

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Project Summary for an Application from  
Alsey Refractories Company for Renewal of the  
Federally Enforceable State Operating Permit (FESOP) for  
Highway 106  
Alsey, Illinois

Site Identification No.: 171005AAA  
Application No.: 72111267

Schedule

Public Comment Period Begins: October 21, 2009  
Public Comment Period Closes: November 20, 2009

Illinois EPA Contacts

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## **I. INTRODUCTION**

Alsey Refractories Company has applied for renewal of its Federally Enforceable State Operating Permit (FESOP) for its Alsey 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**

Alsey Refractories Company manufactures temperature resistant bricks, mortar and castable for insulation of industrial furnaces and ovens. The emission units at this plant that require an operating permit include raw clay and other materials storage and handling equipment, clay and return bricks grinders and crushers, raw materials and products dryers and tunnel kiln. These units are sources of emissions because they generate particulate matter (PM) and release chloride and fluoride components from raw materials some of which are hazardous air pollutants (HAP). Combustion of natural gas in the dryers and ovens generates emissions predominantly presented by nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO).

## **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/yr of particulate matter with an aerodynamic

diameter of 10 microns or less (PM<sub>10</sub>) and CO and 10 tons/yr of an individual HAP and 25 tons/yr 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 emission of particulate matter from process emission units, e.g., 35 IAC, 212.321 and fugitive emissions, e.g., 35 IAC 212.301.

The source is exempted from the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Refractory Plants, 40 CFR 63 Subpart SSSS due to limitations of this permit on HAP emissions below NESHAP applicability threshold level.

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

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

The 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 process emission units are subject to 35 IAC, Part 212 which requires limiting PM emissions from each emission unit or group of emission units to less than allowable by equation given in Section 212.321. 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/yr of PM<sub>10</sub> and CO and 10 tons for an individual HAP and 25 tons for combined HAPs.

The permit would also set limitations on the raw materials usage. 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 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.