



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: 062009-001 Project Number: 2008-11-049
Parent Company: TAMKO Building Products, Incorporated
Parent Company Address: 601 North High Street, Joplin, MO 64801
Installation Name: TAMKO Building Products, Incorporated
Installation Address: 601 North High Street, Joplin, MO 64801
Location Information: Jasper County, S2, T27N, R33W

Application for Authority to Construct was made for:
Installation of a metal shingle fabrication line. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

JUN - 1 2009

EFFECTIVE DATE

Steven J. Jelen for SJK

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 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 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

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2008-11-049
Installation ID Number: 097-0013
Permit Number:

TAMKO Building Products, Incorporated
601 North High Street
Joplin, MO 64801

Complete: November 26, 2008

Parent Company:
TAMKO Building Products, Incorporated
601 North High Street
Joplin, MO 64801

Jasper County, S2, T27N, R33W

REVIEW SUMMARY

- TAMKO Building Products, Incorporated has applied for the authority to install a metal shingle fabrication line.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are Xylene (All Isomers) and Ethyl Benzene (CAS# 100-41-4).
- 40 CFR 60 Subpart UU, *Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture*, of the New Source Performance Standards (NSPS), applies to the facility but does not apply to the project. None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- 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.
- A small dust collector is being used to control particulate mist and dust generated by the metal surface grinding activity. This activity is not considered a significant source of potential emissions.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of criteria pollutants and hazardous air pollutants 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 potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment.
- An application to amend your Part 70 Operating Permit is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

TAMKO Building Products, Incorporated (TAMKO) is an existing asphalt roofing shingles production facility located in Joplin, Missouri, in Jasper County. TAMKO is considered a minor source for construction permitting and is above major source levels for operating permits. The facility was issued a Part 70 operating permit from the Air Pollution Control Program in 2002.

The following construction permits have been issued to TAMKO from the Air Pollution Control Program.

Table 1: Construction Permits

Permit Number	Description
0184-001	De minimis permit for the installation of a new asphalt roofing production facility subject to NSPS UU
0889-001	De minimis permit for the installation of a fire retardant production operation
0292-004	De minimis permit for the construction of two hot asphalt storage tanks
0493-004	De minimis permit for the construction of two vertical asphalt storage tanks
0889-001A	An amendment to 0889-001 which allowed a new raw material
1096-020	De minimis permit for the replacement of two hot asphalt storage tanks
0598-017	De minimis permit for the installation of a waste asphalt shingle shredding and grinding operation
0499-005	De minimis permit for the installation of a polyethylene terephthalate (PET) fiber mat production operation. According to the applicant, this project was never constructed.

PROJECT DESCRIPTION

In 2004, TAMKO installed a metal shingle fabrication process consisting of stamping and forming equipment, tool die repair equipment, and four (4) 400,000 Btu per hour natural gas fired space heaters. At the time of construction, TAMKO understood the mechanical metal forming equipment, the tool die repair equipment, and the space

heaters to be exempt from construction permitting rules. However, during a U.S. EPA Region 7 compliance audit conducted on July 24, 2008, EPA requested a copy of a determination request for the metal shingle fabrication process. Following the inspection, TAMKO prepared and submitted a determination request containing updated information for the operation. The Air Pollution Control Program reviewed the potential emissions and determined that a permit was required for this project.

The metal shingle fabrication line includes a main stamping line and five accessory forming lines operating independently. The main stamping line uses a 400 ton press to stamp out high volume metal shingle parts. The accessory forming lines produce low volume specialty pieces. Mineral spirits containing less than 3.0% Xylene and less than 0.4% Ethyl Benzene is used as a lubricant for the main stamping line and the five accessory lines. The mineral spirits for the main stamping line is applied with a spray applicator (EU162A) consisting of three spray nozzles. The maximum design rate for the spray applicator (EU162A) was determined by the facility to be 0.9 gallons per hour. The mineral spirits for the accessory lines is applied with a wiping applicator (EU162B) that distributes the lubricant over the part. The maximum design rate for the wiping applicator (EU162B) was determined by the facility to be 0.408 gallons per hour. The facility determined the maximum design rates using actual production usage, during a period when the operations were running continuously, plus a 20% safety factor.

The tool die repair equipment includes lathes, drills, mills, and surface grinders. A small mist and dust collector is used to control emissions of mists and dusts from the surface grinders. The tool die repair activities are not expected to be a significant source of potential emissions.

EMISSIONS/CONTROLS EVALUATION

The potential emissions from the stamping oil lubricant were determined by mass balance assuming 100% emitted. The emission factors used in the analysis of the natural gas fired space heaters were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.4 *Natural Gas Combustion* (July 1998). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) Table 2 provides an emissions summary for this project.

It was identified during the review of this project that the existing potential emissions from the previous construction permit do not match the existing potential emissions reported in the January 4, 2007 Title V operating permit renewal application. The disparity in the potential emissions is most likely due to 1) changes in emission factors, 2) the exclusion of grandfathered emissions, and 3) the change in reporting emissions of Particulate Matter less than 10 microns in diameter (PM₁₀) instead of total Particulate Matter (PM). Therefore, the existing potential emissions have been updated to be consistent with the existing potential emissions submitted with the Title V Operating Permit renewal application.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Previous Existing Potential Emissions ¹	Corrected Existing Potential Emissions ²	Existing Actual Emissions (2006 &2007 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	128.990	40.281	8.82435	0.049	N/A
SOx	40.0	0.360	5.858	1.92835	0.004	N/A
NOx	40.0	81.000	74.170	5.64775	0.644	N/A
VOC	40.0	52.310	188.529	75.6997	37.274	N/A
CO	100.0	16.460	66.839	10.2131	0.541	N/A
HAP (Formaldehyde)	10.0	0.260	N/D	N/D	N/A	N/A
HAP (Xylene)	10.0	N/A	N/D	N/A	1.117	N/A
HAP (EthylBenzene)	10.0	N/A	N/D	N/A	0.149	N/A
HAP (Hexane)	10.0	N/D	1.278	N/D	0.012	N/A
HAP (Polycyclic Organic Matter)	0.01	N/D	0.110	N/D	N/A	N/A
HAPs (Combined)	25.0	N/D	N/D	1.35555	1.266	N/A

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

¹Existing potential emissions obtained from construction permit number 0499-005

²Existing potential emissions calculated from the Title V operating permit renewal application, dated January 4, 2007. The potential emissions of the equipment installed with this project were subtracted from the potential emissions reported in the application

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 below de minimis levels.

APPLICABLE REQUIREMENTS

TAMKO Building Products, Incorporated 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*

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400*
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating, 10 CSR 10-3.060*

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 without special conditions.

Kathi Jantz
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated November 25, 2008, received November 26, 2008, designating TAMKO Building Products as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Regional Office Site Survey, dated December 12, 2008

Mr. Shannon Lenker
General Manufacturing Manager
TAMKO Building Products
601 North High Street
Joplin, Missouri 64801

RE: New Source Review Permit - Project Number: 2008-11-049

Dear Mr. Lenker:

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 areverse 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 Kathi Jantz, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:kjk

Enclosures

c: Southwest Regional Office
PAMS File: 2008-11-049

Permit Number: