

Illinois Environmental Protection Agency  
Bureau of Air, Permit Section  
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Springfield, Illinois 62794-9506

Project Summary for an Application from  
Arnold Engineering Company  
for Issuance of the  
Federally Enforceable State Operating Permit (FESOP) for  
300 North West Street  
Marengo, Illinois 60152

Site Identification No.: 111812AAB  
Application No.: 73090130

Schedule

Public Comment Period Begins: February 13, 2012  
Public Comment Period Closes: March 14, 2012

Illinois EPA Contacts

Permit Analyst: Valeriy Brodsky  
Community Relations Coordinator: Brad Frost

## **I. INTRODUCTION**

Arnold Engineering Company has applied for revision of its Federally Enforceable State Operating Permit (FESOP) for its Chicago plant to include operations of the existing and new emission units and update production and emission information. It is also time for FESOP renewal because five years passed since the last permit renewal. 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**

Arnold Engineering manufactures magnetic materials and related electronic components. Company currently operates four manufacturing facilities: Rolled Product Department, Sintered Alnico Department, Cast Alnico Department and Akromax Department. Manufacturing processes involve various operations: metals crushing, blending and pressing; mold and core making, metal melting and casting; milling and heat treating; surface preparation operations including solvent degreasing and painting operations. The heat for the plant operations is provided by natural gas burning ovens and furnaces. For the purpose of power back-up the company has two emergency generators and one diesel –powered fire pump.

## **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 volatile organic material (VOM) and 10 tons for an individual hazardous air pollutant (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 specific standards for emissions of particulate matter (PM) from process and fugitive sources, e.g., 35 IAC, Part 212, Subpart B – Visible Emissions, Subpart K – Fugitive Particulate Matter and Subpart L – PM Emissions from Process Emission Units. Emission units emitting VOM are regulated by Part 218, e.g., degreasers are regulated by Subpart E – Solvent Cleaning, painting booth is regulated by Subpart F – Coating Operations. The sources of VOM emissions are also subject to general VOM emission limitation found in 35 IAC 218.301 – Use of Organic Material.

The emissions of Nitrogen Oxides and Carbon Monoxide from fuel combustion sources are subject to the requirements of Part 217 Subpart B and Part 216 Subpart B, respectively.

Emergency generators' engines are subject to federal regulations: New Source Performance Standards (NSPS), 40 CFR 60 Subparts IIII and Subpart JJJJJ and National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63 Subpart ZZZZ.

The source is exempt fro requirements of Emission Reduction Market System due to limitations of this FESOP.

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

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

The revised 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 process emission units shall not exhibit emission of particulate matter exceeding 30% and fugitive emissions shall not cross property line as specified in Part 212, Subpart B and Subpart K. As explained, the degreasers are subject to the equipment, operational and material requirements of 35 IAC Part 218, Subpart E. Paint booth is exempt from control requirements of 35 IAC Part 218, Subpart F due to low paint usage. All VOM-emitting units are subject to emission limitations of 35 IAC 218.301 which requires limiting VOM emissions from each emission unit (except degreasers) 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 also addresses requirements of applicable federal regulations of NSPS and NESAP.

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 per year of VOM and 10 tons for an individual HAP and 25 tons for combined HAPs.

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 revise 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.

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