

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary
Federally Enforceable State Operating Permit (FESOP) - Renewal
Solvay USA Inc.
University Park, Illinois

Site Identification No.: 197072AAE
Application No.: 05010053

Schedule

Public Comment Period Begins: January 23, 2014
Public Comment Period Closes: February 22, 2014

Illinois EPA Contacts

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I. INTRODUCTION

Solvay USA Inc. has applied for renewal of its Federally Enforceable State Operating Permit (FESOP) for chemical specialties manufacturing 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 renewed permit that it would propose to issue for the plant. However, before renewing 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

Solvay USA Inc. manufactures chemical specialties such as, amides, amidoamines, imidazolines, preservatives, blends and other surfactants used in the production of various commercial and industrial chemicals and hair and skin care products. Facility emission sources include:

10.3 mmBtu/hour Natural Gas-Fired Process Steam Boiler
16.33 mmBtu/hour Natural Gas-Fired Process Steam Boiler
Twelve Reactors (R1-7, R10-14) with a Condenser and a Vacuum System
Thirteen Reactors (R15, R16, R19-R21, R23-R26, R28-R30 and PR1) Controlled by a Scrubber for Control of Odors as necessary
Fifteen Mixing Tanks (M1- M5, M7-M9,M17, M18, M22, M27, F2, 54, and 56)
One Hundred Nine (109) Indoor Storage Tanks Storage Tanks (1,700 – 17,200 Gallon Capacity)
Seventeen Outdoor Storage Tanks (S1-S12 and S17- 21)
Roll Flaker controlled by a particulate filter

These units are sources of emissions because emissions generated from chemical processing are volatile organic material (VOM) and hazardous air pollutants (HAP).

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 been 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 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 standards for sources of Volatile Organic Material (VOM). The application shows that the plant is in compliance with applicable state and federal emission standards.

The principal air contaminant of concern is volatile organic material (VOM) which is created by the chemical specialties manufacturing. The facility has limited their throughput that will keep the VOM emissions below the major source threshold level of 100 tons per year for VOM.

Other emissions of hazardous air pollutants (HAP) are also emitted; however, their levels are also depended on the amount of VOM and will remain below the major source threshold level of 10 ton per year for single HAP and 25 ton per year for combined total HAPs.

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.

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 would also set limitations on requirements to assure that this facility will be operated as a non-major source. The permit sets limitations on chemical specialties manufacturing facility emissions. These limitations are consistent with the historical operation and capacity of the facility.

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 issuance 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.