The installation of an asphalt plant at an existing rock crushing installation. Asphalt is produced through a drum mix dryer. The asphalt plant has a maximum hourly design rate (MHDR) of 200 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 (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.

☐ Standard Conditions (on reverse) are applicable to this permit.

☑ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JAN 30 2009
EFFECTIVE DATE

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES
STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years 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.
The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. “Conditions required by permitting authority”; by 10 CSR 10-6.010 “Ambient Air Quality Standards” and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3. Furthermore, one or more of the Subparts of 40 CFR Part 60, New Source Performance Standards (NSPS), applies to this installation.

1. Best Management Practices
   Melrose Quarry shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing Best Management Practices (BMPs), which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA. The haul roads to be controlled by BMPs include haul roads used by both the rock crushing plant and the asphalt plant.

2. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM$_{10}$)
   A. The operator(s) for this installation(161-0034), which includes both the rock-crushing plant and the asphalt plant, 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 installation is permitted to operate under four (4) scenarios: Solitary, concurrent (same owner), concurrent (separate owners) and concurrent (same and separate owner) operations. The total daily ambient impact of PM$_{10}$ at this site shall include the combined impact of the installation and any ambient background concentration from installations or equipment located on the same site.
   C. To demonstrate compliance during concurrent (same owners) and concurrent (same and separate owners) operations, the operator(s) shall maintain a daily record of material processed. Attachment A, or other equivalent form(s), shall be used for this purpose during concurrent (same owners) operations and Attachment B, or other equivalent form(s), shall be used for this purpose during concurrent (same and separate) owner operations.

3. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM$_{10}$)
   A. The operator(s) shall ensure that Melrose Quarry’s asphalt plant emits less than 15 tons of PM$_{10}$ into the atmosphere in any 12-month period. This 15 tons limit only applies to equipment at the asphalt plant and not the rock crushing plant.
   B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed and PM$_{10}$. Attachment C, Monthly PM$_{10}$ Emissions Tracking Record, or other equivalent form(s), shall be used for this purpose.

4. Moisture Content Testing of Storage Piles Requirement
   A. Melrose Quarry claimed the moisture content of the stored rock to be greater than or equal to 1.5 wt.%, which shall be verified 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.
   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 source of untested aggregate. 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 submitted to the Enforcement section of the Air Pollution Control Program, and a copy shall be sent to the Regional Office.
   D. If the 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.%, Melrose Quarry shall apply for a new construction permit to account for the revised information.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

5. Baghouse(s) Control System Requirements
   A. Melrose Quarry shall install and operate baghouse(s) to restrict the emission of particulate matter.
      The baghouse(s) shall be installed on the following units: drum dryer. The baghouse(s) must be used
      whenever this unit is in operation.
   B. The Melrose Quarry 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 baghouse operating pressure drop shall be maintained between according to
      manufacturer's specifications.
   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.

   Melrose Quarry shall comply with all appropriate monitoring, testing, reporting and record keeping

7. Restriction on Minimum Distance to Nearest Property Boundary
   The primary emission point of the asphalt plant, which is the stack of the drum mix dryer, shall be located at
   least 1,000 feet from the nearest property boundary whenever it is operating at this site.

8. 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 immediately to any Missouri Department of Natural Resources' personnel upon
   request.

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

10. Superseding Condition
    Special conditions no. 1 and 2 of this permit supersede special conditions no. 1, 2 and 3 found in permit
    0498-013 (Project 2001-07-002) from the Air Pollution Control Program.
TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

INSTALLATION AND PROJECT DESCRIPTION

Melrose Quarry operates an existing rock crushing installation at this site. The rock crushing plant was purchased from Southwest Quarries and Materials, Inc. and all previous permits were permitted under Southwest Quarries and Materials, Inc. The rock crushing installation is originally a grandfathered plant but has since had several permits issued due to additions of equipment and modification to allow concurrent operations. The following permits have been issued to the rock-crushing installation.

Table 1. Other Permits Issued for Installation 161-0034

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Completed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0796-001</td>
<td>7/2/1996</td>
<td>New Screen</td>
</tr>
<tr>
<td>0498-013</td>
<td>4/15/1998</td>
<td>Replacing jaw crusher and screen</td>
</tr>
<tr>
<td>0498-013*</td>
<td>7/6/2001</td>
<td>To allow concurrent operations</td>
</tr>
</tbody>
</table>

*This is an amendment to existing permit 0498-013. No new permit number was given when the permit was issued.

The installation would like to install a new stationary asphalt plant at the site which will be placed at least 1,000 feet from the nearest property boundary. The asphalt plant should be considered part of the same installation as the rock-crushing plant because both plants are owned by the same owner, both plants are located on the same property and the rock-crushing plant can be considered a support facility for the asphalt plant because it will be supplying the aggregates used by the asphalt plant.

The equipment list of the rock crushing plant supplied by the company for this project contains less equipment than what had previously been accounted for in the ambient impact analysis. Melrose Quarry, however, said that it did not make any changes to the rock crushing plant after it was purchased from Southwest Quarries and Materials, Inc. The previous owner may have removed some of the equipment prior to the purchase. The emissions evaluation and ambient impact analysis for the rock crushing plant were performed using the new updated equipment list. The rock crushing plant currently consists of two (2) crushers, two (2) screens and eight (8) conveyors and is located at least 1,000 feet from the nearest property boundary. It also uses a 3,500 feet haul road.

Previous permit issued to the rock crushing plant allowed the use of undocumented watering to control fugitive emissions from haul road EP-3 and vehicular activity of storage pile EP-12. However, in order to allow this asphalt plant to be located at this site, the company will now be required to apply Best Management Practices on all haul roads and vehicular activity areas at the site. All equipment at the site will be powered by electrical power and no diesel engines/generators will be used at the site. The only combustion source at the site will be a 2.0 MMBTU/hr asphalt cement heater.

The emission points for the asphalt plant are listed in the attached spreadsheet summary. This installation is classified under the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2, Item 27]. The installation is located in Phelps County, an attainment area for all criteria air pollutants.

The installation is permitted to operate under the following four (4) scenarios.

- Solitary Operations: Operations when the rock-crushing/asphalt installation is the only source at the site.
- Concurrent (Same Owner) Operations: Operations when the rock-crushing/asphalt installation is at the site at the same time as other installations owned by the Melrose Quarries and Asphalt, LLC.
- Concurrent (Separate Owners) Operations: Operations when the rock-crushing/asphalt installation is at the site at the same time as other installations owned by other companies.
- Concurrent (Same and Separate Owners) Operations: Operations when the rock-crushing/asphalt installation is at the site at the same time as other installations owned by Melrose Quarries and Asphalt, LLC and other installations owned by other companies.

Since the asphalt and rock crushing plant is part of the same installation, it shall be considered solitary operations when both are operating at the site without any other plants.
EMISSIONS EVALUATION

Criteria air pollutants will be emitted from the asphalt plant. The main air pollutants of concern are PM$_{10}$, CO, and NO$_x$. The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section “Permit Documents”. Melrose Quarries have accepted a limit of less than 15 tons of PM$_{10}$ for the asphalt plant so increment analysis would not be required. With the limit on PM$_{10}$, emissions of all other pollutants would be limited to below their respective de minimis levels. Based on the conditioned potential emissions, the operation is considered a de minimis source under 10 CSR 10-6.060 section (5).

A composite PM$_{10}$ emission factor was developed for the asphalt plant. The composite emission factor is incorporated into the monthly record keeping table, Attachment C. The 15 tons per year PM$_{10}$ limit is only for the asphalt plant and not the entire installation (which includes the rock crushing plant).

Table 2: Emissions Summary (tons per year)

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</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>48.30</td>
<td>N/D</td>
<td>46.05</td>
<td>&lt;15.0</td>
<td>0.0528</td>
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<tr>
<td>SOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/D</td>
<td>49.93</td>
<td>16.27</td>
<td>N/A</td>
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<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/D</td>
<td>48.18</td>
<td>15.69</td>
<td>N/A</td>
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<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/D</td>
<td>28.03</td>
<td>9.13</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/D</td>
<td>113.88</td>
<td>37.10</td>
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<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/D</td>
<td>8.76</td>
<td>2.85</td>
<td>N/A</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>2.0</td>
<td>N/A</td>
<td>N/D</td>
<td>2.716</td>
<td>0.885</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: N/A = Not Applicable; N/D = Not Determined
Note 1: 2.0 tons per year of formaldehyde is the Screening Model Action Level (SMAL) and not the de minimis level.
Note 2: Existing potential emissions calculated from equipment at the rock crushing plant.
Note 3: PM$_{10}$ conditioned potential based on voluntary limit. Other pollutants proportionately reduced.

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of the hourly emissions from the asphalt plant. The ambient impact was evaluated at a distance of 1,000 feet to the nearest property boundary. The ambient air impact from the rock crushing plant was also re-evaluated using updated emission factors and equipment list. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m$^3$ of PM$_{10}$ at or beyond the nearest property boundary in any single 24-hour period. The screening tools were used to develop an ambient impact factor for the asphalt plant. This ambient impact factor is incorporated into the daily 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 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.
Table 3: Ambient Air Quality Impact Analysis of PM$_{10}$, 24-Hour Averaging Time

<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>1. Solitary</td>
<td>0.0032/0.00318</td>
<td>34.22</td>
<td>20.00</td>
<td>150.00</td>
<td>4,800/6,000</td>
</tr>
<tr>
<td>2. Concurrent (Same Owner)</td>
<td>0.0032/0.00318</td>
<td>Note 4</td>
<td>20.00</td>
<td>150.00</td>
<td>Note 4</td>
</tr>
<tr>
<td>3. Concurrent (Separate Owners)</td>
<td>0.0032/0.00318</td>
<td>34.22</td>
<td>115.78</td>
<td>150.00</td>
<td>4,800/6,000</td>
</tr>
<tr>
<td>4. Concurrent (Same and Separate Owners)</td>
<td>0.0032/0.00318</td>
<td>Note 4</td>
<td>115.78</td>
<td>150.00</td>
<td>Note 4</td>
</tr>
</tbody>
</table>

Note 1: 0.0032 µg/m$^3$ ton from the asphalt plant. 0.00318 µg/m$^3$ ton from the rock crushing plant.
Note 2: Background PM$_{10}$ level of 20.00 µg/m$^3$ from haul roads and stockpiles and 95.78 µg/m$^3$ from the operation of installations owned by other companies.
Note 3: 4,800 tons per day for the asphalt plant, 6,000 tons per day for the rock crushing plant.
Note 4: The operator(s) must balance production among concurrently operating plants, with the ambient impacts for each, such that NAAQS is not exceeded. Ambient impacts for other plants owned by Melrose Quarry and Asphalt, LLC can be obtained from the operators of these plants.

APPLICABLE REQUIREMENTS

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

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110
- Operating Permits, 10 CSR 10-6.065
- An application to modify your existing operating permit is required for this installation within 30 days of equipment startup.
- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220
- Restriction of Emission of Odors, 10 CSR 10-3.090
- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400
- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required, I recommend this permit be granted with special conditions.

Chia-Wei Young
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, designating Melrose Quarry and Asphalt 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.
- EPA Factor Information Retrieval (FIRE) Version 6.21
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.
- Best Management Practices
Attachment A: Daily Ambient PM$_{10}$ Impact Tracking Record
Melrose Quarry, 161-0034 – Asphalt/Rock Crushing Installation
For Use During Concurrent (Same Owner) Operations

Project Number: 2008-08-066
County, CSTR: Phelps County (S21, T37N, R8W)
Primary Unit Size: 200 tph
Distance to Nearest Property Boundary: 1,000 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$^3$/ton)</th>
<th>Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>Daily Production (tons)</th>
<th>Ambient Impact Factor (µg/m$^3$/ton)</th>
<th>Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>Daily PM$_{10}$ Impact (µg/m$^3$)</th>
<th>Background PM$_{10}$ Level (µg/m$^3$)</th>
<th>TOTAL PM$_{10}$ Level (µg/m$^3$)</th>
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<td>0.0032</td>
<td>0.0032</td>
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</table>

Note 1: The Daily PM$_{10}$ Impact (µg/m$^3$) for the asphalt and rock crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor. The Daily PM$_{10}$ Impact (µg/m$^3$) for other installations owned by Melrose Quarry and Asphalt, LLC can be obtained from the operators of these plants.

Note 2: Background PM$_{10}$ Level (µg/m$^3$) is from Haul Roads and Stockpiles.

Note 3: 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$_{10}$ Impact Tracking Record
**Melrose Quarry, 161-0034 – Asphalt/Rock Crushing Installation**
**For Use During Concurrent (Same and Separate Owner) Operations**

**Project Number:** 2008-08-066  
**County, CSTR:** Phelps County (S21, T37N, R8W)  
**Primary Unit Size:** 200 tph  
**Distance to Nearest Property Boundary:** 1,000 feet  

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

<table>
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<tr>
<th>Date</th>
<th>Melrose Quarry Rock-Crushing Plant 161-0034 Project # 2008-08-066</th>
<th>Melrose Quarry Asphalt Plant 161-0034 Permit #0498-013</th>
<th>Installation Name: Plant ID: Permit #:</th>
<th>Installation Name: Plant ID: Permit #:</th>
<th><strong>²</strong>Background PM$_{10}$ Level (µg/m$^3$)</th>
<th><strong>³</strong>TOTAL PM$_{10}$ Level (µg/m$^3$)</th>
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<tr>
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<td>Date: Daily Production (tons) Ambient Impact Factor (µg/m$^3$/ton)</td>
<td>Ambient Impact Factor (µg/m$^3$) Daily Production (tons)</td>
<td>Ambient Impact Factor (µg/m$^3$/ton)</td>
<td>Daily PM$_{10}$ Impact (µg/m$^3$)</td>
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**Note 1:** The Daily PM$_{10}$ Impact (µg/m$^3$) for the asphalt and rock crushing plant is calculated by multiplying the Daily Production (tons) by the matching Ambient Impact Factor. The Daily PM$_{10}$ Impact (µg/m$^3$) for other installations owned by Melrose Quarry and Asphalt, LLC can be obtained from the operators of these plants.

**Note 2:** Background PM$_{10}$ Level (µg/m$^3$) is from Haul Roads and Stockpiles.

**Note 3:** 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.
Project Number: 2008-08-066  
County, CSTR: Phelps County (S21, T37N, R8W)  
Primary Unit Size: 200 tph  
Distance to Nearest Property Boundary: 1,000 feet  

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

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<th>Month</th>
<th>Monthly Production (tons)</th>
<th>Composite PM$_{10}$ Emission Factor (lbs/ton)</th>
<th>¹Monthly PM$_{10}$ Emissions (lbs)</th>
<th>²Monthly PM$_{10}$ Emissions (tons)</th>
<th>³12-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 eleven (11) months. A total of less than 15 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. Jim Steiner  
Director of Operations  
Melrose Quarry and Asphalt  
12599 State Route CC  
Rolla, MO 65401

RE: New Source Review Permit - Project Number: 2008-08-066

Dear Mr. Steiner:

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

Operation in accordance with the conditions and requirements in your permit, the New Source Review application submitted for project 2008-08-066, and your amended operating permit, if required, is necessary for continued compliance. Please review your amended operating permit, as it will contain all applicable requirements for your asphalt plant, including any special conditions from your New Source Review permit.

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

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

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

KH:cwyl

Enclosures

c: Southeast Regional Office  
PAMS File: 2008-08-066  
Permit Number: