

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
1021 N. Grand Avenue East
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Project Summary for an Application from
The Dow Chemical Company
for Issuance of the
Federally Enforceable State Operating Permit (FESOP) for
1255 North Fifth Street
Charleston, Illinois

Site Identification No.: 029010AAV
Application No.: 03010014

Schedule

Public Comment Period Begins: January 4, 2012
Public Comment Period Closes: February 3, 2012

Illinois EPA Contacts

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PROJECT SUMMARY

I. INTRODUCTION

The Dow Chemical Company requested a renewal of their federally enforceable state operating permit (FESOP) to continue to operate as 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.

II. SOURCE DESCRIPTION

The Dow Chemical Company manufactures insulated foam panels used by construction industry. Production process consists of mixing two chemical components, polyol and MDI, which react and create solid foam panels. To increase insulation value of the panels an organic blowing agent is injected in the mixture to fill all voids in the panel. The main pollutants emitted by the facility is volatile organic materials (VOM) created by blowing agent escaping from panels at all stages of manufacturing process: foam mixing, curing and trimming. Storage, handling and reaction of polyol and MDI result in insignificant emissions of volatile organic materials. Cutting and trimming operations generated insignificant amount of particulate matter due to use of dust controlling device.

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 will 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 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 operate under 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 of VOM.

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 source VOM emissions are subject to the general VOM emission limitation found in 35 IAC 215.301 – Use of Organic Material.

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

V. CONTENTS OF THE PERMIT

The renewed 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, all emission units are subject to 35 IAC 215.301 which requires limiting VOM emissions from each emission unit to less than 8 lbs per hour. 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.

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 the requirements for renewal 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.