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: 06 2011-013
Project Number: 2010-09-052
Installation ID: PORT-0674

Parent Company: Jacomo Trucking, Inc.
Parent Company Address: 11030 Hickman Mills Drive, Kansas City, MO 64134
Installation Name: Jacomo Trucking, Inc.
Installation Address: Bannister and Pryor Road, Lee's Summit, MO 64063
Location Information: Jackson County (S35, T48N, R32W)

Application for Authority to Construct was made for:

The installation of a new portable asphalt shingles grinding 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.

JUN 28 2011
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 devices 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.
GENERAL SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. “Conditions required by permitting authority.”

1. Equipment Identification Requirement
   Jacomo Trucking, Inc. shall maintain easily read permanent markings on each component of the portable shingles grinding plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the plant.

2. Equipment Requirement
   A. The equipment installed by Jacomo Trucking, Inc. shall be a Peterson Crusher Model 4700B.
   B. The use of the Peterson Crusher Model 4700B shall be verified during PM$_{10}$ routine inspections performed by the Air Pollution Control Program.

3. Relocation of Portable Shingles Grinding Plant
   A. Jacomo Trucking, Inc.’s portable shingles grinding plant shall not be operated at any location longer than 24 consecutive months.
   B. A complete “Portable Source Relocation Request” application must be submitted to the Air Pollution Control Program prior to any relocation of this portable shingles grinding plant.
      1) If the portable plant is moving to a site previously permitted, and if the circumstances at the site have not changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
      2) If the portable plant is moving to a new site, or if circumstances at the site have changed, then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.

4. Record Keeping Requirement
   Jacomo Trucking, Inc. shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources’ personnel upon request.

5. Reporting Requirement
   Jacomo Trucking, 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.
SITE SPECIFIC 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.”

PORT ID Number: PORT-0674
Site ID Number: 095-0296
Site Name: Jacomo Trucking, Inc.
Site Address: Bannister and Pryor Road, Lee’s Summit, MO 64063
Site County: Jackson County (S35, T48N, R32W)

1. Best Management Practices Requirement
   Jacomo Trucking 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.

2. Ambient Air Impact Limitation
   A. Jacomo Trucking, Inc. shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM₁₀) of 150.0 µg/m³ 24-hour average in ambient air.

   B. Jacomo Trucking, Inc. shall demonstrate compliance with special condition 2.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form. Jacomo Trucking, Inc. shall account for the impacts from other sources of PM₁₀ as instructed in Attachment A.

3. Annual Emission Limit – Nitrogen Oxides (NOₓ)
   A. Jacomo Trucking, Inc.’s portable shingles grinding plant shall emit less than 40.0 tons of NOₓ in any 12-month period from the entire installation.

   B. Jacomo Trucking, Inc. shall demonstrate compliance with special condition 3.A. using Attachment B or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

4. Restriction on Use of Shingles
   A. Jacomo Trucking, Inc. is permitted to process only Recycled Asphalt Shingles (RAS) at this plant. RAS consists of asphalt roll roofing, cap sheets and shingles, including underlayments, only. Roofing debris including, but not limited to, coal tar epoxy and rubber materials, are not permitted.
SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

B. Jacomo Trucking, Inc. is not permitted to process any material containing asbestos. Any unidentified RAS shall be rejected. Any material suspected to contain asbestos shall be rejected. All visible material not part of the shingles, including, but not limited to, extra wood, paper, metals and plastics are to be removed before processing and the material must not have been in contact with any hazardous substances.

5. Concurrent Operations Restrictions
Jacomo Trucking, Inc. shall not operate with any plants that it does not share some common ownership with.

6. Restriction on the Use of Diesel Engines
Jacomo Trucking, Inc. shall only operate its diesel engines to power equipment for production.

7. Minimum Distance to Property Boundary Requirement
The primary emission point, which is the shingles grinder (EP-01), shall be located at least 320 feet from the nearest property boundary.
Jacomo Trucking, Inc.
Bannisters and Pryor Road
Lee's Summit, MO 64063

Parent Company:
Jacomo Trucking, Inc.
11030 Hickman Mills Drive
Kansas City, MO 64134

Jackson County (S35, T48N, R32W)

PROJECT DESCRIPTION

Jacomo Trucking, Inc. proposes to install a new asphalt shingles grinder at its location in Jackson County (S35, T48N, R32W). The shingles grinder has a maximum hourly design rate of 100 tons per hour and is powered by a 630 horsepower diesel engine/generator. The new plant consists of the following equipment/activities.

Table 1: List of Equipment/Activities

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Equipment Description</th>
</tr>
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<tbody>
<tr>
<td>EP-01</td>
<td>Shingles Grinder</td>
</tr>
<tr>
<td>EP-02</td>
<td>Discharge Conveyor</td>
</tr>
<tr>
<td>EP-03</td>
<td>Delivery Haul Road</td>
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<tr>
<td>EP-04</td>
<td>Sales Haul Road</td>
</tr>
<tr>
<td>EP-05, 06, 07, 08</td>
<td>Storage Pile Activities (Load-In, Load-Out, Vehicular Activity, Wind Erosion)</td>
</tr>
<tr>
<td>EP-10</td>
<td>630 Horsepower Diesel Engine/Generator</td>
</tr>
</tbody>
</table>

This facility is portable and therefore, no operating permit is required. The portable plant may be changed to a stationary plant if the facility applies for and receives a new construction permit from the Air Pollution Control Program.

Currently, there is a stationary asphalt plant, operating under Superior Bowen Asphalt Company, LLC and a stationary RAP crushing plant, operating under Jacomo Trucking, Inc. located at this site. Jacomo Trucking, Inc. has submitted an application (Project no. 2011-01-053) to change the RAP crushing plant to a RAP screening plant by removing all the crushers and to make the stationary plant portable. This project is still being processed by the Air Pollution Control Program. In the past, plants operating under Superior Bowen Asphalt Company, LLC and Jacomo Trucking, Inc. were considered separate installations on separate sites.
However, it was discovered, during the review for this project that these plants have some common ownership and that Jacomo Trucking, Inc. plants will be providing material for the Superior Bowen Asphalt Company’s asphalt plant. Therefore, the Air Pollution Control Program now considers plants under both companies to be on the same site and the Air Quality Ambient Impact Analysis for the site should include impact from all of the plants. Superior Bowen Asphalt has since applied for an amendment to its existing permit (032009-005) to allow for concurrent operations. The amendment request is given project number 2010-12-032 and is still under review by the Air Pollution Control Program. The shingles grinding plant is not permitted to operate with any plants that do not have common ownership.

The applicant will use 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 Jackson County, a maintenance area for ozone and an attainment area for all other criteria pollutants. 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. No permits have been issued to the portable shingles grinding plant from the Air Pollution Control Program.

Subpart III, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," of the New Source Performance Standards (NSPS) and Subpart ZZZZ, “National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines,” applies to the diesel engine/generator. According to the Code of Federal Regulations (CFR) 40 CFR 1068.30, a diesel engine, designed to be portable (i.e. contains wheels, skids, carrying handles, etc.), but that is not self-propelled, should be considered stationary if it remains at a site for more than 12 consecutive months. Since this plant is permitted to be at a single site for 24 consecutive months, these engines should be considered stationary and the subparts apply.

Subpart OOO, “Standards of Performance for Nonmetallic Mineral Processing Plants,” of the NSPS applies to crushing plants in which the sizes of the nonmetallic minerals are reduced. Jacomo Trucking, Inc. will be installing a Peterson Crusher Model 4700B, which was originally designed to compost vegetative matter and is suitable for shredding, but not crushing, recycled asphalt shingles. The nonmetallic content of the recycled shingles is not large enough for this grinder to reduce in size, as the shredder’s grates’ openings are larger than the sand grains contained in the shingles. Since there will be no reductions in size of the nonmetallic minerals embedded in the asphalt shingles, subpart OOO does not apply to this facility. Verification that the facility installed a Peterson Crusher Model 4700B will be done through routine site inspections performed by the Air Pollution Control Program.

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and storage piles, are site specific and should not vary from site to site. The existing actual emissions are not applicable because the plant is new. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year).
Table 2: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>De Minimis Level/ SMAL</th>
<th>Existing Actual Emissions (tons)</th>
<th>Potential Emissions of the Process Equipment (tons)</th>
<th>¹Potential Emissions of the Application (tons)</th>
<th>²Conditioned Potential Emissions (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>N/A</td>
<td>1.2</td>
<td>4.10</td>
<td>2.6</td>
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<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/A</td>
<td>1.41</td>
<td>8.87</td>
<td>5.53</td>
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<tr>
<td>SO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>8.10</td>
<td>8.10</td>
<td>5.05</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>64.17</td>
<td>64.17</td>
<td>&lt;40.0</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>1.64</td>
<td>1.64</td>
<td>1.02</td>
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<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>17.05</td>
<td>17.05</td>
<td>10.6</td>
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<tr>
<td>Total HAPs</td>
<td>25.0</td>
<td>N/A</td>
<td>0.03</td>
<td>0.03</td>
<td>0.02</td>
</tr>
</tbody>
</table>

N/A = Not Applicable
¹ Includes site specific haul road and storage pile emissions
² NO$_x$ conditioned potential emissions based on limit to avoid screening analysis. Other pollutants proportionally reduced.

Table 3: Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>¹NAAQS/ RAL (µg/m$^3$)</th>
<th>Averaging Time</th>
<th>²Maximum Modeled Impact (µg/m$^3$)</th>
<th>³Limited Impact (µg/m$^3$)</th>
<th>Background (µg/m$^3$)</th>
<th>⁴Daily Limit (tons/day)</th>
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</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>150.0</td>
<td>24-hour</td>
<td>10.65</td>
<td>N/D</td>
<td>20.0</td>
<td>2,400</td>
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</tbody>
</table>

N/D – Not Determined
¹ National Ambient Air Quality Standards (NAAQS)
² Modeled impact at maximum capacity with controls
³ The plants at the site are permitted to balance production to maintain NAAQS compliance. The listed daily limit of 2,400 tons per day is based on the maximum amount allowed if the plant is operating by itself.
⁴ Solitary operation or operations with same owner plants.

The plant’s 630 horsepower diesel engine was modeled using the SCREEN3 screen modeling software. The stack characteristics entered into the model are listed in Table 3.

Table 4: SCREEN3 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>630 hp diesel engine</td>
<td>2.53</td>
<td>0.31</td>
<td>28.0</td>
<td>972</td>
<td>Rural</td>
</tr>
</tbody>
</table>

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 shingles 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 oil within the shingles is expected to minimize emissions. Emissions from the diesel...
engines/generators were calculated using emission factors from AP-42, Section 3.4, “Large Stationary Diesel and All Stationary Dual-fuel 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. The moisture content used for the predictive equation is 1.5% by weight because of the oil content in the shingles. 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 PM$_{10}$ for all asphalt, concrete, rock-crushing and shingles grinding plants regardless of the level of PM$_{10}$ emissions if a permit is required. An AAQIA is required for NO$_x$, SO$_x$ and CO if their emissions exceed their respective de minimis levels and for each individual HAP if its emission exceed its 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. In cases where the plant is providing material for a highway project, the ambient impact is evaluated in accordance with a memorandum issued by the Air Pollution Control Program titled “Permitting Asphalt/Concrete Plants for Temporary Highway Projects,” dated April 10, 2000. This memorandum states that air quality should be analyzed at the nearest residence or location where the public could reasonably expected to be found instead of all ambient air. This practice generally allows for a less restrictive daily production level while protecting the public.

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/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 by itself or with same owner plants at the site as long as the NAAQS is not exceeded. Jacomo Trucking, Inc. must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS. The plant is not permitted to operate with separate owner plants.

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 all pollutants are conditioned below de minimis levels.

**APPLICABLE REQUIREMENTS**

Jacomo Trucking, 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 June 1 for the previous year's emissions.

- No Operating Permit is required for this installation.

- **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**


- 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.

Chia-Wei Young
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September 23, 2010, received September 27, 2010, designating Jacomo Trucking as the owner and operator of the installation.


