

STATE OF MISSOURI

PERMIT BOOK



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: 122011-001

Project Number: 2011-04-016
Installation Number: 097-0170

Parent Company: Leggett & Platt, Inc.

Parent Company Address: No. 1 Leggett Road, Carthage, MO 64836

Installation Name: Flex-O-Lators

Installation Address: 216 Zapletal Way, Carthage, MO 64836

Location Information: Jasper County, S3, T28N, R31W

Application for Authority to Construct was made for:

Existing installation which uses isobutane, a volatile organic compound (VOC), to produce polyethylene foam in an extrusion process. 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.

DEC 01 2011

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 Departments' 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."

Flex-O-Lators
Jasper County, S3, T28N, R31W

1. Emission Limitation
 - A. Flex-O-Lators shall emit less than 40.0 tons of Volatile Organic Compounds (VOCs) in any consecutive 12-month period from the entire installation.
 - B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.A.
2. Record Keeping and Reporting Requirements
 - A. Flex-O-Lators 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
 - B. Flex-O-Lators shall report to the Air Pollution Control Program's 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: 2011-04-016
Installation ID Number: 097-0170
Permit Number:

Flex-O-Lators
216 Zapletal Way
Carthage, MO 64836

Complete: April 13, 2011

Parent Company:
Leggett & Platt, Inc.
No. 1 Leggett Road
Carthage, MO 64836

Jasper County, S3, T28N, R31W

REVIEW SUMMARY

- Flex-O-Lators has applied for authority to implement a installation wide 40.0 ton per year volatile organic compound limit at their existing installation which uses isobutane during their polyethylene extrusion process.
- 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.
- 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 VOC are conditioned 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 for the equipment.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Flex-O-Lators consists of two facilities located in Carthage, Missouri. Flex-O-Lators first facility is located at 216 Zapletal Way in Carthage, Missouri. Flex-O-Lators' second facility is located at 1460 Jackson Drive in Carthage, Missouri. The 216 Zapletal Way facility handles the production of polyethylene foam for furniture and bedding industries. The 1460 Jackson Drive facility handles the production of springs for automotive seating. The 1460 Jackson Drive facility has an injection molding process where polyethylene beads are melted and injected around wire which is considered the finished product and is shipped to manufactures of automotive seating. Flex-O-Lators claims there are no emissions from these processes. Based on the relationship between the two Flex-O-Lators facilities, it was determined that these two facilities will be considered one installation. Currently no construction or operating permits have been issued to Flex-O-Lators. Upon issuance of this permit Flex-O-Lators will be considered a de minimis source for construction permitting and will not be required to obtain an operating permit.

PROJECT DESCRIPTION

In 1988, Leggett & Platt, Inc. purchased Flex-O-Lators. At that time Flex-O-Lators used Freon at their 216 Zapletal Way facility to produce polyethylene foam for use in automotive seat production. Freon is considered a non-VOC substance and no VOC emissions were expected from the polyethylene foam process. In 1995, Leggett & Platt, Inc. made the decision to switch to isobutane to produce polyethylene foam at the Flex-O-Lators facility. Isobutane has a VOC content of 100 percent. This action should have received a construction permit due to the addition of potential VOC emissions above the de minimis level. The maximum hourly design rate (MHDR) of isobutane usage for the polyethylene foam extrusion line is 3.84 gallons per hour. The potential emissions based on the MHDR and mass balance calculation are greater than the de minimis for VOC. Flex-O-Lators has requested a permit for this process and has agreed to take a 40.0 ton per year VOC limit. No new equipment is being added to the process.

EMISSIONS/CONTROLS EVALUATION

The potential emissions for this application were calculated using a mass balance approach. It assumed that all isobutene processed through the extruder (EP-01) to be emitted to the atmosphere. Flex-O-Lators has stated that there are no other emissions from any other process at this installation which includes the 216 Zapletal Way facility and the 1460 Jackson Drive facility. Potential emissions of the application represent the

potential of the extrusion (EP-01), assuming continuous operation (8,760 hours per year.) The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	New Installation Conditioned Potential
PM _{2.5}	10.0	N/A	N/A	N/A	N/A
PM ₁₀	15.0	N/A	N/A	N/A	N/A
SO _x	40.0	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	78.88	<40.0
CO	100.0	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

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 VOC are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Flex-O-Lators 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 a hard copy submittal or May 1 for online submittal for the previous year's emissions.
- *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.

Gerad Fox
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 28, 2011, received April 7, 2011, designating Leggett & Platt, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Attachment A - VOC Compliance Worksheet

Flex-O-Lators
 Jasper County, S3, T28N, R31W
 Project Number: 2011-04-016
 Installation ID Number: 097-0170
 Permit Number: _____

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

Copy this sheet as needed.

Column 1	Column 2 (a)	Column 3	Column 4	Column 5	Column 6
Material Used, (Name)	Amount of Material Used (gal)	*Density (lbs/gal)	**VOC Content (Weight %)	***VOC Content (lbs/gal)	VOC Emissions (Tons)
(b) Total VOC Emissions Calculated for this Month in Tons:					
(c) 12-Month VOC Emissions Total from Previous Month's Worksheet in Tons:					
(d) Monthly VOC Emissions Total (b) from Previous Year's Worksheet in Tons:					
(e) Current 12-month Total of VOC Emissions in Tons: [(b) + (c) - (d)]					

* If Density is not given use the following formula to calculate Density → (Specific Gravity) x (62.4) x (0.1337) = Density in (lbs/gal)
 ** VOC Content in weight percentage can be found in the MSDS of each specific product.
 *** VOC Content in lb/gal is calculated using the following Density (Column 3) X VOC Content (Column 4). In some case the VOC Content in lbs /gal will be directly given in the MSDS and no calculation for the VOC Content in lbs/gal will be necessary.

INSTRUCTIONS:
 (a) Usage is in gallons - [Column 2] x [Column 5] x [0.0005] = [Column 6];
 (b) Summation of [Column 5] in Tons;
 (c) 12-Month VOC emissions (e) from last month's Attachment A in Tons;
 (d) Monthly VOC emissions total (b) from the previous year's Attachment A in Tons;

(e) Calculate the new 12-month combined VOC emissions total. A 12-Month VOC emissions total (e) of less than **40.0** tons of VOC indicates compliance.

Mr. Jim Walter
General Manager
Flex-O-Lators
1460 Jackson Drive
Carthage, MO 64836

RE: New Source Review Permit - Project Number: 2011-04-016

Dear Mr. Walter:

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 do not hesitate to contact Gerad Fox, at the Department's 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, P.E.
Permits Section Chief

KBH:gfk

Enclosures

c: Southwest Regional Office
PAMS File: 2011-04-016

Permit Number: