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: 082006-008  Project Number: 2006-08-027

Owner: MiTeK Industries

Owner's Address: 301 Fountain Lakes Industrial Blvd., St. Charles, MO 63301

Installation Name: MiTeK Industries

Installation Address: 301 Fountain Lakes Industrial Blvd., St. Charles, MO 63301

Location Information: St. Charles County, S13, T47, R4

Application for Authority to Construct was made for:

Installation of two (2) 20' x 50' Downdraft paint booths. 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.

AUG 28 2006

EFFECTIVE DATE
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.
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.”

MiTeK Industries
St. Charles County, S13, T47, R4

1. Emission Limitation
   A. MiTek Industries shall not emit Hazardous Air Pollutants (HAPs) in excess of ten (10) tons individually or twenty-five (25) tons combined from the two (2) paint booths (EP01) in any consecutive 12-month period

   B. MiTek Industries shall maintain a record of hazardous air pollutants emitted into the atmosphere from the equipment. Attachment A and Attachment B or equivalent forms approved by the Air Pollution Control Program shall be used for this purpose. MiTek Industries shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used in the paint booth (EP04).

   C. MiTek Industries shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(B) indicate that the source exceeds the limitation of Special Condition Number 1(A).

2. Operational Requirements
   MiTek Industries shall keep all paints and solvents in sealed containers whenever the materials are not in use. MiTek Industries shall provide and maintain suitable, easily read, permanent markings on all paints and solvents containers used with this equipment.

3. Control Device – Panel Filter
   Panel filters must be in use at all times when the paint booths (EP01) is in operation and shall be operated and maintained in accordance with the manufacturer’s specifications.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2006-08-027
Installation ID Number: 193-0229
Permit Number:

MiTeK Industries
301 Fountain Lakes Industrial Blvd.
St. Charles, MO 63301

Complete: August 4, 2006
Reviewed: August 25, 2006

Parent Company:
MiTeK Industries
301 Fountain Lakes Industrial Blvd.
St. Charles, MO 63301

St. Charles County, S13, T47, R4

REVIEW SUMMARY

• MiTeK Industries has applied for authority to install two (2) 20' x 50' Downdraft paint booths.

• Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are xylene and ethyl benzene.

• 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. The proposed MACT regulation, Surface Coating of Miscellaneous Metal Parts and Products, does not apply to this installation since this installation is not a major source of HAP.

• Filter panels are used to control particulate matter (PM) emissions from the paint booths (EP01).

• This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of HAPs are conditioned to below major levels to avoid Section (9) review and potential emissions of other criteria air pollutants are below de minimis levels.

• This installation is located in St. Charles County, a nonattainment area for ozone (O₃) and an attainment area for all other 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 conditioned to below de minimis levels. Furthermore, no screen model is currently available which can accurately predict ambient ozone concentrations caused by this installation’s VOC emissions.

• Emissions testing is not required for the equipment.

• No Operating Permit is required for this installation.

• Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

MiTek Industries is installing a surface coating operation in St. Charles, Missouri. No permits have been issued to MiTek Industries from the Air Pollution Control Program. No Operating Permit is required for this installation.

PROJECT DESCRIPTION

This project is to install two (2) 20’ x 50’ downdraft paint booths. These paint booths will be used to apply surface coatings on various sizes of steel parts and machinery. The paint will be supplied with four primary colors from a paint kitchen. Each color will have it’s own electrostatic paint gun in each booth. One paint gun can be used at a time in each booth. Each paint gun has a maximum flow rate of 13 fluid ounces of paint per minute (4.5 gallons/hour). Based on the maximum design rate and the material safety data sheets (MSDS), potential emissions for the hazardous air pollutant from this project exceed the major source levels. However, MiTek Industries has proposed to keep recording keeping of their material usage in the paint booth to ensure the annual emissions do not exceed 25 tons combined HAPs and 10 tons individual HAP.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in the VOCs and HAPs emissions analysis were developed from the MSDS submitted with the permit application and through the use of mass balances around the process. PM\textsubscript{10} emissions are evaluated based on the solid content of material and transfer efficiency from the spray gun. PM\textsubscript{10} emissions are controlled through the use of a panel filter that is expected to have at least 90.0% control efficiency. Potential emissions of the new equipment were based on the maximum hourly design rate of the equipment assuming continuous operation (8760 hours per year) and the content of air pollutant in the chemicals. Detailed calculations can be found in the enclosed worksheet. The following table provides an emissions summary for this project.
Table 1: Emissions Summary (tons per year)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>6.27</td>
<td>N/A</td>
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<tr>
<td>SOX</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>NOX</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>136.0</td>
<td>**</td>
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<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>86.24</td>
<td>&lt; 25.0</td>
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<tr>
<td>Xylene</td>
<td>10.0</td>
<td>N/A</td>
<td>N/A</td>
<td>51.75</td>
<td>&lt; 10.0</td>
</tr>
<tr>
<td>Ethyl benzene</td>
<td>10.0</td>
<td>N/A</td>
<td>N/A</td>
<td>34.50</td>
<td>&lt; 10.0</td>
</tr>
</tbody>
</table>

*N/A = Not Applicable

**Since potential emissions of combined HAPs and individual HAP are conditioned to 25.0 tons and 10.0 tons per year, respectively, the potential emissions of VOC are indirectly conditioned below de minimis level (40.0 tons).

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 HAPs are conditioned to below major levels to avoid Section (9) review and potential emissions of other criteria air pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

MiTeK Industries 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.

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.

- **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

• *Control of Emissions From Industrial Surface Coating Operations*, 10 CSR 10-5.330.

**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.

Fuad Wadud
Environmental Engineer

**PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

• The Application for Authority to Construct form, dated August 3, 2006, received August 4, 2006, designating MiTeK Industries as the owner and operator of the installation.

• Material Safety Data Sheet (MSDS), provided by the applicant.

• St. Louis Regional Office Site Survey, dated August 10, 2006.
Attachment A: Monthly Combined HAPs Tracking Record

MiTeK Industries
St. Charles County, S13, T47, R4
Project Number: 2006-08-027
Installation ID Number: 193-0229
Permit Number:

This sheet covers the month of _____________ in the year _____________.

Copy this sheet as needed

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2 (a)</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Used, (Name, HAP CAS #)</td>
<td>Amount of Material Used (Include Units)</td>
<td>Density (lbs/gal)</td>
<td>HAP Content (Weight %)</td>
<td>HAP Emissions (Tons)</td>
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(b) Total HAP Emissions Calculated for this Month in Tons:
(c) 12-Month HAP Emissions Total from Previous Month’s Attachment in Tons:
(d) Monthly HAP Emissions Total (b) from Previous Year’s Attachment in Tons:
(e) Current 12-month Total of HAP Emissions in Tons: [(b) + (c) - (d)]

INSTRUCTIONS: Choose appropriate HAP calculation method for units reported:
(a) 1) If usage is in tons - [Column 2] x [Column 4] = [Column 5];
   2) If usage is in pounds - [Column 2] x [Column 4] x [0.0005] = [Column 5];
   3) If usage is in gallons - [Column 2] x [Column 3] x [Column 4] x [0.0005] = [Column 5];
(b) Summation of [Column 5] in Tons;
(c) 12-Month HAP emissions (e) from last month's Attachment A in Tons;
(d) Monthly HAP emissions total (b) from the previous year's Attachment A in Tons;
(e) Calculate the new 12-month combined HAPs emissions total. **A 12-Month HAP emissions total (e) of less than 25 tons indicates compliance.**
**Attachment B: Monthly Individual HAPs Tracking Record**

MiTeK Industries  
St. Charles County, S13, T47, R4  
Project Number: 2006-08-027  
Installation ID Number: 193-0229  
Permit Number:  

HAP Name: ___________________________  CAS No.: _____________  

This sheet covers the month of ___________________ in the year ___________________.  

Copy this sheet as needed  

<table>
<thead>
<tr>
<th>Column 1 (a)</th>
<th>Column 2 (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>List materials from Attachment A which emit this specific HAP (Name, Type)</td>
<td>HAP emissions from Attachment A [Column 5] (in Tons)</td>
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</tbody>
</table>

(c) Total HAP Emissions Calculated for this Month, in Tons:  
(d) 12-Month HAP Emissions Total (f) from Previous Month's Attachment B, in Tons:  
(e) Monthly HAP Emissions Total (c) from Previous Year's Attachment B, in Tons:  
(f) Current 12-month Total of HAP Emissions in Tons: [(c) + (d) - (e)]:  

**INSTRUCTIONS:**  
(a) Individually list each material which emits this specific HAP from the Paint Booths;  
(b) Record the amount of HAP emissions already calculated for Attachment A in [Column 5] in Tons;  
(c) Summation of [Column 5] in Tons;  
(d) Record the previous 12-Month individual HAP emission total (f) from last month's Attachment B, in Tons;  
(e) Record the monthly HAP emission total (c) from previous year's Attachment B, in Tons;  
(f) Calculate the new 12-month individual HAP emissions total. A **12-Month individual HAP emissions total of less than ten (10.0) tons indicates compliance.**
Mr. Max Russel Phinney  
Operations Manager  
MiTeK Industries  
301 Fountain Lakes Industrial Blvd.  
St. Charles, MO 63301  

RE: New Source Review Permit - Project Number: 2006-08-027  

Dear Mr. Phinney:  

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 contact me at (573) 751-4817, or write to the Department of Natural Resources’ Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your attention to this matter.  

Sincerely,  

AIR POLLUTION CONTROL PROGRAM  

Kendall B. Hale  
New Source Review Unit Chief  

KBH: fwk  

Enclosures  

c: St. Louis Regional Office  
PAMS File: 2006-08-027  
Permit Number: