

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Project Summary for an Application from  
Forbo Adhesives LLC for the  
Federally Enforceable State Operating Permit (FESOP) for  
Forbo Adhesives LLC  
Morris, Illinois

Site Identification No.: 063806AAL  
Application No.: 02040063

Schedule

Public Comment Period Begins: April 5, 2008

Public Comment Period Closes: May 5, 2008

Illinois EPA Contacts

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## **I. INTRODUCTION**

Forbo Adhesives LLC has applied for a Federally Enforceable State Operating Permit (FESOP) for its Morris plant. This plant requires an air pollution control operating permit because it is a source of emissions. The Illinois EPA has prepared a draft of the permit that it would propose to issue for the plant. However, before issuing the permit, the Illinois EPA is holding a public comment period to receive comments on this proposed action and the terms and conditions of the draft permit that it would propose to issue.

## **II. SOURCE DESCRIPTION**

Forbo Adhesives LLC manufactures polyurethane adhesives. The emission units at this plant that require an operating permit include:

- Four (4) Blend Tanks/Reactors (T-204/R-301, T-205/R-302, T-206/R-303, and T-207/R-304) controlled by Regenerative Thermal Oxidizer (PUR-RTO);
- One (1) Reactor (R-305) controlled by Regenerative Thermal Oxidizer (PUR-RTO);
- One (1) 1,500 Gallon Dirty Solvent Tank (T-410) controlled by Regenerative Thermal Oxidizer (PUR-RTO);
- One (1) 1,500 Gallon Clean Solvent Tank (CST 1500) controlled by Regenerative Thermal Oxidizer (PUR-RTO);
- One (1) Solvent Distillation Vessel;
- Two (2) MDI Storage Tanks (T-203 & T-204a);
- One (1) Overflow Tank (T-212); and
- Two (2) Polyol Storage Tanks (T-201 & T-202)

These units are sources of emissions because the manufacture of polyurethane adhesives emits volatile organic material (VOM) and hazardous air pollutants (HAP). VOM and HAPs emitted by the chemical manufacturing operations are vented to and controlled by a regenerative thermal oxidizer.

## **III. GENERAL DISCUSSION**

Federally Enforceable State Operating Permits (FESOPs) are federally enforceable, that is, the terms and conditions of the permits can be enforced by USEPA under federal law, as well as by Illinois government and the public under state law. These permits can establish federally enforceable limitations on the operation and emissions of a source that restrict the potential emissions of the source.

Forbo Adhesives LLC will be operating this plant under a FESOP because the actual emissions of the plant are below the levels at which the plant would be considered a major source under Title V of the federal Clean Air Act. However, in the absence of federally enforceable limitations, the plant's potential emissions would be such that the plant would be considered a major source. The permit acts to restrict the plant potential emissions so that it need not be considered a major source. As a result, the source does not need to obtain a Clean Air Act Permit Program (CAAPP) permit for the plant, as would otherwise be required.

The FESOP limits the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons for Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), and VOM, 10 tons for an individual HAP and 25 tons for combined HAPs.

## **IV. APPLICABLE EMISSION STANDARDS**

All emission units in Illinois must comply with state emission standards adopted by the Illinois Pollution Control Board. The board has specific standards for units emitting volatile organic material in the greater Chicago area. Batch chemical manufacturing operations at this plant are subject to the VOM control requirements of 35 Ill. Adm. Code Part 218, Subpart V (Batch Operations). These emission standards represent the basic requirements for sources in Illinois. The application shows that the plant is in compliance with applicable state emission standards.

#### **V. CONTENTS OF THE PERMIT**

The draft permit that the Illinois EPA is proposing to issue would continue to identify the specific emission standards that apply to the emission units at the plant. As explained, the batch chemical manufacturing operations at this plant are subject to 35 Ill. Adm. Code Part 218, Subpart V, which requires 90% reduction in uncontrolled VOM emissions. The conditions of this permit are intended to ensure that the source continues to comply with applicable emission standards.

The permit would also contain limitations and requirements to assure that this plant is operated as a non-major source. The permit would limit the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons for NO<sub>x</sub>, SO<sub>2</sub>, and VOM, 10 tons for an individual HAP and 25 tons for combined HAPs. (Annual emissions of other pollutants from the plant are well below the 100 ton major source threshold.)

The permit would also set limitations on amount of products produced, the type and amount of fuel used and the minimum control efficiency of the source's thermal oxidizers. These limitations are consistent with the historical operation of emission units at the plant.

The permit conditions would also continue to require appropriate compliance procedures, including inspection practices as well as recordkeeping and reporting requirements. The source must carry out these procedures on an on-going basis to demonstrate that the plant is being operated within the limitations set by the permit and the plant's emissions are being properly controlled.

#### **VI. REQUEST FOR COMMENTS**

It is the Illinois EPA's preliminary determination that the source has met meets all applicable state and federal air pollution control requirements, subject to the conditions proposed in the draft permit. The Illinois EPA is therefore proposing to issue the permit.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 IAC Part 166.