

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Project Summary for an Application from  
Advanced Urethane Technologies, Inc. for  
The Federally Enforceable State Operating Permit (FESOP) for  
1750-1850 West Downs Drive, West Chicago

Site Identification No.: 043090ABS  
Application No.: 85060009

Schedule

Public Comment Period Begins: January 17, 2013  
Public Comment Period Closes: February 16, 2013

Illinois EPA Contacts

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## **I. INTRODUCTION**

Advanced Urethane Technologies, Inc. (AUT) currently operates under a federally enforceable state operating permit (FESOP) which has expired. The company requested a renewal of their FESOP to continue to operate as a non-major source for the purposes of the Clean Air Act Permit Program (CAAPP). Production and emission limitations, as well as monitoring and recordkeeping conditions contained in the FESOP have prevented the facility from being a major source and will assure this status in the future. These conditions would be enforceable by both the State of Illinois and USEPA. 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 revised 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**

The AUT manufactures polyurethane foam products. The production process consists of mixing two chemical components, polyol and toluene diisocyanate (TDI), which react with each other, and adding a blowing agent, carbon dioxide, to create solid foam blocks. These blocks are cut in various shapes and sizes, sprayed with adhesive and assembled into final products. The heat and steam for operation and space heating is provided by the natural gas fired boiler and space heaters.

## **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.

The source needs to operate 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 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's 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 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. These emission standards represent the basic requirements for sources in Illinois. The board has specific standards for emissions of particulate matter (PM) from process and fugitive sources, e.g., 35 IAC, Part 212, Subpart B – Visible Emissions, Subpart K – Fugitive Particulate Matter and Subpart L – PM Emissions from Process Emission Units. Emission units emitting VOM are regulated by Part 218, e.g., Subpart B - Organic Emissions from Storage and Loading Operations, Subpart JJ – MISCELLANEOUS INDUSTRIAL ADHESIVES. The sources of VOM emissions are also subject to general VOM emission limitation found in Subpart G – Use of Organic Material.

The emissions of Nitrogen Oxides and Carbon Monoxide from fuel combustion sources are subject to the requirements of Part 217 Subpart B and Part 216 Subpart B, respectively.

The source is exempt from requirements of Emission Reduction Market System due to limitations of this FESOP.

The boiler is subject to New Source Performance Standards (NSPS) for Small Industrial - Commercial - Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc.

The polyurethane foam production is subject to the National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources, 40 CFR 63 Subpart OOOOOO.

The source potentially could be subject to the requirements of the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subpart Kb. The source is exempted from the requirements of this subpart due to vessels size and vapor pressure of stored materials being below applicability levels.

The application shows that the plant is in compliance with applicable state and federal emission standards.

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

The permit that the Illinois EPA is proposing to issue would identify the specific emission standards that apply to the emission units at the plant. The process emission units shall not exhibit emission of particulate matter exceeding 30% and fugitive emissions shall not cross property line as specified in Part 212, Subpart B and Subpart K. As explained, the plant operations are subject to 35 IAC 218, Subpart B, Subpart G and Subpart JJ which restricts VOM emission from subject emission units. Pursuant to requirements of NESHAP Subpart OOOOOO the source is precluded from using methylene chloride in their operations. The conditions of this permit are intended to ensure that the source complies 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 VOM, 10 tons for an individual HAP and 25 tons for combined HAPs.

The permit conditions would also 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 the requirements for renewal of its 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.