

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary for an Application from
Magnesium Elektron for Renewal of their Federally Enforceable State Operating Permit
(FESOP) for their Magnesium Casting Operation
located at 1001 College Street in Madison

Site Identification No.: 119105AAH
Application No.: 72090139

Schedule

Public Comment Period Begins: March 7, 2012
Public Comment Period Closes: April 6, 2012

Illinois EPA Contacts

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I. INTRODUCTION

Magnesium Elektron applied for Renewal of their Federally Enforceable State Operating Permit (FESOP) for its facility located at 1001 College Street, Madison, Madison County. This facility requires an air pollution control operating permit because it is a source of Particulate Matter less than 10 microns (PM₁₀), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Volatile Organic compound (VOM), Sulfur Dioxide (SO₂) and HAPs emissions. The Illinois EPA has prepared a draft permit renewal that it would propose to issue for the facility. 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

Magnesium Elektron operates a magnesium casting facility located at 1001 College Street, Madison, Madison County. Magnesium Elektron melts and cast magnesium alloys from ingots into sheets and plates forms. Magnesium Elektron is not a secondary nonferrous metals processing facility since they don't charge or melt post consumer scrap to make their products. Magnesium Elektron employs different kinds of furnaces, ovens, chip processing and handling operations: Casting Homogenizing Oven; Furnaces ; Intermittent, Billet, and Slab Casting Units; Metal Chip Handling; Coil Wire Brush & Sheet Wire Brush; Boiler; Steam Generator; Heaters; and Backcoaters. This facility requires an Air permit because of its Particulate Matter less than 10 microns (PM₁₀), Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Volatile Organic compound (VOM), Sulfur Dioxide (SO₂), and HAPs emissions. The principal pollutants of concern here are PM₁₀, CO, NO_x, and VOM that is generated from its plant operation.

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.

This facility will be operating under a FESOP because the actual emissions of the facility are below the levels at which the facility would be considered a major source under Title V of the federal Clean Air Act. However, in the absence of federally enforceable limitations, the facility's potential emissions would be such that the facility would be considered a major source. The permit acts to restrict the facility 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 facility, as would otherwise be required.

The FESOP limits the operation and annual emissions of the facility to below the major-source-thresholds of 100 tons for PM₁₀, CO, NO_x, and 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 board has standards for sources of Particulate

Matter (PM10), Carbon Monoxide (CO), Nitrogen oxides (NOx), Volatile Organic Material, Sulfur Dioxide (SO2) emission, and HAPs. The application shows that the facility is in compliance with applicable state and federal emission standards.

V. CONTENTS OF THE PERMIT

The permit that the Illinois EPA is proposing to issue identifies specific emission standards that apply to the emission units at the facility. The conditions of this permit are intended to ensure that the source complies with applicable emission standards.

The permit would also contain limitations and requirements to assure that this facility is operated as a non-major source. The permit limits the operation and annual emissions of the facility to below the major-source-thresholds of 100 tons for PM10, CO, NO_x, and VOM (Annual emissions of other pollutants from the plant are well below the 100 ton major source threshold.)

The permit conditions 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 facility is being operated within the limitations set by the permit and the facility'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 this permit renewal. The Illinois EPA is therefore proposing to issue the permit renewal.

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.