

PERMIT BOOK

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: **07 2 0 1 2 - 0 1 2**

Project Number: 2012-04-054
Installation Number: 097-0094

Parent Company: TAMKO Building Products, Inc.

Parent Company Address: PO Box 1404, Joplin, MO 64801

Installation Name: TAMKO Building Products, Inc.

Installation Address: 3001 Newman Road, Joplin, MO 64801

Location Information: Jasper County, S31, T28N, R32W

Application for Authority to Construct was made for:
Installation of chopper and blower system for the fiberglass mat trim. 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.

JUL 26 2012

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 Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. 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 these air contaminant sources.

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.

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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.
Jasper County, S31, T28N, R32W

1. Control Device Requirement-Baghouse
 - A. TAMKO Building Products, Inc. shall control emissions from the fiberglass trim chop system using a dust collector (EP 2-9B) as specified in the permit application.
 - B. The dust collector shall be operated and maintained in accordance with the manufacturer's specifications. The dust collector 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.
 - C. Replacement filters for the dust collector shall be kept on hand at all times. The bag(s) shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. TAMKO Building Products, Inc. shall monitor and record the operating pressure drop across the dust collector at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. TAMKO Building Products, Inc. shall maintain an operating and maintenance log for the dust collector 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.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

2. Record Keeping and Reporting Requirements
 - A. TAMKO Building Products, Inc. shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - B. TAMKO Building Products, Inc. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

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

Project Number: 2012-04-054
Installation ID Number: 097-0094
Permit Number:

TAMKO Building Products, Inc.
3001 Newman Road
Joplin, MO 64801

Complete: April 16, 2012

Parent Company:
TAMKO Building Products, Inc.
PO Box 1404
Joplin, MO 64801

Jasper County, S31, T28N, R32W

REVIEW SUMMARY

- TAMKO Building Products, Inc. has applied for authority to install a chopper and blower system for the fiberglass mat trim.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- A baghouse filter is being used to control the PM₁₀ emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of particulate matter (PM), particulate matter less than 10 microns in diameter (PM₁₀) and particulate matter less than 2.5 microns in diameter (PM_{2.5}) are below de minimis levels.
- This installation is located in Jasper County, an attainment area for all 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.

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required as a part of this permit for the new equipment.
- An amendment to your Part 70 Operating Permit application is required for this installation within one year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

TAMKO Building Products, Inc.-Rangeline Plant (herein referred to as TAMKO) is a minor source with regards to construction permits that manufactures roofing products and includes such processes and products as felt mat, glass mat, asphalt coatings and saturates. The operations at the installation include four main manufacturing operations: refinery operations, fiberglass mat manufacturing operations, felt mill no. 1 operations and felt mill no. 2 operations.

The following construction permits have been issued to TAMKO Building Products, Inc.-Rangeline Plant from the Air Pollution Control Program. TAMKO Building Products, Inc.-Rangeline Plant has also received multiple “no permit required” letters from the Air Pollution Control Program. For more information on these determinations consult the Part 70 Operating Permit OP2009-002.

Table 1: Permit History

Permit Number	Description
0393-012	Replace blow still tanks
0594-032	Modifications to the fiberglass mat line
0496-004	25.2 MMBtu/hr natural gas fired boiler
112000-012	RTO installation
062001-004	Replace thermal oxidizer
052010-008	Refinery process change
102010-007	Installation of two new 25.2 MMBtu/hr natural gas fired boilers, which will replace three existing boilers, and the replacement of three tank heater burners.

PROJECT DESCRIPTION

TAMKO is seeking authority to install two chopper units, two blower units, a cyclone separator and one filter system (EP2-9B). The purpose of the new system is to facilitate a more efficient way of baling the excess material cut from the fiberglass mats made upstream by the fiberglass machines (EP2-9).

The main feature of the new baling system is the two new chopper units that will chop the edging trim from each side of the mat sheet in to short pieces. (Currently, they are not chopped up prior to baling.) The fiberglass short pieces are blown through piping to a cyclone separator which sends the fiberglass scraps to the fiberglass scrap baler and the finer particles to a filtration system. After the fiberglass trim is baled and tied, the

bales are then shipped off site for recycling. TAMKO states that the same number of bales will be generated with this system as before and thus, their paved haul roads will not experience increased truck traffic. Therefore, haul roads were not included in this project. Currently, only one to two trucks of bales are shipped out per month.

The maximum amount of trim generated is estimated to be 198.2 pounds per hour. The increases in efficiency of the baling process are not expected to debottleneck the rest of the fiberglass mat line and therefore potential emissions of the project are based only on the new equipment.

EMISSIONS/CONTROLS EVALUATION

PM, PM₁₀ and PM_{2.5} are the only pollutants that will be emitted from the new chopper system. All particulate emissions are expected to come from the filter device. Particulate emissions are based on the flowrate of the dust collector fan and the grain loading of the baghouse which are 1,800 standard cubic feet per minute (scfm) and 0.002 grains per dry standard cubic foot (dscf), respectively.

Two sample tests of the fiberglass dust were collected prior to the filter to determine the dust's particle size distribution. Testing showed that 0.18 percent of the sample volume was less than 11.0 microns in diameter with the balance being less than 74 microns. Assuming that the particle density is the same for all sizes, 0.18 percent of the sample weight is also less than 11.0 microns. Since performance of the filter on the various particulate diameter ranges was not given as a part of the application, a ratio of particle sizes from the given particle size distribution (which is based on the inlet) cannot be applied to the outlet of the filter. However, since the majority of the sample going into the filter is greater than PM₁₀ and the collection efficiency of larger particulates is generally high for filtration devices (greater than 99.5 percent) such as the one shown in the application, and since the particulate potential emissions are relatively low as compared to the de minimis levels, testing of the filtration device will not be required as a part of this permit.

The following table provides an emissions summary for this project. Existing potential emissions were not determined for this permit. In Permit No. 102010-007, the existing potential emissions of all pollutants were stated as being less than major source levels. The last permit (Permit No. 102010-007) added two boilers which replaced three existing boilers. Therefore, existing potential emission are assumed to remain below major source levels after installation of the previously permitted equipment. Existing actual emissions were obtained from the applicant's 2011 Emission Inventory Questionnaire (EIQ). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2011 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	<250.0	N/D	0.14	N/A
PM ₁₀	15.0	<250.0	20.51	0.14	N/A
PM _{2.5}	10.0	<250.0	N/D	0.14	N/A
SO _x	40.0	<250.0	44.03	N/A	N/A
NO _x	40.0	<250.0	31.68	N/A	N/A
VOC	40.0	<250.0	30.03	N/A	N/A
CO	100.0	<250.0	73.86	N/A	N/A
HAPs	10.0/25.0	<250.0	2.22	N/A	N/A

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

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 PM₁₀ are below de minimis levels.

APPLICABLE REQUIREMENTS

TAMKO Building Products, 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
- *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 10-6.165

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.

Susan Heckenkamp
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated April 13, 2012, received April 16, 2012, designating TAMKO Building Products, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Mr. Daniel Hollingshead
General Manager
TAMKO Building Products, Inc.
3001 Newman Road
Joplin, MO 64801

RE: New Source Review Permit - Project Number: 2012-04-054

Dear Mr. Hollingshead:

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 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 Susan Heckenkamp, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:shk

Enclosures

c: Southwest Regional Office
PAMS File: 2012-04-054

Permit Number: