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: 052011-007
Project Number: 2010-12-031
Installation ID: 017-0020

Parent Company: ASA Asphalt, Inc
Parent Company Address: P.O. Box 159, Advance, MO 63730
Installation Name: Arab Stone, Inc
Installation Address: Highway 51 South, Zalma, MO 63787
Location Information: Bollinger County, S17, T28N, R9E

Application for Authority to Construct was made for:
The addition of a 50 ton per hour rock-crushing 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.

EFFECTIVE DATE: MAY 16 2011
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 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 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 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.”

Site ID Number: 017-0020
Site Name: Arab Stone, Inc
Site Address: Highway 51 South Zalma, MO 63787
Site County: Bollinger S17, T28N, R9E

1. Superseding Condition
   The conditions of this permit supersede Special Condition 1, Special Condition 2 and Special Condition 6 found in the previously issued construction permit 1097-004A from the Air Pollution Control Program.

2. Best Management Practices (BMPs) Requirement
   Arab Stone, Inc shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.

3. Ambient Air Impact Limitation
   A. Arab Stone, Inc shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for PM$_{10}$ of 150.0 µg/m$^3$ 24-hour average in ambient air.
   B. Arab Stone, Inc shall demonstrate compliance with Special Condition 3.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form. Arab Stone, Inc shall account for the impacts from other sources of PM$_{10}$ as instructed in Attachment B.

4. Moisture Content Testing Requirement
   A. Arab Stone, Inc shall verify that the moisture content of the processed rock is greater than or equal to 1.5% 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.
**SPECIAL CONDITIONS:**
The permittee is authorized to construct and operate subject to the following Special Conditions:

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 Arab Stone, Inc 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, Arab Stone, Inc 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 Air Pollution Control Program Compliance Assistance section within 10 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, Arab Stone, Inc may obtain test results that demonstrate compliance with the moisture content in Special Condition 4.A from the supplier of the aggregate.

5. **Annual Emission Limit for Canica Plant**
   A. All equipment permitted under construction permit 1097-004A, known as the Canica Plant, shall not emit no more than 29.49 tons per year of particulate matter less than ten microns in aerodynamic diameter (PM$_{10}$) per year.

   B. Arab Stone, Inc shall demonstrate compliance with Special Condition 5.A using Attachment C or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

6. **Minimum Distance to Property Boundary Requirement**
   The primary emission point (EP-33) shall be located at least 200 feet from the nearest property boundary.

7. **Primary Equipment Requirement**
   Arab Stone, Inc shall process all rock through the primary crusher (EP-33). Bypassing the primary crusher is prohibited.

8. **Record Keeping Requirement**
   Arab Stone, Inc 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.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following Special Conditions:

9. Reporting Requirement
Arab Stone, Inc 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.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2010-12-031
Installation ID Number: 017-0020
Permit Number:

Arab Stone, Inc
Highway 51 South
Zalma, MO 63787

Parent Company:
ASA Asphalt, Inc
P.O. Box 159
Advance, MO 63730

Bollinger County, S17, T28N, R9E

PROJECT DESCRIPTION

Arab Stone, Inc, herein referred to as Arab Stone, operates an existing rock-crushing plant, which is referred to as the Canica Plant and is located in Zalma, Missouri. This plant is rated at 200 tons per hour. Arab Stone has requested for authority to construct an additional rock-crushing plant at this site. This additional plant, referred to as the Terex Plant, is rated at 50 tons per hour. The Terex Plant is designed to be a portable plant, but Arab Stone will operate it permanently at this site. This plant is powered by one non-road engine, which is located on the rock-crushing plant and serves the dual purpose of powering and transporting the rock-crushing plant. This non-road engine was not included in calculating the emissions of the Terex Plant. A permit is being issued to the Terex Plant because the potential uncontrolled PM$_{10}$ emissions are 1.41 pounds per hour, which exceeds the 1.0 pound per hour exemption level found in 10 CSR 10-6.061, Construction Permit Exemptions (3)(A)3.A.

This installation is a minor source for PM$_{10}$ and operates under a basic operating permit (Project # 2007-04-079). The Canica Plant and the Terex Plant will operate independently of each other. The Canica Plant was permitted under Permit # 1097-004A, which refers to two conflicting 24-hour PM$_{10}$ emission rate limits – 117 pounds per a 24-hour period and 161.60 pounds per a 24-hour period. It is believed the intended 24-hour PM$_{10}$ emission rate limit is 161.6 pounds per a 24-hour period (29.49 tons per year). To correct this discrepancy, the emissions tracking sheet for this plant’s annual PM$_{10}$ emissions has been revised and the emissions from this plant shall be recorded on Attachment C of this permit. The PM$_{10}$ emissions from the Canica Plant shall not exceed 29.49 tons per year.

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 Bollinger County, an attainment area for all criteria pollutants. Also, this installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

**TABLES**

The equipment associated with the Terex Plant is listed in Table 1.

**Table 1: Emission Points of Project**

<table>
<thead>
<tr>
<th>Emission Point (EP)</th>
<th>Emission Description</th>
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</thead>
<tbody>
<tr>
<td>EP – 33</td>
<td>Impact Crusher</td>
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<tr>
<td>EP – 35</td>
<td>Conveyor</td>
</tr>
<tr>
<td>EP – 22</td>
<td>Storage Pile – Load In</td>
</tr>
<tr>
<td>EP – 24</td>
<td>Storage Pile – Vehicular Activity</td>
</tr>
<tr>
<td>EP – 25</td>
<td>Storage Pile – Load Out</td>
</tr>
<tr>
<td>EP – 32</td>
<td>Haul Road</td>
</tr>
</tbody>
</table>

The following permits have been issued to Arab Stone from the Air Pollution Control Program.

**Table 2: Permit History**

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1097-004A</td>
<td>Amendment to Special Conditions</td>
</tr>
<tr>
<td>1097-004</td>
<td>Addition of conveyor and bin and increase in production</td>
</tr>
<tr>
<td>1196-018</td>
<td>Replacement of crusher</td>
</tr>
<tr>
<td>1195-019</td>
<td>Crushed stone operation</td>
</tr>
</tbody>
</table>

Table 3 summarizes the emissions of this project. The existing actual emissions were taken from a previous year's Emission Inventory Questionnaire (EIQ). The potential emissions of the application represent the emissions of new equipment and activities assuming continuous operation (8760 hours per year) of the Terex Plant.

**Table 3: Emissions Summary (tons per year)**

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>De Minimis Level</th>
<th>1Existing Potential Emissions</th>
<th>Existing Actual Emissions (2009 EIQ)</th>
<th>²Potential Emissions of the Application</th>
<th>Conditioned Potential Emissions of the Application</th>
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</thead>
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<tr>
<td>PM₁₀</td>
<td>15.0</td>
<td>44.85</td>
<td>9.66</td>
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<td>PM₂.₅</td>
<td>10.0</td>
<td>17.36</td>
<td>N/D</td>
<td>1.06</td>
<td>N/A</td>
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<tr>
<td>SOₓ</td>
<td>40.0</td>
<td>N/A</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NOₓ</td>
<td>40.0</td>
<td>N/A</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>0.10</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>25.0</td>
<td>N/A</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Applicable; N/D = Not Determined

¹ Existing Potential Emissions for the existing equipment were calculated during this project and excludes haul road and wind erosion emissions.

² Includes site specific haul road and storage pile emissions.
Table 4: Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>1NAAQS (µg/m³)</th>
<th>Averaging Time</th>
<th>2Maximum Modeled Impact of Terex Plant (µg/m³)</th>
<th>2Maximum Modeled Impact of Canica Plant (µg/m³)</th>
<th>Limited Impact of All Plants Owned by ASA Asphalt, Inc. (µg/m³)</th>
<th>Background (µg/m³)</th>
<th>3Daily Production Limit of All Plants Owned by Arab Stone (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM₁₀</td>
<td>150.0</td>
<td>24-hour</td>
<td>6.59</td>
<td>179.71</td>
<td>130.0</td>
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<tr>
<td>PM₁₀</td>
<td>150.0</td>
<td>24-hour</td>
<td>N/A</td>
<td>N/A</td>
<td>39.94</td>
<td>110.06</td>
<td>2,180</td>
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</table>

1 National Ambient Air Quality Standards (NAAQS)
2 Modeled impact at maximum capacity with controls
3 Indirect limit for the all plants owned by Arab Stone at this installation to comply with the NAAQS for PM₁₀.
4 Operation of only plants that are owned by Arab Stone at this site. Background emissions include 20.0 µg/m³ for haul roads and stock piles.
5 Operation with other plants that are not owned by Arab Stone. Background emissions include 20.0 µg/m³ for haul roads and stock piles and 90.06 µg/m³ for emissions from separate owner plants.

EMISSIONS CALCULATIONS

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

Emissions from the rock-crushing equipment 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% weight. Emissions from the diesel generator were calculated using emission factors from AP-42 Section 3.3 “Gasoline and Diesel Industrial Engines,” October 1996.

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 is 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 “Aggregate Handling and Storage Piles,” November 2006. The moisture content of the aggregate is 1.5% 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 4. 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 SCREEN3. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (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. The concentration of PM$_{10}$ from the generator was calculated by using SCREEN3.

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 20.0 µg/m$^3$ 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 Arab Stone shall demonstrate compliance with the NAAQS.

- When only the Terex Plant and Canica Plant are located at the site, which is referred to as solitary operation, Arab Stone must calculate the daily impact of each plant and limit the total impact of both plants below the NAAQS.

- When other plants that are owned by Arab Stone, which are referred to as same owner plants, are located at the site, Arab Stone must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS.

- When plants that are not owned by Arab Stone, which are referred to as separate owner plants, are located at the site, Arab Stone must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Arab Stone that are operating at the site. This total is limited below the NAAQS. Arab Stone will limit the total impact of all plants they own and operate at the site to 39.94 µg/m$^3$ when any plants they do not own are located at the site. Arab Stone is not permitted to operate with any plant that is not owned by Arab Stone that has a separate owner background greater than 90.06 µg/m$^3$.

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 PM$_{10}$ are below de minimis levels.
APPLICABLE REQUIREMENTS

Arab Stone, Inc 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.** The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required on April 1 for paper submittals or May 1 for MOEIS submittals for the previous year's emissions. Payment of emission fee is required by June 1.

- **Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170**

- **Restriction of Emission of Odors, 10 CSR 10-6.165**

SPECIFIC REQUIREMENTS

- **40 CFR 60, New Source Performance Standards (NSPS), Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants."**

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) 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.

________________________________  ________________________________
Daronn Williams                 Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 2, 2010, received December 13, 2010, designating ASA Asphalt, Inc as the owner and operator of the installation.
- Southeast Regional Office Site Survey, dated December 20, 2010.
**Attachment A: Ambient Impact Tracking Sheet**

**Solitary Operation & Same Owner Operation**

Arab Stone, Inc (017-0020)

Project Number: 2010-12-031

---

**Site Name:** Arab Stone, Inc  
**Site Address:** Highway 51 South, Zalma, MO 63787  
**Site County:** Bollinger County, S17, T28N, R9E

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

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<th>Daily Production (tons)</th>
<th>Impact Factor (µg/m³/ton)</th>
<th>Impact¹ (µg/m³)</th>
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<th>Background (µg/m³)</th>
<th>Total Impact³ (µg/m³)</th>
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</tr>
</tbody>
</table>

¹ Calculate the impact for each plant at 017-0020 by multiplying their respective daily production by their respective impact factor.  
² Input the impact for any additional plants owned by ASA Asphalt, Inc that is operating on the site.  
³ Calculate 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: Annual Tracking Sheet

**Separate Owner Operation**

Arab Stone, Inc (017-0020)  
Project Number: 2010-12-031

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**Site Name:** Arab Stone, Inc  
**Site Address:** Highway 51 South, Zalma, MO 63787  
**Site County:** Bollinger County, S17, T28N, R9E

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

<table>
<thead>
<tr>
<th>Date</th>
<th>Arab Stone, Inc 017-0020 Terex Plant</th>
<th>Arab Stone, Inc 017-0020 Canica Plant</th>
<th>Same Owner Plant</th>
<th>Separate Owner Plant</th>
<th>Back-</th>
<th>Total Impact$_4$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily Production (tons)</td>
<td>Impact Factor (µg/m$^3$ton)</td>
<td>Impact$_1$ (µg/m$^3$)</td>
<td>Daily Production (tons)</td>
<td>Impact Factor (µg/m$^3$ton)</td>
<td>Impact$_1$ (µg/m$^3$)</td>
</tr>
<tr>
<td>Example</td>
<td>1,000</td>
<td>0.00547</td>
<td>5.47</td>
<td>900</td>
<td>0.03404</td>
<td>30.64</td>
</tr>
<tr>
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<td>0.00547</td>
<td>0.03404</td>
<td>90.06</td>
<td>20.0</td>
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<td>0.00547</td>
<td>0.03404</td>
<td>90.06</td>
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<td>90.06</td>
<td>20.0</td>
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<td></td>
<td>0.00547</td>
<td>0.03404</td>
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<td>20.0</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>0.00547</td>
<td>0.03404</td>
<td>90.06</td>
<td>20.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Calculate the impact for each plant at 017-0020 by multiplying their respective daily production by their respective impact factor.  
2. Input the impact for any additional plants owned by ASA Asphalt, Inc that is operating on the site.  
3. The maximum impact for plants not owned by ASA Asphalt, Inc that is operating on the site.  
4. Calculate the total impact by adding the applicable impacts and background. Include the separate owner plant impact if a plant that is not owned by ASA Asphalt, Inc is located at the site. A total of **150.0 µg/m$^3$** or less is necessary for compliance.
Attachment C: Annual PM$_{10}$ Tracking Sheet
Canica Plant Only
Arab Stone, Inc (017-0020)
Project Number: 2010-12-031

Site Name: Arab Stone, Inc
Site Address: Highway 51 South, Zalma, MO 63787
Site County: Bollinger County, S17, T28N, R9E

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 Emissions$^1$ (lbs)</th>
<th>Monthly Emissions$^2$ (tons)</th>
<th>12-Month Total Emissions$^3$ (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>60,000</td>
<td>0.0514</td>
<td>3,072</td>
<td>1.54</td>
<td>1.54</td>
</tr>
<tr>
<td>Example</td>
<td>65,000</td>
<td>0.0514</td>
<td>3,328</td>
<td>1.66</td>
<td>3.20</td>
</tr>
</tbody>
</table>

$^1$ Multiply the monthly production by the emission factor.
$^2$ Divide the monthly emissions (lbs) by 2000.
$^3$ Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 29.49 tons is necessary for compliance per Permit # 1097-004A.
Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable 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\(^1\) 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 manufacture’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.

\(^1\)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.)
Attachment BB: Emission Calculations of Entire Installation
Arab Stone, Inc (017-0020)
Terex Plant Only
2010-12-03

<table>
<thead>
<tr>
<th>Emission Point (EP)</th>
<th>Description</th>
<th>1MHDR</th>
<th>MHDR Units</th>
<th>2PM₁₀ EF EF Units</th>
<th>Control Eff.%</th>
<th>Emissions (lb/hr)</th>
<th>3Modeling Rate (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP - 33</td>
<td>Impact Crusher</td>
<td>50.0000</td>
<td>Tons</td>
<td>0.002400</td>
<td>Tons</td>
<td>77.50</td>
<td>0.0270</td>
</tr>
<tr>
<td>EP - 35</td>
<td>Conveyor</td>
<td>50.0000</td>
<td>Tons</td>
<td>0.001100</td>
<td>Tons</td>
<td>95.82</td>
<td>0.0023</td>
</tr>
<tr>
<td>EP - 22</td>
<td>Storage Pile - Load In</td>
<td>50.0000</td>
<td>Tons</td>
<td>0.004125</td>
<td>Tons</td>
<td>0.00</td>
<td>0.2063</td>
</tr>
<tr>
<td>EP - 23</td>
<td>Storage Pile - Wind Erosion</td>
<td>1.5000</td>
<td>VMT</td>
<td>0.089166</td>
<td>VMT</td>
<td>0.00</td>
<td>0.1337</td>
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<tr>
<td>EP - 24</td>
<td>Storage Pile - Vehicular Activity</td>
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<td>Tons</td>
<td>0.00</td>
<td>0.5770</td>
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<tr>
<td>EP - 25</td>
<td>Storage Pile - Load out</td>
<td>50.0000</td>
<td>Mgal</td>
<td>0.004125</td>
<td>Mgal</td>
<td>0.00</td>
<td>0.2063</td>
</tr>
<tr>
<td>EP - 32</td>
<td>Haul Road</td>
<td>0.0631</td>
<td>Tons</td>
<td>1.732400</td>
<td>Tons</td>
<td>90.00</td>
<td>0.0109</td>
</tr>
</tbody>
</table>

1 Maximum Hourly Design Rate (MHDR)
2 Emission Factor (EF)
3 The Modeling Rate is the emission rate scaled to the daily hours of operation at the MHDR allowed by the permit.
Mr. Roger Poythress  
President  
Arab Stone, Inc  
P.O. Box 159  
Advance, MO 63730

RE: New Source Review Permit - Project Number: 2010-12-031

Dear Mr. Poythress:

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 amended 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 Daronn Williams, at the Departments’ Air Pollution Control Program, P.O. Box 176, Jefferson City, MO  65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:dwl

Enclosures

c: Southeast Regional Office  
PAMS File: 2010-12-031

Permit Number: