

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

City of Fairfield
Attn: Jim Griffith
109 Northeast Second Street
Fairfield, Illinois 62837

Application No.: 77080053 I.D. No.: 191010AAI
Applicants's Designation: POWER PLNT Date Received: August 23, 1999
Subject: Power Generating Plant
Date Issued: Expiration Date:
Location: Northwest 6th Street, Fairfield

Permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of an electric power plant with three diesel engines as described in the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This Federally Enforceable State Operating Permit (FESOP) is issued to limit the emissions of nitrogen oxide, carbon monoxide, sulfur dioxide, particulate matter, and volatile organic material from all internal combustion engines combined to less than 100 tons per year, as further described in Attachment A. As a result, this facility is excluded from the requirements to obtain a Clean Air Act Permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- 2a. The only fuel fired in the diesel engines shall be diesel fuel (distillate oil).
- b. Fuel consumption for all diesel engines combined shall not exceed 84,500 gallons per year.
- c. Compliance with this limit shall be determined from a running total of twelve months of data.
3. At all times, the Permittee shall to the extent practicable, maintain and operate the above referenced emission sources, in a manner consistent with good air pollution control practice for minimizing emissions.
- 4a. The sulfur content of the diesel fuel shall not exceed 0.05 weight percent.

- b. Organic liquid by-products or waste materials shall not be used in any diesel engine without written approval from the Illinois EPA.
 - c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
- 5a. The Permittee shall maintain monthly records of the following items:
- i. Hours of operation for each unit including startup and shutdown time;
 - ii. Fuel usage for all engines combined (gallons per month); and
 - iii. Fuel analysis sheets indicating sulfur content for each shipment or purchase of fuel.
- b. These records shall be retained on site at a readily accessible location for a period of at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and the USEPA upon request.
6. The Permittee shall submit an Annual Emissions Statement to the Illinois EPA by May 1st of each year. With this statement, the Permittee shall report as a minimum, fuel oil consumption. If there has been no exceedance during the prior calendar year, the Annual Emissions Statement shall include a statement to that effect.

If you have any questions on this permit, please contact Youra Benofamil at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:YB:jar

cc: Region 3
Illinois EPA, FOS - CMU
USEPA

I.D.: 191010AAI
P.N.: 77080053
Facility: City of Fairfield

Attachment A - Emissions Summary

Emissions from all emission units combined:

<u>NO_x</u> <u>(Ton/Yr)</u>	<u>CO</u> <u>(Ton/Yr)</u>	<u>SO₂</u> <u>(Ton/Yr)</u>	<u>PM</u> <u>(Ton/Yr)</u>	<u>VOM</u> <u>(Ton/Yr)</u>
18.58	4.93	0.30	0.58	0.52

This table describes the potential emissions from all emission units at the facility, based on the maximum usage of diesel fuel as stated in Condition 2. Emissions are calculated based on standard emission factors for diesel engines and information provided in the permit application.

YB:jar

PROJECT SUMMARY

I. INTRODUCTION

The City of Fairfield has submitted an application for renewal of their federally enforceable state operating permit covering an electric power plant with three motor driven generators. This permit prevents the site from being classified as a major source of emissions under the Clean Air Act. Therefore, the City does not have to obtain a federal permit under the Clean Air Act Permit Program. The renewed permit would contain limitations and accompanying recordkeeping and reporting requirements to assure that the site is operated as a non-major source.

II. SOURCE DESCRIPTION

These three generators are used by the City of Fairfield to generate electrical power for the community during peak demand periods which usually occur during the summer months. Each generator consists of a reciprocating engine which drives an electric generator by means of a rotating shaft. The reciprocating engines are driven by the combustion of diesel fuel.

II. EMISSIONS

Air pollutants are generated when the reciprocating engines are in operation. These emissions occur from the combustion of diesel fuel and are exhausted through a pipe to a vent located on the roof.

The primary air pollutants from the reciprocating engines 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 oil.

The proposed permit includes limitations that restrict the potential annual emissions of NO_x, CO, VOM, and SO₂ to levels below major source thresholds.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board's emission standards. The Board's 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 reciprocating engines. This site readily complies with those Board standards.

V. PROPOSED PERMIT

The conditions of the proposed permit contain limitations and requirements to assure that this site will be operated as a non-major source. The permit establishes limitations on the amount of fuel which may be burned. The City of Fairfield is committing to burn very low sulfur oil. This would allow an increase in the amount of fuel which may be burned, without any increase in the allowed emissions.

The permit conditions also establish appropriate compliance procedures, including record keeping requirements and reporting requirements. The city must carry out these procedures on a continual basis to demonstrate that the generators are operating within the limitations established by the permit.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that these generators meet all applicable state and federal air pollution control requirements, subject to the conditions of the draft permit. The Illinois EPA is therefore proposing to issue a permit with federally enforceable limits for the above referenced equipment to the City of Fairfield.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. Comments, questions, and information requests should be directed to Youra Benofamil at the Illinois Environmental Protection Agency, 1021 North Grand Avenue, East, P.O. Box 19506, Springfield, Illinois, 62794-9506: Phone 217/782-2113. If there is significant public interest in this matter, the Illinois EPA may hold a public hearing in accordance with 35 Ill. Adm. Code Part 164.

YB:77080053:jar