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: 092009-004 Project Number: 2009-07-051
Parent Company: TAMKO Building Products, Inc.
Parent Company Address: 601 North High Street, Joplin, MO 64801
Installation Name: TAMKO Building Products, Inc. - High Street Installation
Installation Address: 601 North High Street, Joplin, MO 64801
Location Information: Jasper County, S2, T27N, R33W

Application for Authority to Construct was submitted for the installation of a pneumatic transfer system. The new system will consist of a 2400 Cubic Feet per Minute (CFM) blower capable of transferring up to 20 tons of limestone per hour in an 8 inch line. 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.

SEP - 8 2009
EFFECTIVE DATE
DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES
STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control 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 sources(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources’ personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.
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.”*

TAMKO Building Products, Inc. - High Street Installation
Jasper County, S2, T27N, R33W

1. **Baghouse Conditions**
   
   **A.** TAMKO Building Products, Inc. - High Street Installation shall control emissions from the Limestone Storage tank EU0160 using baghouse CD16A as specified in the documents submitted for this permit. The baghouses shall be operated and maintained in accordance with the installation’s Control Device Operation Procedure. 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 the Department of Natural Resources’ employees may easily observe them. Replacement filters for the baghouses shall be kept on hand or on order at all times. If the filters are ever changed of under emergency conditions (not during preventive maintenance), there shall be a period of time when the filters will be on order and not “on hand.” 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).

   **B.** TAMKO Building Products, Inc. - High Street Installation shall monitor and record the operating pressure drop across the baghouses at least once a day within each 24-hour calendar day period. The operating pressure drop shall be maintained within the design conditions specified by the installation’s Control Device Operation Procedure.

   **C.** TAMKO Building Products, Inc. - High Street Installation 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.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

2. **Lock out Device.**
The installation will be installing a lock out device that will prohibit the truck unload line from operating at the same time as the transfer line. This will ensure that no increase in emissions has occurred at tank EU0160 and the applicability of Subpart UU is not in doubt as no emission increase has occurred.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (Section 5) REVIEW  
Project Number: 2009-07-051  
Installation ID Number: 097-0013  
Permit Number:  
TAMKO Building Products, Inc. Complete: August 14, 2009  
High Street Installation  
601 North High Street  
Joplin, MO 64801  
Parent Company:  
TAMKO Building Products, Inc.  
601 North High Street  
Joplin, MO 64801  
Jasper County, S2, T27N, R33W  
REVIEW SUMMARY  
- TAMKO Building Products, Inc. - High Street Installation has applied to install pneumatic transfer system. The new system will consist of a 2400 Cubic Feet per Minute (CFM) blower capable of transferring up to 20 tons of limestone per hour in an 8 inch line.  
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.  
- Subpart UU of the New Source Performance Standards (NSPS) does not apply to as no increase in omissions occurred to the Limestone Storage Tank (EU0160).  
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.  
- One baghouse (CD16A) is being used to control the PM$_{10}$ emissions from the Laminate Roofing Line (LRL) (EU0160) storage tank  
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of pollutant are below de minimis levels.  
- This installation is located in Jasper County, an attainment area for all criteria air pollutants.  
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].  
- Ambient air quality modeling was not performed since controlled emissions of the
application are below *de minimis* levels.

- Emission testing is not required per Subparts OOO, UU and 40 CFR 60.

- Because the potential to emit of this installation is above 100.0 tons per year, a Part 70 Operating Permit application revision is required for this installation within 1 year of equipment startup.

- Approval of this permit is recommended with special conditions.

**INSTALLATION DESCRIPTION**

TAMKO Roofing Products, Inc. is an existing asphalt roofing (shingles) production installation located at Joplin, Missouri in Jasper County. The installation has received twelve (12) construction permits previously from the Air Pollution Control Program and has submitted a Part 70 operating permit on January 5, 2007 that is currently under review.

The following permits have been issued to TAMKO Building Products, Inc. - High Street Installation from the Air Pollution Control Program.

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Permit Number</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-01-033</td>
<td>072009-007</td>
<td>Installation of rock grinding mills and equipment.</td>
</tr>
<tr>
<td>2008-11-049</td>
<td>062009-001</td>
<td>A Section (5) permit for the construction of a metal shingle fabrication line.</td>
</tr>
<tr>
<td>2008-12-052</td>
<td>022009-006</td>
<td>A Section (3) temporary permit for the construction of two portable road maintenance melters and a temporary laminant applicator.</td>
</tr>
<tr>
<td>1998-03-065</td>
<td>0499-005</td>
<td>A Section (5) permit for the construction of a spunbond production line for the manufacture of membranes and re-enforced membranes.</td>
</tr>
<tr>
<td>1998-02-0198</td>
<td>0598-017</td>
<td>A Section (5) permit for the construction of a pilot plant for the shredding and grinding of tabs and waste asphalt shingles.</td>
</tr>
<tr>
<td>2260-0013-019</td>
<td>1096-020</td>
<td>A Section (5) permit issued on October 15, 1996 for the replacement of two (2) horizontal asphalt storage tanks/natural gas fired heaters with two (2) vertical asphalt storage tanks with new natural gas heaters (i.e. Tank #13 and Tank #15).</td>
</tr>
<tr>
<td>2260-0013-015</td>
<td>0493-004</td>
<td>A Section (5) permit issued on April 6, 1993 for the construction of two (2) underground vertical storage tanks.</td>
</tr>
<tr>
<td>2260-0013-012</td>
<td>0292-004</td>
<td>A Section (5) permit issued on February 4, 1992 for the replacement of three (3) asphalt storage tanks and two (2) natural gas fired heaters with two (2) vertical asphalt storage tanks with two (2) new natural gas heaters.</td>
</tr>
<tr>
<td>2260-0013-10/11 &amp; 2260-0013-017</td>
<td>0889-001 &amp; 0889-001A</td>
<td>A Section (5) permit originally issued on August 4, 1989 to construct a AWA fire retardant production system. The amendment to this permit allowed the use of an additional raw material in the above process.</td>
</tr>
<tr>
<td>2260-0013-005</td>
<td>0184-001A to 0184-011A</td>
<td>A Section (5) permit issued on January 1984 for the construction of a new asphalt roofing production line. The permit required testing in accordance with NSPS Subpart UU, <em>Standards for Performance for Asphalt Roofing Plants</em>.</td>
</tr>
</tbody>
</table>
PROJECT DESCRIPTION

TAMKO Building Products, Inc. - High Street Installation will be modifying their Joplin, Missouri installation (097-0013) by installing a new pneumatic transfer system consisting of a 2400 CFM blower capable of transferring up to 20 tons of limestone per hour in an 8 inch line. The current pneumatic transfer system has a 1000 CFM blower with a 3 inch diameter line capable of transferring up to 3 tons of limestone per hour and will be removed from the installation. Additionally, crushed limestone can be transferred by delivery truck into the storage tank at a rate of 33 tons per hour. Because the application is only for crushed stone, transferring other materials were not considered for emissions.

The installation will be installing a lock out device that will prohibit the truck unload line from operating at the same time as the transfer line. This will ensure that no increase in emissions has occurred at tank EU0160 and the applicability of Subpart UU is not in doubt as no emission increase has occurred.

This site was inspected for de-bottlenecking emissions associated with this project. It was determined that the project is not de-bottlenecking as the equipment is largely a batch operated continuous process. The rate of filling the tank is independent of the emptying rate. The emptying rate is dependent of production rate and is not related to tank capacity. It is related to process capacity or production rate which is largely dependant on the ability of the base material ability to adsorb the coating.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Table 11.12-2, Pneumatic Unloading to Elevated Storage Silos, January 1995. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.
Table 3: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>PM₁₀</td>
<td>15.0</td>
<td>128.990</td>
<td>50.41</td>
<td>7.64</td>
<td>2.01</td>
<td>40.3</td>
</tr>
<tr>
<td>SOx</td>
<td>40.0</td>
<td>0.360</td>
<td>5.86</td>
<td>1.60</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NOx</td>
<td>40.0</td>
<td>81.000</td>
<td>74.81</td>
<td>4.32</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>52.310</td>
<td>225.8</td>
<td>59.16</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>16.460</td>
<td>17.0</td>
<td>8.14</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs (Combined)</td>
<td>25.0</td>
<td>0.260</td>
<td>1.266</td>
<td>N/D</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Xylene (HAP)</td>
<td>10.0</td>
<td>N/A</td>
<td>1.117</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>EthylBenzene (HAP)</td>
<td>10.0</td>
<td>N/A</td>
<td>0.149</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hexane (HAP)</td>
<td>10.0</td>
<td>N/D</td>
<td>1.29</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Polycyclic Organic Matter (HAP)</td>
<td>0.01</td>
<td>N/D</td>
<td>0.110</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Applicable, N/D Not Determined.

¹ Previous Existing Potential Emissions obtained from permit Operating Permit 0499-005.
² Existing Potential Emissions obtained from construction permit number 072009-007.

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 controlled emissions of PM₁₀ are below de minimis levels.

APPLICABLE REQUIREMENTS

TAMKO Building Products, Inc. - High Street Installation 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.

- **Operating Permits**, 10 CSR 10-6.065

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

- **Restriction of Emission of Visible Air Contaminants**, 10 CSR 10-6.220

- **Restriction of Emission of Odors**, 10 CSR 10-3.090

- **Restriction of Emission of Visible Air Contaminants**, 10 CSR 10-3.080

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.

____________________________  Date
Tim Hines
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated, August 19, 2009 received, August 21 2009, designating TAMKO Building Products, Inc. as the owner and operator of the installation.

- Supplemental information submitted on July 01, 2009.


- Southwest Regional Office Site Survey, dated February 6, 2009.
Mr. Shannon Lenker  
General Manufacturing Manager  
TAMKO Building Products, Inc. - High Street Installation  
601 North High Street  
Joplin, MO 64801  

RE: New Source Review Permit - Project Number: 2009-07-051  

Dear Mr. Lenker:  

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions 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 Tim Hines, 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:thl  

Enclosures  

c: Southwest Regional Office  
PAMS File: 2009-07-051  

Permit Number: