>Aggregate Hopper Loading</td>
<td>574</td>
<td>Tons Sand and Aggregate</td>
</tr>
<tr>
<td>EU10</td>
<td>Tilt Mixer Loading</td>
<td>98</td>
<td>Tons Cement and Supplement</td>
</tr>
<tr>
<td>EU11</td>
<td>Diesel Generator</td>
<td>700</td>
<td>Horsepower</td>
</tr>
</tbody>
</table>
EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 3.4 *Large Stationary Diesel and All Stationary Dual-fuel Engines* (October 1996), Section 11.12 *Concrete Batching* (June 2006), Section 13.2.2 *Unpaved Roads* (November 2006), and Section 13.2.4 *Aggregate Handling and Storage Piles* (November 2006). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

**Table 2: Emissions Summary (tons per year)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM&lt;sub&gt;10&lt;/sub&gt;</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>62.01</td>
<td>33.04</td>
<td>0.0202</td>
</tr>
<tr>
<td>SO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>1.10</td>
<td>0.59</td>
<td>N/A</td>
</tr>
<tr>
<td>NO&lt;sub&gt;x&lt;/sub&gt;</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>69.74</td>
<td>37.16</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>1.79</td>
<td>0.95</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>18.53</td>
<td>9.87</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.03</td>
<td>0.02</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Applicable

*Potential emissions of PM<sub>10</sub> are limited to comply with the National Ambient Air Quality Standards (NAAQS) and the potential emissions of all other pollutants are thereby proportionately reduced.

**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 PM<sub>10</sub> are above de minimis levels.

**APPLICABLE REQUIREMENTS**

Emery Sapp & Sons 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
  
  The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
• 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

SPECIFIC REQUIREMENTS
• Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of PM$_{10}$ from this portable plant to the nearest residence, which is 468 feet from the tilt mixer loading. The ambient impact of PM$_{10}$ shall not exceed the National Ambient Air Quality Standards (NAAQS) listed in table 3. An ambient impact factor for PM$_{10}$ was developed for the portable plant, and it is included in the record keeping table, Attachment A.

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 the 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 residence.

Table 3: Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Ambient Impact Factor (µg/m$^3$/ton)</th>
<th>Modeled Impact (µg/m$^3$)</th>
<th>*Background (µg/m$^3$)</th>
<th>NAAQS / RAL (µg/m$^3$)</th>
<th>Averaging Time</th>
<th>Daily Production Limit (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>0.0145</td>
<td>130.0</td>
<td>20.0</td>
<td>150.0</td>
<td>24-hour</td>
<td>8,951</td>
</tr>
</tbody>
</table>

* Background PM$_{10}$ level of 20.00 µg/m$^3$ from haul roads and stockpiles.

The plant is permitted to operate under the following four scenarios. Table 4 below provides a summary of the four operating scenarios.

I. **Solitary Operation** is defined as operation when no other installations are located on the property. During Solitary Operation, Emery Sapp & Sons must limit its daily production to ensure that the NAAQS is not exceeded.

II. **Concurrent Same-Owner Operation** is defined as operation when other plants owned by Emery Sapp & Sons are located on the property. During Concurrent Same-Owner Operation, Emery Sapp & Sons may balance the daily production from all plants owned by Emery Sapp & Sons such that the NAAQS is not exceeded.
III. **Concurrent Separate-Owner Operation** is defined as operation when other plants not owned by Emery Sapp & Sons are located on the property. During Concurrent Separate-Owner Operation, Emery Sapp & Sons must include a background pollutant concentration to account for the impact of the plants not owned by Emery Sapp & Sons. Emery Sapp & Sons must limit its daily production to ensure that the NAAQS is not exceeded.

IV. **Concurrent Same-and-Separate-Owner Operation** is defined as operation when plants are located on the property that are both owned and not owned by Emery Sapp & Sons. During Concurrent Same-and-Separate-Owner Operation, Emery Sapp & Sons may balance the daily production from all owned plants and must also include a background pollutant concentration for the plants not owned by Emery Sapp & Sons to ensure that the NAAQS is not exceeded.

**Table 4: Operating Scenarios**

<table>
<thead>
<tr>
<th>Operating Scenario</th>
<th>Parent Company Allowed Impact (μg/m³)</th>
<th>Separate-Owner Background (μg/m³)</th>
<th>BMP Background (μg/m³)</th>
<th>Total Impact (μg/m³)</th>
<th>Plant Daily Production Limit (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solitary</td>
<td>130.00</td>
<td>N/A</td>
<td>20.00</td>
<td>150.00</td>
<td>8,951</td>
</tr>
<tr>
<td>Concurrent Same-Owner</td>
<td>130.00</td>
<td>N/A</td>
<td>20.00</td>
<td>150.00</td>
<td>**</td>
</tr>
<tr>
<td>Concurrent Separate-Owner</td>
<td>122.07</td>
<td>7.93</td>
<td>20.00</td>
<td>150.00</td>
<td>8,418</td>
</tr>
<tr>
<td>Concurrent Same-and-Separate-Owner</td>
<td>122.07</td>
<td>7.93</td>
<td>20.00</td>
<td>150.00</td>
<td>**</td>
</tr>
</tbody>
</table>

** Emery Sapp & Sons must balance production between their concurrently operating plants so that the NAAQS is not exceeded.
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.

_____________________________  ____________________
Kathi Jantz                     Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated April 16, 2009, received April 22, 2009, designating Emery Sapp & Sons, Incorporated as the owner and operator of the installation.


**Attachment A: Daily Ambient PM₁₀ Impact Tracking Record**

**Emery Sapp & Sons Plant Number 62-585 (PORT-0634) – Portable Concrete Plant**

Project Number: 2009-04-062  
County, CSTR: Madison County S20, T32N, R7E  
Primary Unit Size: 700 tph  
Distance to Nearest Residence: 468 feet

This sheet covers the period from ____________________ to ____________________ (Month, Day, Year)

<table>
<thead>
<tr>
<th>Date</th>
<th>Emery Sapp &amp; Sons Plant Number 62-585 PORT-0634 Project # 2009-04-062</th>
<th>Same-Owner Plant</th>
<th>Same-Owner Plant</th>
<th>Separate-Owner Plant</th>
<th>Separate-Owner Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date</td>
<td>Daily Production (tons)</td>
<td>Ambient Impact Factor (µg/m³/ton)</td>
<td>'Daily Impact (µg/m³)</td>
<td>Daily Production (tons)</td>
</tr>
<tr>
<td>Example</td>
<td>7,500</td>
<td>0.0145</td>
<td>108.75</td>
<td>N/A</td>
<td>N/A</td>
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<td>October</td>
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<tr>
<td>October</td>
<td>0.0145</td>
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</tbody>
</table>

**Note 1:** The Daily Impact (µg/m³) for each plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

**Note 2:** Separate-Owner Background Level (µg/m³) is 0 when no other separately owned plants are located at the site and is 7.93 when other separately owned plants are co-located at the site.

**Note 3:** Background Level (µg/m³) is from Haul Roads and Stockpiles.

**Note 4:** The TOTAL Level (µg/m³) is calculated by summing the Daily Ambient Impact(s) and the Background Levels. A TOTAL Level not greater than 150 µg/m³ in any 24-hour 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 concrete, 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 concrete, 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. Dennis Martin  
Concrete Plant Supervisor  
Emery Sapp & Sons, Incorporated  
2602 North Stadium Boulevard  
Columbia, MO 65202  

RE: New Source Review Permit - Project Number: 2009-04-062  

Dear Mr. Martin:  

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, 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 your 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 regarding this permit, please do not hesitate to contact Kathi Jantz, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or (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:kfj  

Enclosures  

c: Southeast Regional Office  
  PAMS File: 2009-04-062  
  Permit Number: