

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Project Summary for an Application from  
Johns Manville - Rockdale Plant for a  
Federally Enforceable State Operating Permit (FESOP) for  
2151 West Channahon Road  
Rockdale, Illinois 60436

Site Identification No.: 197809AAF  
Application No.: 95120087

Illinois EPA Contacts

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## **I. INTRODUCTION**

Johns Manville - Rockdale Plant has applied for a Federally Enforceable State Operating Permit (FESOP) for its roofing materials plant at 2151 West Channahon Road in Rockdale. 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**

From holding bins, raw perlite, a hydrated amorphous alumina silicate, is fed to five separate natural gas-fired furnaces (each with a design capacity firing rate of 6 mmBtu/hr), referred to as expanders. The expanders expand or "pop" the perlite like popcorn. The expanded material is then conveyed under negative pressure into five individual primary cyclones for initial separation. The remaining air and perlite mix is drawn into a common plenum connected to baghouses in parallel for secondary separation. The filtered air is then vented to the atmosphere and the captured material from the baghouses is conveyed to the mixers. Material captured by the five primary cyclones is deposited into a mixer. The perlite is then coated with asphalt.

After forming, mats of wet Fesco board are fed into a five zone dryer. The dryer has heat provided by five natural gas-fired burners with heat release capacities of 45 mmBtu/hr for zone 1, 45 mmBtu/hr for zone 2, 45 mmBtu/hr for zone 3, 35 mmBtu/hr for zone 4, and 30 mmBtu/hr for zone 5. Regardless of the board feet through the dryer, the total volume of board through the dryer remains relatively constant because thicker products must run at slower speeds. In addition to driving off water, the Fesco dryer also drives off solvent from the coated perlite.

## **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 has applied for 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 not 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 units emitting volatile organic material in the greater Chicago Area. This source has chosen to take a 15 ton VOM seasonal emission for the period from May 1 through September 30 of each year in order to comply with 35 Ill. Adm. Code Part 205 Emission Reduction Market System (ERMS).

**V. CONTENTS OF THE PERMIT**

This permit that the Illinois EPA is proposing, will identify the specific emission standards that apply to the emission units at the plant. 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 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 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 that 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 issuance of its permit. The Illinois EPA is therefore proposing to renew 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.