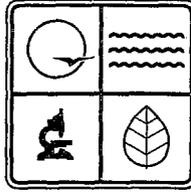


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

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: **122007-002** Project Number: **2007-08-108**

Owner: **Versa-Tech, Inc.**

Owner's Address: **701 Sargent Drive, Fredericktown, MO 63645**

Installation Name: **Versa-Tech, Inc.**

Installation Address: **701 Sargent Drive, Fredericktown, MO 63645**

Location Information: **Madison County, S7, T33N, R7E**

Application for Authority to Construct was made for:

Addition of one new curing silo and one new 250 boiler horse power (bhp) (10.4 million British thermal unit per hour (MMBtu/hr)) natural gas fired boiler. 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 (listed as attachments starting on page 2) are applicable to this permit.

DEC 4 2007

EFFECTIVE DATE

Steven Fuller

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

for JLK

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. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the 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 as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, 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 Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2007-08-108

Versa-Tech, Inc.

701 Sargent Drive, Fredericktown, MO 63645

Versa-Tech, Inc.

701 Sargent Drive, Fredericktown, MO 63645

Madison County, S7, T33N, R7E

Addition of one new curing silo and one new 250 boiler horse power (bhp) (10.4 million British thermal unit per hour (MMBtu/hr)) natural gas fired boiler. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

Project Number: 2007-08-108
Installation ID Number: 123-0022
Permit Number:

Versa-Tech, Inc.
701 Sargent Drive
Fredericktown, MO 63645

Complete: August 11, 2006

Parent Company:
Versa-Tech, Inc.
701 Sargent Drive
Fredericktown, MO 63645

Madison County, S7, T33N, R7E

REVIEW SUMMARY

- Versa-Tech, Inc. has applied for authority to add one new curing silo and one new 250 bph (10.4 MMBtu/hr) natural gas boiler to their existing polystyrene molding plant.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- 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 applies to the proposed equipment. 40 CFR Part 63, Subpart JJJ, *National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins* regulation does not apply to the new equipment as the installation only uses polystyrene and does not manufacture the material.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of volatile organic compounds (VOCs) are below de minimis levels.
- This installation is located in Madison 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 the emissions increases of the application are below de minimis levels.
- Emissions testing is not required for the new equipment.
- A Basic Operating Permit is required for this installation.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

Versa-Tech, Incorporated is a block molder and fabricator of expandable polystyrene for industrial and commercial uses located in Fredericktown, Missouri. The installation is considered to be a minor source of air emissions for New Source Review purposes.

The following permits have been issued to Versa-Tech Incorporated from the Air Pollution Control Program.

Table 1: Previous Construction Permits

Permit Number	Description
102000-012	A Section (6) permit for the construction of a new polystyrene molding plant.
112002-015	A Section (6) permit for the addition of one (1) new polystyrene batch expander to the installation to replace two (2) existing continuous expander units (EP 1)
092006-006	A Section (5) permit for the addition of two (2) new curing silos.

PROJECT DESCRIPTION

Versa-Tech, Incorporated has applied for authority to add one (1) new curing silo to the installation with a capacity of 3,000 pounds of material. This silo will increase the installation's batch size to 18,000 pounds of material. The installation uses the curing silos to form the raw materials, which are first expanded in the expander unit (EP3). VOC emissions occur from the release of pentane during the expansion process. The new silo will debottleneck the process and allow for a higher throughput through the existing expander unit. Because this project debottlenecks the existing sources and VOCs are emitted throughout the process, a potential minus baseline calculation will be used to determine the project emissions increase. Permit 092006-006 was issued for an expansion similar to this project. The Air Pollution Control Program believes these projects should be combined. Therefore, the baseline emissions will be the 24-month average of the actual emissions from the two years preceeding issuance of permit 092006-006 (2004 and 2005). The process time for each batch is equal to 90.5 hours, which includes time needed for expansion, curing, molding, holding, and cutting of the finished product. The new MHDR for the process is equal to 199 pounds of expanded polystyrene product per hour.

In addition to the silo, Versa-Tech, Incorporated is adding a 250 bhp (10.4 MMBtu/hr) natural gas fired boiler and replacing their existing block mold. Replacement of the block mold will not increase the batch expansion processes maximum design rate.

EMISSIONS/CONTROLS EVALUATION

The air pollutant of concern for this project is VOC which is being emitted from the expansion of the polystyrene raw material in the form of pentane. This polystyrene material used in the expansion process does not contain any HAPs as reported on the Material Safety Data Sheet (MSDS). The VOC emission factor was calculated based on a maximum eight percent (8%) pentane content for the expandable polystyrene material to be used in this process as indicated in the MSDS for this material. In addition, the VOC emission factor was adjusted based on a U.S. Environmental Protection Agency (EPA) publication (USEPA 450/3-90-020) which indicates that only eighty five percent (85%) of the pentane is lost during the expansion and molding process. No air pollution control equipment will be used in association with the new equipment.

Emissions from the boiler were calculated using emission factors from 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 are the new potential emissions of the entire batch expansion process and the potential emissions of the new boiler. Baseline emissions are the average actual emissions obtained from Vera-Tech, Incorporated's 2004 and 2005 Emissions Inventory Questionnaire (EIQs). The project emissions increase is the difference of the potential and the baseline emissions. The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Potential Emissions	Baseline	Project Emissions Increase
PM ₁₀	15.0	0.34	N/A	0.34
SO _x	40.0	0.03	N/A	0.03
NO _x	40.0	4.47	N/A	4.47
VOC	40.0	59.52	38.73	20.79
CO	100.0	3.75	N/A	3.75
HAPs	10.0/25.0	N/A	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*. The emissions increase of VOCs is below de minimis levels.

APPLICABLE REQUIREMENTS

Versa-Tech, 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 April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

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.

Michael Mittermeyer
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 8/16/2007, received 8/21/2007, designating Versa-Tech, Inc. as the owner and operator of the installation.
- Southeast Regional Office Site Survey, dated 9/12/2007
- MSDS

Ms. Toni Hotchkiss
Manager of Quality/Safety
Versa-Tech, Inc.
701 Sargent Drive
Fredericktown, MO 63645

RE: New Source Review Permit - Project Number: 2007-08-108

Dear Ms. Hotchkiss:

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 revised 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 Mike Mittermeyer 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 attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:mml

Enclosures

c: Southeast Regional Office
PAMS File: 2007-08-108

Permit Number: