

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: **022017-003**

Project Number: 2016-12-022
Installation Number: 077-0051

Parent Company: **3M Company**

Parent Company Address: **3M Center, Building 0224-05-W-03, Saint Paul, MN 55144**

Installation Name: **3M Springfield**

Installation Address: **3211 East Chestnut Expressway, Springfield, MO 65802**

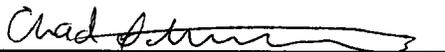
Location Information: **Greene County, S16, T29N, R21W**

Application for Authority to Construct was made for:

First phase of multi-phase permit, where phase 1 is installation of production line ME1 (EU0400). 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.


Prepared by
Chad Stephenson
New Source Review Unit


Director or Designee
Department of Natural Resources

FEB 08 2017

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 Enforcement and Compliance Section of 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 Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 using the contact information below.

Contact Information:
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website:
<http://dnr.mo.gov/regions/>

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."

3M Springfield
Greene County, S16, T29N, R21W

1. Superseding Condition
 - A. The conditions of this permit supersede Special Condition 1 found in the previously issued construction permit 072011-002 issued by the Air Pollution Control Program.

2. Hazardous Air Pollutant (HAP) Emission Limitation
 - A. 3M Springfield shall emit less than 9.9 tons individually or 24.9 tons combined of Hazardous Air Pollutants (HAPs) in any consecutive 12-month period from the entire installation. This limit applies to the HAP emissions from all equipment/ processes installed or permitted at 3M Springfield as of the issuance date of this permit.

 - B. Attachment A, Attachment B and Attachment C of this permit, Attachment A1, Attachment A2, Attachment A3, Attachment A4 and Attachment A5 from Operating Permit No. OP2006-056 or equivalent means, such as electronic methods or equivalent attachments in future operating permit renewals approved by the Air Pollution Control Program, shall be used to demonstrate compliance with Special Conditions 2.A.

3. Record Keeping and Reporting Requirements
 - A. 3M Springfield 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. These records shall include SDS for all materials used.

 - B. 3M Springfield shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

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

Project Number: 2016-12-022

Installation ID Number: 077-0051

Permit Number: 022017 - 003

Installation Address:

3M Springfield
3211 East Chestnut Expressway
Springfield, MO 65802

Parent Company:

3M Company
3M Center, Building 0224-05-W-03
Saint Paul, MN 55144

Greene County, S16, T29N, R21W

REVIEW SUMMARY

- 3M Springfield has applied for authority to install a production line (EU0400). 3M Springfield has requested confidentiality for the maximum design capacity and emission factors.
- The application was deemed complete on December 20, 2016.
- HAP emissions are expected from the proposed equipment. HAPs of concern from this process are toluene.
- None of the New Source Performance Standards (NSPS) apply to the new equipment.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- 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 and potential emissions of HAPs are below major source levels. Installation-wide HAP emissions have been conditioned to below major source levels.
- This installation is located in Greene 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 for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- An amendment to your Intermediate Operating Permit application is required for this installation within 90 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The 3M Springfield plant manufactures adhesives, sealants, coating and coated products. Raw materials are shipped to the plant by truck and rail car. They are stored in the warehouse or in bulk tanks. Raw materials are mixed and, in some cases, reacted in process vessels. Further processing includes coating applications, extruding, milling, additional mixing and slitting. Two boilers and a thermal oxidizer are also operated on site.

3M Springfield was issued an Intermediate Operating Permit (Permit No. OP2006-056) on August 11, 2006. In this operating permit, 3M Springfield took a 9.9 individual and 24.9 combined HAP limit. The Statement of Basis included in OP2006-056 contains a complete list of all 3M Springfield's construction permits issued by the Air Pollution Control Program and by the Springfield Air Pollution Control Authority. Since the completion of OP2006-056, 3M Springfield has received construction permit 072011-002 and currently has an Operating Permit Application under review as part of project 2011-06-004. 3M Springfield has also received construction permit numbers 1182-007 and 0802-231.

PROJECT DESCRIPTION

3M Springfield is seeking authority to install a new production line referred to as ME1 (EU0400), for the filling of cartridges with various low-VOC products.

Input materials consist of a variety of adhesives, caulks and sealants. This operation is being added to a location within an existing on-site building known as Building 18. This project is not expected to decouple any operations or add capacity to existing equipment. Therefore, the only emission increase is from the addition of the new production line.

This is a multi-phased permit for a site expansion. The permit applicability of this project will be combined with a future projects. A phased permit was chosen since the fate of the future projects is uncertain at this time, but more importantly to avoid the possibility of PSD circumvention if the future project is undertaken.

Generally, the new lines will operate in the following manner. Input material will be delivered and dispensed into the desired containers. The filled containers will then be labeled and packaged for delivery to customers. There are no emission controls being installed with the new equipment.

3M Springfield has requested confidentiality as allowed per 10 CSR 10-6.210 with regards to process flow diagram, process rates, emission factors and safety data sheets (SDS) due to the proprietary nature of the information. This information can only be obtained with written permission from 3M Springfield. This permit is a public version and there is no confidential version of the permit.

EMISSIONS/CONTROLS EVALUATION

The project's potential emissions are primarily VOCs and HAPs. The air emissions are a result of air displacement that occurs during filling operations. Emission factor data was calculated using the Emission Master® program, which calculates emission for batch and continuous processes using one or more computerized Environmental Protection Agency (EPA) models. Calculation assumes continuous use of the highest VOC containing product, filling both parts of the product, concurrently.

The following table provides an emissions summary for this project. Existing actual emissions were taken from the installation's 2015 EIQ as a 2016 EIQ has not yet been submitted. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). Potential emissions are below the insignificance level from 10 CSR 10-6.061(3)(A)3.A however the future phases will be added to this project and are expected to raise emissions above insignificance levels.

Table 2: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Actual Emissions (2015 EIQ)	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	N/D	N/A	N/A
PM ₁₀	15.0	0.46	N/A	N/A
PM _{2.5}	10.0	0.46	N/A	N/A
SO _x	40.0	0.03	N/A	N/A
NO _x	40.0	6.05	N/A	N/A
VOC	40.0	47.78	0.00656	N/A
CO	100.0	5.09	N/A	N/A
HAPs	10.0/25.0	0.0012	0.00583	<9.9/24.9
Toluene	10.0	N/D	0.00583	<9.9

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 volatile organic compounds (VOCs) are below de minimis levels and potential emissions of HAPs are below major source levels. Installation-wide HAP emissions have been conditioned to below major source levels

APPLICABLE REQUIREMENTS

3M Springfield 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

- *Operating Permits*, 10 CSR 10-6.065
- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
 - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *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*, it is recommended that this permit be granted withwith special conditions.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 7, 2016, received December 13, 2016, designating 3M Company as the owner and operator of the installation.

Attachment B - Monthly Individual HAP Emissions from All Sources

3M Springfield
 Greene County, S16, T29N, R21W
 Project Number: 2016-12-022
 Installation ID Number: 077-0051
 Permit Number: **022017-003**

HAP Name: _____ CAS No.: _____

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

Copy this sheet as needed.

Column 1	Column 2 (b)
Subtotal of This HAP Emitted from Coating Operations ²	
Subtotal of This HAP Emitted This Month from Tanks ³	
Subtotal of This HAP Emitted This Month from Compounding ⁴	
Subtotal of This HAP Emitted This Month from Filling Operating ⁵	
Subtotal of This Emitted this Month from Any Other Source ⁶	
Total of This HAP Emissions Calculated for this Month, in Tons ⁷	
Running 12-month Total of This HAP Emissions in Tons ⁸	

INSTRUCTIONS:

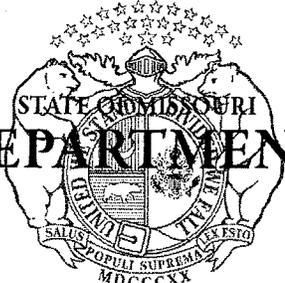
- 1 Duplicate and fill out this form each month for each HAP emitted;
- 2 Take this amount from Attachment A1 of OP2006-056 for this month and year, in Tons;
- 3 Take this amount from Attachment A2 of OP2006-056 for this month and year, in Tons;
- 4 Take this amount from Attachment A3 of OP2006-056 for this month and year, in Tons;
- 5 Take this amount from Attachment A of this permit for this month and year, in Tons;
- 6 If there are any other sources of this HAP for this month and year at the installation, enter the subtotal emitted here, and maintain documentation verifying the amount.
- 7 Summation of [Column 2], in Tons;
- 8 Sum the total of HAP Emissions Calculated for the Month, the total line above, plus the Totals from the previous 11 months' Attachment Bs for this HAP to obtain this running 12-month total.

A 12-Month individual HAP emission total of less than 9.9 tons for the installation indicates compliance.

APPENDIX A

Abbreviations and Acronyms

%percent	Mgal1,000 gallons
°Fdegrees Fahrenheit	MWmegawatt
acfmactual cubic feet per minute	MHDRmaximum hourly design rate
BACTBest Available Control Technology	MMBtuMillion British thermal units
BMPsBest Management Practices	MMCFmillion cubic feet
BtuBritish thermal unit	MSDSMaterial Safety Data Sheet
CAM Compliance Assurance Monitoring	NAAQSNational Ambient Air Quality Standards
CASChemical Abstracts Service	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CEMS Continuous Emission Monitor System	NO_xnitrogen oxides
CFRCode of Federal Regulations	NSPSNew Source Performance Standards
COcarbon monoxide	NSRNew Source Review
CO₂carbon dioxide	PMparticulate matter
CO₂ecarbon dioxide equivalent	PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter
COMSContinuous Opacity Monitoring System	PM₁₀particulate matter less than 10 microns in aerodynamic diameter
CSRCode of State Regulations	ppmparts per million
dscfdry standard cubic feet	PSDPrevention of Significant Deterioration
EIQEmission Inventory Questionnaire	PTEpotential to emit
EPEmission Point	RACTReasonable Available Control Technology
EPAEnvironmental Protection Agency	RALRisk Assessment Level
EUEmission Unit	SCCSource Classification Code
fpsfeet per second	scfmstandard cubic feet per minute
ftfeet	SDSSafety Data Sheet
GACTGenerally Available Control Technology	SICStandard Industrial Classification
GHGGreenhouse Gas	SIPState Implementation Plan
gpmgallons per minute	SMALScreening Model Action Levels
grgrains	SO_xsulfur oxides
GWPGlobal Warming Potential	SO₂sulfur dioxide
HAPHazardous Air Pollutant	tphtons per hour
hrhour	tpytons per year
hphorsepower	VMTvehicle miles traveled
lbpound	VOCVolatile Organic Compound
lbs/hrpounds per hour	
MACTMaximum Achievable Control Technology	
µg/m³micrograms per cubic meter	
m/smeters per second	



Eric R. Greitens, Governor • Carol S. Comer, Acting Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

FEB 08 2017

Mr. Andrew Willing
Environmental Specialist
3M Springfield
3M Center, Building 0224-05-W-03
Saint Paul, MN 55144

RE: New Source Review Permit - Project Number: 2016-12-022

Dear Mr. Willing:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.



Mr. Andrew Willing
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If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, at the Department of Natural Resources' 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



Susan Heckenkamp
New Source Review Unit Chief

SH:csj

Enclosures

c: Southwest Regional Office
PAMS File: 2016-12-022

Permit Number: **022017-003**