

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Project Summary for an Application from  
Mueller Company for  
Federally Enforceable State Operating Permit (FESOP) for  
Its Brass Foundry  
In Decatur, Illinois

Site Identification No.: 115015AGL  
Application No.: 04070077

Schedule

Public Comment Period Begins: January 24, 2007  
Public Comment Period Closes: February 23, 2007

Illinois EPA Contacts

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## **I. INTRODUCTION**

Mueller Company has applied for renewal of its Federally Enforceable State Operating Permit (FESOP) for its Decatur plant to operate a brass foundry. 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**

Mueller Company is a brass foundry. The facility consist of the following units: Zinc Melting Furnace, Aluminum Melting Furnace, Fiberglass Mold Making, Core Ovens, 10 Brass Melting Electric Induction Furnaces with Dust Collection, Casting Operating (Consisting of Pouring/Casting, Casting Cooling, and Shakeout Areas), 2 Sand Silos with Dust Collection, 1 Bond Silo with Dust Collection and 10 Shell Core Machines.

## **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 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 PM, PM-10, VOM, and 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), and Particulate Matter (PM) emission. The application shows that the plant is in compliance with applicable state emission standards.

The principal air contaminants emitted from the facility is particulate matter, volatile organic material, Nitrogen oxides, lead and carbon monoxide. These emissions are released from the furnace during the melting process as a result of incomplete

combustion of organic materials presented in the mold pouring, cooling and shakeout. The particulate matter is also emitted as a result of incomplete combustion of carbon additives, flux additions, and dirt, as well as during the raw materials handling operations and post-casting operations: grinding, sand blasting etc.

This permit will be issued based on the source not being subject to the requirements of The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries, 40 CFR Part 63, Subpart EEEEE. This is consequence of the federally enforceable production and operating limitations established in this permit, which restrict a potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs. Annual emissions of other pollutants from the plant are well below the 100 ton major source threshold.

## **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, the brass foundry is subject to rule 35 Ill. Adm. Code 212.123 (a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit. 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 PM, 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 continue to require appropriate compliance procedures, including inspection practices as well as recordkeeping and reporting requirements with monthly and annual single HAPs and combined HAPs emissions from brass casting production, copper based alloy production and new sand additions (tons/month, and tons/year with supporting calculations); and monthly and annual NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, CO, lead, single HAPs and combined HAPs emissions from the brass foundry shall be maintained, based on brass foundry and the applicable emission factors, with supporting calculations (tons/month and tons/year).

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.