

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary for an Application from
Hinsdale Hospital for Renewal of the
Federally Enforceable State Operating Permit (FESOP) for
120 North Oak Street
Hinsdale, Illinois 60521

Site Identification No.: 043452AAQ
Application No.: 00090032

Illinois EPA Contacts
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I. INTRODUCTION

Hinsdale Hospital has applied for a renewal of their Federally Enforceable State Operating Permit (FESOP) for its hospital at 120 North Oak Street in Hinsdale. 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 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

Hinsdale Hospital provides health care services and operates three industrial boilers, four natural gas-fired reciprocating engines, two ethylene oxide sterilizers and other miscellaneous air emission units. The industrial boilers produce high-pressure steam used for process and for general cooling and heating. Boiler #1 functions as a stand alone boiler. At 10,000 pounds per hour of steam capacity, Boiler #1 will be able to handle the off-peak steam demand of the hospital for about 35% time of the year. The hospital saves energy by running this small boiler during low steam demand periods.

The hospital utilizes 4 lean-burn natural gas-fired, 16 cylinder reciprocating engines to produce their own electricity for back-up purposes. Exhaust gas associated with the combustion of natural gas in each engine is sent through a heat recovery silencer and exhaust piped to the atmosphere.

The principal air contaminant emitted from the facility is nitrogen oxides which is generated from the fuel combustion process. Nitrogen oxides are formed thermally by a combination of oxygen and nitrogen in the air at a temperature at which fuel is burned.

In addition, sulfur dioxides (SO₂), carbon monoxide (CO), particulate matter (PM) and volatile organic material (VOM) are emissions formed by combustion processes. CO is formed by the incomplete combustion of fuel. SO₂ emissions are mostly generated during the combustion of fuel oil.

The ethylene oxide sterilizer emits low amounts of ethylene oxide into the atmosphere. Ethylene oxide is a hazardous air pollutant and is also a volatile organic material.

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 NO_x, 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 application shows that the plant 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 will identify the specific emission standards that apply to the emission units at the plant. 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 NO_x, 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 monthly and annual natural gas usage and fuel oil usage. Since these items are limited, therefore the air emissions are limited.

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 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 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.