STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

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

Permit Number: 032014-008
Project Number: 2013-12-013
Installation ID: 097-0091

Parent Company: APAC-Missouri, Inc.

Parent Company Address: P.O. Box 23910, Overland Park, KS 66283

Installation Name: APAC-Missouri, Inc. (Plant 4178)

Installation Address: 4325 County Road 19, Joplin, MO 64801

Location Information: Jasper County, S27 T28N R32W

Application for Authority to Construct was made for:
Changing the status of portable asphalt plant APAC-Missouri PORT-0093 to a stationary asphalt plant. 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.

MAR 25 2014

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 devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department’s Air Pollution Control Program of the anticipated date of startup of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. 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 startup 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 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 Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) 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. Best Management Practices Requirement
   APAC-Missouri, Inc. (Plant 4178) shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

2. Ambient Air Impact Limitation
   A. APAC-Missouri, Inc. (Plant 4178) shall not cause an exceedance of the NAAQS for PM$_{10}$ of 150.0 µg/m$^3$ 24-hour average in ambient air.
   B. APAC-Missouri, Inc. (Plant 4178) shall demonstrate compliance with Special Condition 2.A using Attachment A and Attachment B or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. APAC-Missouri, Inc. (Plant 4178) shall account for the impacts from other sources of PM$_{10}$ as instructed in the attachments.

3. Annual Emission Limit
   A. APAC-Missouri, Inc. (Plant 4178) shall emit less than 40.0 tons of SO$_2$ in any 12-month period from the entire installation.
   B. APAC-Missouri, Inc. (Plant 4178) shall demonstrate compliance with Special Condition 3.A using Attachment C or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

4. Moisture Content Testing Requirement
   A. APAC-Missouri, Inc. (Plant 4178) shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.
   B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
   C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
   D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the APAC-Missouri, Inc. (Plant 4178) main office within 30 days of completion of the required test.

F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 4.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, APAC-Missouri, Inc. (Plant 4178) shall either:
   1) Apply for a new permit to account for the revised information, or
   2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within ten days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.

G. In lieu of testing, APAC-Missouri, Inc. (Plant 4178) may obtain test results that demonstrate compliance with the moisture content in Special Condition 4.A from the supplier of the aggregate.

5. Control Device Requirement-Baghouse
   A. APAC-Missouri, Inc. (Plant 4178) shall control emissions from the drum dryer (EP-4) using a baghouse as specified in the permit application.

   B. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources employees may easily observe them.

   C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

   D. APAC-Missouri, Inc. (Plant 4178) shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours when the plant is in operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

   E. APAC-Missouri, Inc. (Plant 4178) shall maintain a copy of the baghouse manufacturer’s performance warranty on site.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

F. APAC-Missouri, Inc. (Plant 4178) shall maintain an operating and maintenance log for the baghouses which shall include the following:
   1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

6. Minimum Distance to Property Boundary Requirement
   The primary emission point shall be located at least 250 feet from the nearest property boundary.

7. Record Keeping Requirement
   APAC-Missouri, Inc. (Plant 4178) shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources personnel upon request.

8. Reporting Requirement
   APAC-Missouri, Inc. (Plant 4178) shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.
APAC-Missouri, Inc. (Plant 4178)  Complete: December 11, 2013
4325 County Road 19
Joplin, MO 64801

Parent Company:
APAC-Missouri, Inc.
P.O. 23910
Overland Park, KS 66283

Jasper County, S27 T28N R32W

PROJECT DESCRIPTION

APAC–Missouri, Inc. is changing the status of their portable asphalt plant (PORT-0093) to a stationary asphalt plant (APAC-Missouri, Inc. (Plant 4178)) at their current location of 4325 County Road 19 near Joplin, MO. The County Road 19 site (097-0091) is located in Jasper County and currently there are no other plants located at the site. APAC-Missouri, Inc. (Plant 4178) is a drum mix asphalt plant and has a maximum hourly design rate of 500 tons of asphalt produced per hour. APAC-Missouri, Inc. (Plant 4178) will be powered by electricity provided by the local utility company. The original relocation permit for the County Road 19 site listed a diesel generator as the primary power source for the plant however this is no longer the case. The moisture content of the aggregate is greater than 1.5% therefore the controlled emission factor for all aggregate handling was used. A baghouse is attached to the drum dryer in order to control PM$_{10}$ emissions. APAC-Missouri, (Plant 4178) will be required to submit a basic operating application within 30 days of this permits issuance as stationary asphalt plants are required to have an operating permit. This permit does not supersede APAC-Missouri, Inc. (Plant 4178) portable permit (as PORT-0093). If APAC-Missouri, Inc. (Plant 4178) wishes to relocate to another site, they can do so under permit 042005-021. Due to the change in plant designation, APAC-Missouri, Inc. shall, before submitting its next EIQ, contact the EIQ Unit of the Air Pollution Control Program for instructions regarding emissions reporting. APAC-Missouri, Inc. shall also contact the EIQ Unit of the Air Pollution Control Program for instructions on emissions reporting if it reverts back to operating as a portable plant.

The applicant is using one of the methods described in Attachment AA, “Best Management Practices,” to control emissions from haul roads and vehicular activity areas.
This installation is located in Jasper County, an attainment area for all criteria pollutants.

This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. Hot mix asphalt plant fall under Category 27 where if the installation is subject to an NSPS (Subpart I) that was promulgated prior August 7, 1980. Under Category 27 this installation's major source level is 250 tons per year and fugitive emissions are counted toward major source applicability.

TABLES

The following permits have been issued to APAC-Missouri, Inc. (Plant 4178) as a portable plant (PORT-0093) from the Air Pollution Control Program.

Table 1: Permit History of PORT-0093

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0493-015</td>
<td>Original portable asphalt plant construction permit</td>
</tr>
<tr>
<td>0997-041</td>
<td>Temporary increase in production</td>
</tr>
<tr>
<td>072004-031</td>
<td>Add BMPs</td>
</tr>
<tr>
<td>042005-021</td>
<td>Modification to existing asphalt plant</td>
</tr>
</tbody>
</table>

PORT-0093 also had multiple relocation permits under the construction permit listed above.

The table below summarizes the emissions of this project. The existing potential emissions were taken from construction permit 042005-021G. The existing actual emissions were taken from the previous year's EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions are based on a voluntary limit to avoid dispersion modeling requirements found in 10 CSR 10-6.060 Section (6). The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual emission limit.
Table 2: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>N/D</td>
<td>N/D</td>
<td>213.15</td>
<td>15.49</td>
</tr>
<tr>
<td>PM_{10}</td>
<td>15.0</td>
<td>14.59</td>
<td>0.25</td>
<td>92.45</td>
<td>6.72</td>
</tr>
<tr>
<td>PM_{2.5}</td>
<td>10.0</td>
<td>N/D</td>
<td>0.09</td>
<td>58.86</td>
<td>4.28</td>
</tr>
<tr>
<td>SO_{2}</td>
<td>40.0</td>
<td>2.38</td>
<td>0.07</td>
<td>550.58</td>
<td>&lt;40.00</td>
</tr>
<tr>
<td>NO_{x}</td>
<td>40.0</td>
<td>&lt;40.00</td>
<td>4.64</td>
<td>166.21</td>
<td>12.08</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>1449</td>
<td>1.11</td>
<td>105.33</td>
<td>7.65</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>44.63</td>
<td>4.99</td>
<td>23.38</td>
<td>1.70</td>
</tr>
<tr>
<td>GHG (CO_{2}e)</td>
<td>75,000 / 100,000</td>
<td>N/D</td>
<td>N/D</td>
<td>445,674</td>
<td>72,307</td>
</tr>
<tr>
<td>GHG (mass)</td>
<td>0.0 / 100.0 / 250.0</td>
<td>N/D</td>
<td>N/D</td>
<td>444,135</td>
<td>72,057</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>10.0/2.0^b</td>
<td>0.92</td>
<td>N/D</td>
<td>6.98</td>
<td>1.13</td>
</tr>
<tr>
<td>2-methylnapthalene^c</td>
<td>10.0/0.01^b</td>
<td>&lt;0.27</td>
<td>N/D</td>
<td>0.37</td>
<td>0.06</td>
</tr>
<tr>
<td>Lead Compounds</td>
<td>10.0/0.01^b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.03</td>
<td>0.005</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>25.0</td>
<td>3.45</td>
<td>3.45</td>
<td>22.50</td>
<td>3.65</td>
</tr>
</tbody>
</table>