- Kansas City Regional Office Site Survey, dated October 20, 2010.
**Attachment A: Ambient Impact Tracking Sheet**

Jacomo Trucking PORT-0674
Project Number: 2010-09-052

Site Name: Jacomo Trucking, Inc.
Site Address: Bannister and Pryor Road, Lee’s Summit, MO 64063
Site County: Jackson County (S35, T48N, R32W)

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

<table>
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<tr>
<th>Date</th>
<th>Jacomo Trucking PORT-0674 Shingles Grinding Operation Project 2010-09-052</th>
<th>Same Owner Plant</th>
<th>Same Owner Plant</th>
<th>Separate Owner Plant</th>
<th>Background (µg/m³)</th>
<th>Total Impact ³ (µg/m³)</th>
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<tr>
<td></td>
<td>Daily Production (tons)</td>
<td>Impact Factor (µg/m³/ton)</td>
<td>Impact ¹ (µg/m³)</td>
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<td>20.0</td>
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</tr>
</tbody>
</table>

¹Calculate the impact for each operation by multiplying the daily production by the impact factor.
²Input the impact for any same owner plant.
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: NOx Annual Emissions Tracking Sheet

**Jacomo Trucking Co., Inc., PORT-0674**

**Project Number:** 2010-09-052

**Site Name:** Jacomo Trucking, Inc.

**Site Address:** Bannister and Pryor Road, Lee’s Summit, MO 64063

**Site County:** Jackson County (S35, T48N, R32W)

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

**Month** | **Monthly Production (tons)** | **Emission Factor (lbs/ton)** | **Monthly Emissions**<sup>1</sup> (lbs) | **Monthly Emissions**<sup>2</sup> (tons) | **Total 12-Month Emissions**<sup>3</sup> (tons)
---|---|---|---|---|---
*Example* | 55,000 | 0.1465 | 8,057.5 | 4.03 | 18.5

1. Calculate the Monthly Emissions (lbs) by multiplying the Monthly Production (ton) by the emission Factor (lbs/ton)
2. Calculate the Monthly Emissions (tons) by dividing the Monthly Emissions (lbs) by 2,000 lbs/ton.
3. Calculate the Total 12-Month Emissions (tons) by adding the monthly emissions (tons) to monthly emissions from the previous eleven months. A total of less than **40.0 tons per year** indicates compliance.
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 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.

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.)
<table>
<thead>
<tr>
<th>Description</th>
<th>^1MHDR</th>
<th>MHDR Units</th>
<th>^2PM\textsubscript{10} EF</th>
<th>EF Units</th>
<th>Control Eff.%</th>
<th>Emissions (lb/hr)</th>
<th>^3Modeling Rate (lb/hr)</th>
</tr>
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<tbody>
<tr>
<td>Asphalt Shingles Grinder</td>
<td>100.000</td>
<td>Tons</td>
<td>0.002400</td>
<td>Lbs/ton</td>
<td>77.50</td>
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<td>Conveyor Discharge Belt</td>
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<td>Tons</td>
<td>0.001100</td>
<td>Lbs/ton</td>
<td>95.82</td>
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<td>Lbs/VMT</td>
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<td>Storage Pile Load In</td>
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<td>Lbs/ton</td>
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<td>0.4125</td>
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<td>Storage Pile Load Out</td>
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<td>0.004125</td>
<td>Lbs/ton</td>
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<td>Storage Pile Wind Erosion</td>
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<td>Lbs/Acre.hr</td>
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<td>Storage Pile Vehicular Activity</td>
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<td>Lbs/ton</td>
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<td>Grinder Diesel Engine</td>
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<td>Mgal</td>
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<td>Lbs/Mgal</td>
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</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 MHDR allow by the permit.
Mr. Keith Davenport  
Manager  
Jacomo Trucking  
11030 Hickman Mills Drive  
Kansas City, MO 64134  

RE: New Source Review Permit - Project Number: 2010-09-052  

Dear Mr. Davenport:  

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 and your new source review permit application 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 Chia-Wei Young, at the Department’s 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:cyl  

Enclosures  

K: Kansas City Regional Office  
PAMS File: 2010-09-052  

Permit Number: