



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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Project Summary

Federally Enforceable State Operating Permit (FESOP) Renewal
DTE Energy Services
Chicago, Cook County, 60616

Site Identification No.: 031600AVA
Application No.: 00010044

Schedule

Public Comment Period Begins: November 19, 2014
Public Comment Period Closes: December 19, 2014

Illinois EPA Contacts

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I. INTRODUCTION

DTE Energy Services has applied for a Federally Enforceable State Operating Permit (FESOP) renewal for its Chicago, Illinois location. 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

DTE Energy Services owns and operates two cogeneration units each consisting of a turbine and duct burner with steam producing unit consisting of a heat recover unit boiler for power generation to allow facility to reduce its load on the local electric distribution grid. The emission units at this plant that require an operating permit include two 42 mmBtu/hour natural gas/#2 fuel oil-fired stationary turbines with water injection control, two 82 mmBtu/hour natural gas-fired duct burners, one 31 mmBtu/hour natural gas-fired boiler, and two 25.2 mmBtu/hour natural gas/#2 fuel oil-fired boilers. These units are sources of emissions because the combustion of natural gas and #2 distillate fuel oil in the turbines and boilers produces emission of Carbon Monoxide (CO), Nitrogen Oxides (NO_x) and Sulfur Dioxide (SO₂), and Carbon Dioxide equivalent (CO₂e) for Green House Gases (GHG) to the atmosphere.

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 for the source are below the levels at which the source would be considered a major source under Title V of the federal Clean Air Act. However, in the absence of federally enforceable limitations, the source's potential emissions would be such that the source would be considered a major source. The permit acts to restrict the source's 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 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 Carbon Monoxide (CO), Nitrogen Oxides (NO_x) and Sulfur Dioxide (SO₂), and 100,000 tons of Carbon Dioxide equivalent (CO₂e) per year for Green House Gases (GHG).

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 CO, NO_x, SO₂, and GHG for fuel combustion emission sources. The Boilers and Duct Burners are subject to the New Source Performance Standards (NSPS) for Small Industrial – Commercial – Institutional Steam Generating Units, 40 CFR 60, Subparts A and Dc. The Turbines are subject to the New Source Performance Standards (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subparts A and GG. The applicant 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 would identify the specific emission standards that apply to the emission units at the plant. As explained, the boilers and duct burners are subject to the New Source Performance Standards (NSPS) for Small Industrial – Commercial – Institutional Steam Generating Units, 40 CFR 60, Subparts A and Dc for the combustion of natural gas. The turbines are subject to the New Source Performance Standards (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subparts A and GG for the combustion of natural gas and fuel oil. 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 will limit the operation and annual emissions of the plant to below the major-source-thresholds of 100 tons of CO, NO_x, SO₂, and GHG.

The permit conditions would also 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.