N/D = Not Determined

aExisting Potential Emissions taken from construction permit 042005-021G
bSMAL
c2-methylnapthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

Table 3: Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NAAQS/RAL (µg/m³)</th>
<th>Averaging Time</th>
<th>aMaximum Modeled Impact (µg/m³)</th>
<th>Limited Impact (µg/m³)</th>
<th>Background (µg/m³)</th>
<th>bDaily Limit (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>cPM_{10} (same)</td>
<td>150.0</td>
<td>24-hour</td>
<td>196.57</td>
<td>130.00</td>
<td>20.0</td>
<td>8,332</td>
</tr>
<tr>
<td>bPM_{10} (separate)</td>
<td>150.0</td>
<td>24-hour</td>
<td>N/A</td>
<td>100.0</td>
<td>50.0</td>
<td>6,714</td>
</tr>
<tr>
<td>2-methylnapthalene</td>
<td>23.0</td>
<td>24-hour</td>
<td>0.62</td>
<td>0.43^b</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2-methylnapthalene</td>
<td>2.3^d</td>
<td>Annual</td>
<td>0.10</td>
<td>0.02^b</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

^aModeled impact at maximum capacity with controls
^bIndirect limit based on compliance with NAAQS.
^cSolitary operation or operation with other plants that are owned by APAC-Missouri, Inc.
^dOperation with other plants that are not owned by APAC-Missouri, Inc.

The plant’s drum dryer (EP-4) was modeled using the AERSCREEN screen modeling software. The stack characteristic entered into the modeled are listed in Table 3.

Table 4: AERSCREEN Input Parameters

<table>
<thead>
<tr>
<th>Equipment Description</th>
<th>Stack Height (m)</th>
<th>Stack Inside Diameter (m)</th>
<th>Stack Gas Exit Velocity (m/s)</th>
<th>Stack Gas Exit Temperature (K)</th>
<th>Dispersion Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drum Dryer (EP-4)</td>
<td>6.86</td>
<td>1.16</td>
<td>21.15</td>
<td>407.0</td>
<td>Rural</td>
</tr>
</tbody>
</table>
EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition (AP-42).

Emissions from the drum mix asphalt plant were calculated using emission factors from AP-42 Section 11.1 “Hot Mix Asphalt Plants,” April 2004. SO2 emissions were calculated using the SO2 emission factors from AP-42 Section 1.3 “Fuel Oil Combustion,” September 1998 and assuming half of the sulfur up to 0.1 pound per ton of product is absorbed into the product. The asphalt plant is controlled by a baghouse, so the fabric filter controlled emission factor was used to calculate PM10 emissions. Emissions from plant load-out were calculated using predictive equations found in AP-42 Table 11.1-14. Default values were used for asphalt volatility and mix temperature. Emissions from the asphalt heater were calculated using emission factors from AP-42 Section 1.3. Emissions from aggregate handling were calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004. The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5% by weight.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006. A 90% control efficiency for PM and PM10 and a 40% control efficiency for PM2.5 were applied to the emission calculations for the use of BMPs. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate is 1.5% by weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program’s Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet.”

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 3. The Air Pollution Control Program requires an AAQIA of PM10 for all asphalt, concrete and rock-crushing plants regardless of the level of PM10 emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program’s generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS or RAL for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant’s production is limited to ensure compliance with the standard.
This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20 µg/m³ of PM_{10} in accordance with the Air Pollution Control Program’s BMPs interim policy.

OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how APAC-Missouri, Inc. (Plant 4178) shall demonstrate compliance with the NAAQS.

- When no other plants are located at this site APAC-Missouri, Inc. must calculate the daily impact of APAC-Missouri, Inc. (Plant 4178) and limit the total impact to not exceed the NAAQS using Attachment A.

- When plants that are owned by APAC-Missouri, Inc., which are referred to as same owner plants, are located at the site, APAC-Missouri, Inc. must calculate the daily impact of each plant and limit the total impact of all plants to not exceed the NAAQS using Attachment A.

- When plants that are not owned by APAC-Missouri, Inc., which are referred to as separate owner plants, are located at the site, APAC-Missouri, Inc. must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by APAC-Missouri, Inc. that are operating at the site. This total is limited to not exceed the NAAQS. APAC-Missouri, Inc. will limit the total impact of all plants they own and operate at the site to 100.0 µg/m³ when any plants they do not own are located at the site. APAC-Missouri, Inc. (Plant 4178) is not permitted to operate with any plant that is not owned by APAC-Missouri, Inc. that has a separate owner background greater than 30.0 µg/m³. During this scenario, APAC-Missouri, Inc. (Plant 4178) shall use Attachment B to demonstrate compliance with the NAAQS.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of SO₂ are conditioned below de minimis levels. Other pollutants are proportionately reduced to de minimis levels.

APPLICABLE REQUIREMENTS

APAC-Missouri, Inc. (Plant 4178) 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. For a complete list of applicable requirements for your installation, please consult your operating permit.
GENERAL REQUIREMENTS
- **Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110.**

- A Basic Operating Permit application is required for this installation within 30 days of commencement of operations.

- **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 10-6.165**

SPECIFIC REQUIREMENTS
- 40 CFR 60 Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities" applies to the equipment.

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.

- **Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260**

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.

Gerad Fox
New Source Review Unit
PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 10, 2013, received December 11, 2013, designating APAC-Missouri, Inc. as the owner and operator of the installation.

### Ambient Impact Tracking Sheet

**For Solitary and Same Owner Operations**

APAC-Missouri, Inc. (Plant 4178)  097-0091

Project Number: 2013-12-013

This sheet covers the period from ____________________ to ____________________ (Copy as needed)

(Month, Day Year)  (Month, Day Year)

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily Production (tons)</th>
<th>Impact Factor (µg/m³/ton)</th>
<th>Impact¹ (µg/m³)</th>
<th>Impact² (µg/m³)</th>
<th>Impact³ (µg/m³)</th>
<th>Background (µg/m³)</th>
<th>Total Impact³ (µg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example</strong></td>
<td>2,724</td>
<td>0.0156</td>
<td>42.5</td>
<td>10.2</td>
<td>N/A</td>
<td>N/A</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>0.0156</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20.0</td>
</tr>
</tbody>
</table>

¹Calculate the impact for 097-0091 by multiplying the daily production by the impact factor.

²Input the impact for any plants owned by APAC-Missouri, Inc. that are operating on the site.

³Calculate the total impact by adding the applicable impacts and background. A total of 150.0 µg/m³ or less is necessary for compliance.
**Attachment B: Ambient Impact Tracking Sheet**

*For Separate Owner Operation*

APAC-Missouri, Inc. (Plant 4178) 097-0091  
Project Number: 2013-12-013

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

<table>
<thead>
<tr>
<th>Date</th>
<th>APAC-Missouri, Inc. (Plant 4178) 097-0091 Project#: 2013-12-013</th>
<th>Same Owner Plant</th>
<th>Same Owner Plant</th>
<th>Separate Owner Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily Production (tons)</td>
<td>Impact Factor (µg/m³/ton)</td>
<td>Impact¹ (µg/m³)</td>
<td>Impact² (µg/m³)</td>
</tr>
<tr>
<td><strong>Example</strong></td>
<td>2,852</td>
<td>0.0149</td>
<td>42.5</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0149</td>
<td>30.0</td>
<td>20.0</td>
<td></td>
</tr>
</tbody>
</table>

¹ Calculate the impact for 097-0091 by multiplying the daily production by the impact factor.

² Input the impact for any plants owned by APAC-Missouri, Inc. that are operating on the site.

³ Calculate the total impact by adding the applicable impacts and backgrounds. A total of 150.0 µg/m³ or less is necessary for compliance.
Attachment C: SO₂ Annual Emissions Tracking Sheet
APAC-Missouri, Inc. (Plant 4178) 097-0091
Project Number: 2013-12-013
Permit Number:

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

<table>
<thead>
<tr>
<th>Month</th>
<th>Production (tons)</th>
<th>Emission Factor (lb/ton)</th>
<th>Monthly Emissions¹ (lbs)</th>
<th>Monthly Emissions² (tons)</th>
<th>12-Month Total Emissions³ (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>9,600</td>
<td>0.25</td>
<td>2,400.0</td>
<td>1.2</td>
<td>14.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹Multiply the monthly production by the emission factor.
²Divide the monthly emissions (lbs) by 2000.
³Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 40.0 tons of SO₂ is necessary for compliance.
Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. Pavement
   A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
   B. Maintenance and 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 shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

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

3. Application of Water-Documented Daily
   A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
   B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
   C. 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.
   D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rational for not watering (e.g. freezing conditions or not operating).
   E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.
ABBREVIATIONS AND ACRONYMS

% ............ percent
°F .......... degrees Fahrenheit
acfm ......... actual cubic feet per minute
BACT ....... Best Available Control Technology
BMPs ...... Best Management Practices
Btu........... British thermal unit
CAM ........ Compliance Assurance Monitoring
CAS .......... Chemical Abstracts Service
CEMS ....... Continuous Emission Monitor System
CFR ....... Code of Federal Regulations
CO .......... carbon monoxide
CO₂ .......... carbon dioxide
CO₂e ...... carbon dioxide equivalent
COMS ....... Continuous Opacity Monitoring System
CSR ........ Code of State Regulations
dscf .......... dry standard cubic feet
EIQ .......... Emission Inventory Questionnaire
EP .......... Emission Point
EPA ........ Environmental Protection Agency
EU .......... Emission Unit
fps .......... feet per second
ft ............ feet
GACT ....... Generally Available Control Technology
GHG ......... Greenhouse Gas
gpm .......... gallons per minute
gr ........... grains
GWP .......... Global Warming Potential
HAP ........ Hazardous Air Pollutant
hr .......... hour
hp ............ horsepower
lb ........... pound
lbs/hr .... pounds per hour
MACT ...... Maximum Achievable Control Technology
µg/m³ .... micrograms per cubic meter
m/s ......... meters per second
Mgal ...... 1,000 gallons
MW .......... megawatt
MHDR .... maximum hourly design rate
MMBtu..... Million British thermal units
MMCF ...... million cubic feet
MSDS ...... Material Safety Data Sheet
NAAQS .... National Ambient Air Quality Standards
NESHAPs .. National Emissions Standards for Hazardous Air Pollutants
NOₓ ......... nitrogen oxides
NSPS ...... New Source Performance Standards
NSR ........ New Source Review
PM ........... particulate matter
PM₂.₅ ....... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ ...... particulate matter less than 10 microns in aerodynamic diameter
ppm ....... parts per million
PSD ....... Prevention of Significant Deterioration
PTE .......... potential to emit
RACT ...... Reasonable Available Control Technology
RAL .......... Risk Assessment Level
SCC .......... Source Classification Code
SCC .......... Source Classification Code
SCC .......... Source Classification Code
SIC .......... Standard Industrial Classification
SIP .......... State Implementation Plan
SMAL ....... Screening Model Action Levels
SOₓ .......... sulfur oxides
SO₂ .......... sulfur dioxide
tph ........ tons per hour
tpy .......... tons per year
VMT ........ vehicle miles traveled
VOC .......... Volatile Organic Compound
Ms. Diane Tucker  
EHS Manager  
APAC-Missouri, Inc. (Plant 4178)  
P.O. 23910  
Overland Park, KS 66283

RE: New Source Review Permit - Project Number: 2013-12-013

Dear Ms. Tucker:

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 with 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 Gerad Fox, 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 attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:gfk

Enclosures

c: Southwest Regional Office

PAMS File: 2013-12-013

Permit Number: