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: 102007-010
Project Number: 2007-09-010
PORT-0604
Owner: Emery Sapp & Sons, Inc.
Owner’s Address: 2602 North Stadium Blvd, Columbia, MO 65202
Installation Name: Saline County Fairground
Installation Address: North 65 Hwy, Marshall, MO 65340
Location Information: Saline County, S27, T50N, R21W

Application for Authority to Construct was made for:

The installation of a new portable concrete plant. Concrete is produced through a Central Mix process. The portable concrete plant has a maximum hourly design rate (MHDR) of 780 tons per hour (tph). Best Management Practices will be used to control fugitive 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.
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.
The installation of a new portable concrete plant. Concrete is produced through a Central Mix process. The portable concrete plant has a maximum hourly design rate (MHDR) of 780 tons per hour (tph). Best Management Practices will be used to control fugitive 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.
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, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Portable Equipment Identification Requirement
To assure that each component is properly identified as being a part of this portable concrete plant (PORT-0604), Emery Sapp & Sons, Inc. 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 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.

4. Reporting Requirement
The operator(s) 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.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: PORT-0604
Site Name: Saline County Fairground
Site Address: North 65 Hwy, Marshall, MO 65340
Site County: Saline County, S27, T50N, R21W

1. Best Management Practices
   Emery Sapp & Sons, 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. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM$_{10}$)
   A. The operator(s) shall ensure that Emery Sapp & Sons, Inc.'s portable concrete plant emits less than 50 tons of PM$_{10}$ into the atmosphere in any 12-month period.
   B. To demonstrate compliance, the operator(s) shall maintain a monthly record of material processed and PM$_{10}$. Attachment A, Monthly PM$_{10}$ Emissions Tracking Record, or other equivalent form(s), shall be used for this purpose.

3. Baghouse(s) Control System Requirements
   A. Emery Sapp & Sons, Inc. shall install and operate baghouse(s) to restrict the emission of particulate matter. The baghouse(s) must be used whenever these units are in operation. The baghouse(s) shall be installed on the following units: Cement Unloading, Cement Supplement Unloading, Weight Hopper Loading, Aggregate Transfer, and Mixer Loading.
   B. Emery Sapp & Sons, Inc. shall install instruments to monitor the operating pressure drop across the baghouse. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations. The operator(s) shall check and record the pressure drop across the baghouse filter once per operating day during silo loading. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
   C. The operator(s) shall conduct and document a quarterly inspection and maintenance of the baghouse for structural component failures, for leaks and wear, and for the cleaning sequence of the baghouse. Replacement bags shall be kept on hand at all times to replace defective bags (The bags shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.

4. Prohibition Against Concurrent Operations Without Further AIR POLLUTION CONTROL PROGRAM Review
   The portable concrete plant (PORT-0604) is prohibited from operating whenever any other plant(s) are located at this site.

5. Restriction on Minimum Distance to Nearest Property Boundary
   The primary emission point of the portable concrete plant, which is the mixer loading, shall be located at least 500 feet from the nearest property boundary whenever it is operating at this site.

6. Restrictions on Operations at the Saline County Fairground
   The portable plant is prohibited from operating at any time when there is an activity being held at the Saline County Fairground.
SITE-SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

Site ID No.: PORT-0604
Site Name: Emery Sapp & Sons
Site Address: 850 feet off Route 63 on HBC Road, Macon, MO 63552
Site County: Macon County, S9, T57N, R14W

1. Best Management Practices
   Emery Sapp & Sons, 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 Emery Sapp & Sons, Inc.’s portable concrete plant (PORT-0604) 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 portable plant is permitted to operate under four (4) scenarios at the site: 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 portable concrete plant and any ambient background concentration from installations or equipment located on the same site as the portable concrete plant.
   C. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. Attachment B, or other equivalent form(s), shall be used for this purpose during solitary and concurrent (same owner) operations. Attachment C, or other equivalent form(s), shall be used for this purpose during concurrent (separate owners) and concurrent (same and separate owners) operations.

3. Baghouse(s) Control System Requirements
   A. Emery Sapp & Sons, Inc. shall install and operate baghouse(s) to restrict the emission of particulate matter. The baghouse(s) must be used whenever these units are in operation. The baghouse(s) shall be installed on the following units: Cement Unloading, Cement Supplement Unloading, Weight Hopper Loading, Aggregate Transfer, and Mixer Loading.
   B. Emery Sapp & Sons, Inc. shall install instruments to monitor the operating pressure drop across the baghouse. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer’s preventive maintenance recommendations. The operator(s) shall check and record the pressure drop across the baghouse filter once per operating day during silo loading. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
   C. The operator(s) shall conduct and document a quarterly inspection and maintenance of the baghouse for structural component failures, for leaks and wear, and for the cleaning sequence of the baghouse. Replacement bags shall be kept on hand at all times to replace defective bags (The bags shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.

4. Restriction on Minimum Distance to Nearest Property Boundary
   The primary emission point of the portable concrete plant, which is the mixer loading, shall be located at least 180 feet from the nearest property boundary whenever it is operating at this site.

5. Restrictions on the Use of Diesel Engines/Generators
   The portable plant shall power its equipment using electrical line power. No diesel engines/generators shall be used by the plant while operating at this site. If the company would like to switch to diesel engines, a new permit review will be required.
PROJECT DESCRIPTION

The portable concrete plant was originally owned by W. A. Ellis Construction Company and was initially permitted to operate in Kansas City by the Kansas City Health Department (Permit #925-095-2216). It was eventually dismantled and sold to Emery Sapp & Sons Inc., which started operations in Macon County (S9, T57N, R14W). When Emery Sapp & Sons Inc. moved the plant to Macon County, it applied for, and received, a section 4 relocation permit (Project 2007-04-111) under portable plant identification number 0096. However PORT-0096 is another portable concrete plant owned by Emery Sapp & Sons, Inc. and therefore, the permit that allowed the plant to be moved to Macon County was issued incorrectly. The company would now like to relocate the plant from Macon County to Saline County (S27, T50N, R21W) to operate at the Saline County Fairground. It was determined by the Air Pollution Control Program that a new permit should be issued to the plant and this permit should include both the site in Macon County and Saline County.

Concrete is composed of water, cement, sand (fine aggregate), and non-metallic course aggregate rock. These materials are processed in a central mix drum. Processed concrete is delivered as sellable product. A diesel engine/generator with a design rate of 475 horsepower is permitted as part of the plant. At the Saline County Fairground, the portable plant can use this diesel engine/generator to power equipment for production. At the site in Macon County, the portable plant has indicated that it will be powering its equipment using electrical lines, and the diesel engine shall not be used at this site. If the company decides that it would like to use the diesel engine/generator at the site in Macon County, a new permit review will be required.

At Saline County Fairgrounds, the portable plant can only operate by itself at the site. While located at this site, the portable plant shall not operate at any time when there is an activity being held on the fairground.

At the Macon County site, the portable plant can operate under four (4) separate scenarios.

- Solitary Operations: Operations when the concrete plant is located at this site by itself.
- Concurrent (Same Owner) Operations: Operations when the concrete plant is located at this site at the same time as other plants owned by Emery Sapp & Sons, Inc.
- Concurrent (Separate Owners) Operations: Operations when the concrete plant is located at this site at the same time as other plant owned by other companies.
- Concurrent (Same and Separate Owners) Operations: Operations when the concrete plant is located at this site at the same time as other plants owned by Emery Sapp & Sons, Inc. and other plants owned by other companies.

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 permitted to operate in Macon and Saline Counties, attainment areas for all criteria air pollutants.

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. 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).

At the site in Saline County (S27, T50N, R21W), the portable concrete plant has an annual emission limit of less than 50 tons of PM10 in any 12-month period. A composite PM10 emission factor was developed for the portable concrete plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment A. If the conditioned potential emissions of PM10 were 50 tons per year or greater, then the owner would be required to submit dispersion modeling results. The emissions evaluation for this site include emissions from a 475 hp diesel engine/generator.
Table 1: Emissions Summary (tons per year) While Operating at the Saline County Fairgrounds

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>86.70</td>
<td>&lt;50.00</td>
<td>0.0254</td>
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<tr>
<td>SO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>4.39</td>
<td>2.53</td>
<td>N/A</td>
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<tr>
<td>NO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>66.69</td>
<td>38.44</td>
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<td>VOC</td>
<td>40.0</td>
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<td>N/A</td>
<td>5.44</td>
<td>3.14</td>
<td>N/A</td>
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<tr>
<td>CO</td>
<td>100.0</td>
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<td>N/A</td>
<td>14.37</td>
<td>8.28</td>
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<tr>
<td>HAPs</td>
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<td>N/A</td>
<td>006</td>
<td>0.03</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable

*PM$_{10}$ conditioned potential based on limit in permit conditions. Other pollutants proportionally reduced.

At the site in Macon County, the conditioned potential PM$_{10}$ is below 50 tons and therefore, no record keeping is necessary to ensure compliance with this limit. The emissions evaluation for this site does not include a diesel engine/generator.

Table 2: Emissions Summary (tons per year) While Operating at Macon County Site

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>71.40</td>
<td>43.20</td>
<td>N/A</td>
</tr>
<tr>
<td>SO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>006</td>
<td>0.03</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable

* PM$_{10}$ conditioned potential based on ambient air impact analysis.

**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 500 feet to the nearest property boundary at the Saline County Fairground and at a distance of 180 feet to the nearest property boundary at the Macon County site. The ambient impact at these sites 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.

At the Saline County Fairground, the portable plant can operate for twenty-four (24) hours per day without exceeding the 150 µg/m$^3$ limit. Therefore, no record keeping is necessary to ensure compliance with this limit.

Table 3: Ambient Air Quality Impact Analysis of PM$_{10}$, 24-Hour Averaging Time, at Saline County Fairgrounds

<table>
<thead>
<tr>
<th>Operation</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 (µg/m$^3$)</th>
<th>Daily Production Limit (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solitary</td>
<td>0.0068</td>
<td>128.00</td>
<td>20.00</td>
<td>150.00</td>
<td>18,720</td>
</tr>
</tbody>
</table>

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

At the Macon County site, the following recordkeeping procedure must be followed.

- Solitary Operations: The concrete plant must track its daily PM$_{10}$ ambient impact to ensure compliance with NAAQS. Attachment B, or other equivalent forms, shall be used for this purpose.
• Concurrent (Same Owner) Operations: The concrete plant shall track the daily PM$_{10}$ ambient impact of all plants at the site to ensure compliance with NAAQS. Ambient impacts of other plants owned by Emery Sapp & Sons, Inc. can be obtained from the operators of these plants.

• Concurrent (Separate Owners) Operations: The concrete plant is allowed 54.45 µg/m$^3$ of PM$_{10}$ ambient impact while plants owned by other companies are allowed 75.55 µg/m$^3$. 20.00 µg/m$^3$ are reserved for the use of Best Management Practices. The concrete plant shall track its own daily PM$_{10}$ ambient impact to ensure it does not exceed 54.45 µg/m$^3$. Attachment C, or other equivalent forms, shall be used for this purpose.

• Concurrent (Same and Separate Owners) Operations: Plants owned by Emery Sapp & Sons, Inc. are allowed a combined PM$_{10}$ ambient impact of 54.45 µg/m$^3$ while plants owned by other companies are allowed 75.55 µg/m$^3$. 20.00 µg/m$^3$ are reserved for the use of Best Management Practices. The concrete plant shall track its own daily PM$_{10}$ ambient impact and the daily PM$_{10}$ ambient impact of other plants owned by Emery Sapp & Sons, Inc. to ensure the combined daily PM$_{10}$ ambient impacts of all plants owned by Emery Sapp & Sons, Inc. does not exceed 54.45 µg/m$^3$. Attachment C, or other equivalent forms, shall be used for this purpose.

Table 3: Ambient Air Quality Impact Analysis of PM$_{10}$, 24-Hour Averaging Time, at Macon County

<table>
<thead>
<tr>
<th>Operation</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 (µg/m$^3$)</th>
<th>Daily Production Limit (tons)</th>
</tr>
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<tbody>
<tr>
<td>2. Solitary</td>
<td>0.0115</td>
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<td>0.0115</td>
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<td>20.00</td>
<td>150.00</td>
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<tr>
<td>4. Concurrent, Separate Owners</td>
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<td>54.45</td>
<td>95.55</td>
<td>150.00</td>
<td>5,644</td>
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<tr>
<td>5. Concurrent, Same and Separate Owners</td>
<td>0.0096</td>
<td>**</td>
<td>95.55</td>
<td>150.00</td>
<td>**</td>
</tr>
</tbody>
</table>

*Background PM$_{10}$ level of 20.00 µg/m$^3$ from haul roads and stockpiles and 75.55 µg/m$^3$ from plants owned by other companies.

**The operator(s) must balance production among concurrently operating plants owned by Emery Sapp & Sons, Inc., with the ambient impacts for each, such that NAAQS is not exceeded. Ambient impacts from other plants owned by Emery Sapp & Sons, Inc. 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
- No Operating Permit is required for this portable concrete 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
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- 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.

Chia-Wei Young
Environmental Engineer
PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Emery Sapp & Sons, 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.
- Northeast Regional Office Site Survey.
- Best Management Practices.
Attachment A: Monthly PM$_{10}$ Emissions Tracking Record
Emery Sapp & Sons, Inc., PORT-0604 – Portable Concrete Plant

<table>
<thead>
<tr>
<th>Month</th>
<th>Monthly Production (tons)</th>
<th>Composite PM$_{10}$ Emission Factor (lbs/ton)</th>
<th>(^1)Monthly PM$_{10}$ Emissions (lbs)</th>
<th>(^2)Monthly PM$_{10}$ Emissions (tons)</th>
<th>(^3)12-Month PM$_{10}$ Emissions (tons/year)</th>
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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 11 months. A total of less than 50 tons in any consecutive 12-month period indicates compliance.
### Attachment B: Daily Ambient PM$_{10}$ Impact Tracking Record

**Emery Sapp & Sons, Inc., PORT-0604—Portable Concrete Plant**

**Solitary and Concurrent (Same Owner) Operations**

Project Number: 2007-09-010  
County, CSTR: Macon County (S9, T57N, R14W)  
Primary Unit Size: 780 tph  
Distance to Nearest Property Boundary: 180 feet

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

### Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m³/ton)</th>
<th>'Daily PM$_{10}$ Impact (µg/m³)</th>
<th>'Daily PM$_{10}$ Impact (µg/m³)</th>
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**Note 1:** The Daily PM$_{10}$ Impact (µg/m³) for PORT-0604 is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.

**Note 2:** The Daily PM$_{10}$ Impact (µg/m³) for other plants owned by Emery Sapp & Sons, Inc. can be obtained from the operators of these plants. If the asphalt plant is operating by itself at the site, a value of zero (0) shall be entered.

**Note 3:** Background PM$_{10}$ Level (µg/m³) is from Haul Roads and Stockpiles.

**Note 4:** The TOTAL PM$_{10}$ Level (µg/m³) 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/m³ in any 24-hour period indicates compliance.
Attachment C: Daily Ambient PM\textsubscript{10} Impact Tracking Record  
Emery Sapp & Sons, Inc., PORT-0604 – Portable Concrete Plant  
Concurrent (Separate Owners) and Concurrent (Same and Separate Owners) Operations

Project Number: 2007-09-010  
County, CSTR: Macon County (S9, T57N, R14W)  
Primary Unit Size: 780 tph  
Distance to Nearest Property Boundary: 180 feet

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

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<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m\textsuperscript{3}/ton)</th>
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<th>\textsuperscript{2}Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3})</th>
<th>\textsuperscript{3}Background PM\textsubscript{10} Level (µg/m\textsuperscript{3})</th>
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Note 1: The Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3}) for PORT-0604 is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor.
Note 2: The Daily PM\textsubscript{10} Impact (µg/m\textsuperscript{3}) for other plants owned by Emery Sapp & Sons, Inc. can be obtained from the operators of these plants. If there are no other plants owned by Emery Sapp & Sons, Inc. operating at this site, a value of zero (0) shall be entered.
Note 3: Background PM\textsubscript{10} Level (µg/m\textsuperscript{3}) is from Haul Roads and Stockpiles and from the operations of other plants owned by other companies.
Note 4: The TOTAL PM\textsubscript{10} Level (µg/m\textsuperscript{3}) is calculated by summing the Daily PM\textsubscript{10} Ambient Impact(s) and the Background PM\textsubscript{10} Level. A TOTAL PM\textsubscript{10} Level of less than 150 µg/m\textsuperscript{3} in any 24-hour period indicates compliance.
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 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 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, Inc.  
2602 North Stadium Blvd  
Columbia, MO 65202  

RE: New Source Review Permit - Project Number: 2007-09-010  

Dear Mr. Martin:  

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 project 2007-09-010 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 do not hesitate to contact Mr. Chia-Wei Young at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.  

Sincerely,  

AIR POLLUTION CONTROL PROGRAM  

Kendall B. Hale  
New Source Review Unit Chief  

KBH: cwyn  

Enclosure  

c: Northeast Regional Office  
PAMS File: 2007-09-010  
Permit Number: