

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
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Project Summary for an Application from
Lucent Technologies Inc. for a
Federally Enforceable State Operating Permit (FESOP) for
Natural Gas Boilers and Emergency Diesel Generators

Site Identification No.: 043055AAE
Application No.: 04030002

Schedule

Public Comment Period Begins: January 29, 2007
Public Comment Period Closes: February 28, 2007

Illinois EPA Contacts

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I. INTRODUCTION

Lucent Technologies has applied for renewal of its Federally Enforceable State Operating Permit (FESOP) for its Telecommunications locate at Lucent Technologies 2601 Lucent Lane Lisle, IL 60532. 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

Lucent Technologies is a Telecommunications Company. The emission units at this plant that require an operating permit include: Five (5) Natural Gas-Fired Boilers (Boilers #1, and 2: 10.5 mmBtu/Hr (Each); Boiler #3, 4 and 5: 10.2 mmBtu/Hr) One (1) Diesel-Powered Emergency Generator (490 Horsepower) One (1) Diesel-Powered Emergency Generator (805 Horsepower) One (1) Diesel-Powered Emergency Generator (1315 Horsepower) One (1) Diesel-Powered Emergency Generator (131 Horsepower). These units are sources of emissions because air pollutants are generated when these boilers and diesel powered-generators are in operation. These emissions occur from the combustion of diesel fuel or natural gas and are exhausted through a pipe to a vent located on the roof. The primary air pollutants from these boilers and diesel-powered generators are nitrogen oxide (NO_x), carbon monoxide (CO), volatile organic material (VOM), sulfur dioxide (SO₂), and particulate matter (PM). NO_x is formed thermally by the combination of oxygen and nitrogen in the air at the temperature at which the fuel is burned. CO, VOM, and PM are formed from incomplete combustion of the fuel. Emissions of SO₂ are found in varying amounts from the combustion of diesel fuel, depending on the sulfur content of the fuel. The proposed permit includes limitations that restrict the potential annual emissions of NO_x, CO, VOM, and SO₂ to levels below major source thresholds.

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 Board has standards for sources of particulate matter, volatile organic material, and sulfur dioxide for boilers, reciprocating engines. This site readily complies with those Board standards.

The USEPA has also adopted standards for small steam generators for which construction was commenced after June 9, 1989, the federal New Source Performance Standards (NSPS), 40 CFR 60 Subpart Dc. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. This permit addresses compliance with the USEPA's standard for Small Steam Industrial-Commercial-Institutional Steam Generating Units. The application shows that the plant is in compliance with applicable state (AND FEDERAL) emission standards.

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 five natural gas-fire boilers, four standby diesel-powered generators, ARE subject to New Source Performance (NSPS), which requires good air pollution control practice for minimizing emissions. 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 the amount of fuel that may be burned in the boilers and the number of hours in which the diesel-powered generators may be operated. The permit conditions also establish appropriate compliance procedures, including record keeping requirements and reporting requirements. Lucent Technologies, Inc. must carry out these procedures on a continual basis to demonstrate that the boilers and generators are operating within the limitations established by the permit. 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.