

I. INTRODUCTION

The City of Breese has applied for a Clean Air Act Permit Program (CAAPP) permit for its Municipal Power Plant located at 800 North First Street in Breese. The CAAPP is the program established in Illinois to issue the operating permits required for certain sources by the federal Clean Air Act. Unlike the City of Breese's current state operating permit, the conditions in a CAAPP permit are enforceable by both the Illinois Environmental Protection Agency (Illinois EPA) and the USEPA.

II. SOURCE DESCRIPTION

The Breese Municipal Power Plant primarily functions as a peaking station to generate electric power for the community and surrounding area when the normal sources of electrical power are not available, due to planned repair and maintenance, unexpected breakdowns, or high levels of electricity consumption. The significant emission units at this station are the engine driven electric generators.

III. EMISSIONS

The principle air contaminants emitted from the engines are nitrogen oxides (NO_x), volatile organic material (VOM), sulfur dioxide (SO₂), particulate matter (PM), and carbon monoxide (CO) which are the products of combustion of fuel in the engines. The potential for such emissions depends on the type of fuel consumed in the engines. These engines burn either a fuel mixture that is roughly 95% natural gas and 5% distillate oil, or solely distillate oil.

The Breese Municipal Power Plant is required to have a CAAPP permit since it is a major source of NO_x emissions. This permit would limit the maximum annual emissions of NO_x, VOM, SO₂, PM, and CO from all significant emission units combined at the source to 316, 45.7, 5.4, 7.5, and 104 tons/year, respectively. The limit accounts for 20% of the theoretical capacity of the Plant. Historically, based on normal annual operation as a peaking station, which is on the order of less than 2% of the theoretical capacity, the annual emissions have been considerably lower than this. Insignificant activities at the station are not accounted for in the permitted emission limits. These activities include items such as storage tanks of distillate oil, lubricating oil, waste oil, organic liquids, emergency generator, and boiler/heaters.

V. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the Illinois Pollution Control Board ("Board") emission standards. The Board's emission standards represent the basic requirements for sources in Illinois. The Board has SO₂ emission standards for the all

engines listed in the Breese Municipal Power Plant's CAAPP permit, that limit the SO₂ emissions to 2,000 parts per million by volume ("ppmv"). Pursuant to federal rules 40 CFR 72.7(a), the two newest engines (IC-5 and IC-6) are also limited to use distillate oil with an annual average sulfur content of no more than 0.05 percent by weight.

The Board's rules generally limit opacity of the exhaust from the engines to no more than 30%. The applicant has requested permission to exceed this limit during startups of the engines, as it is also allowed by Board's rules, when the engines will be below their normal operating temperature. The applicant has demonstrated that all reasonable efforts will be made to minimize startup emissions, duration of the individual starts, and the frequency of starts including measures such as preheating of the engines, when possible, and reducing loading until the proper operating temperature is reached.

As part of its application, City of Breese has certified that it is in full compliance with applicable requirements. The Illinois EPA's review of the application and on-site inspections also indicate that the station is in compliance. At this time there are no rules, regulations, or requirements with future compliance dates that would apply to the Breese Municipal Power Plant that need to be addressed by this CAAPP permit.

V. CONTENTS OF PERMIT

A CAAPP permit contains conditions listing the applicable state and federal air pollution control regulations that apply to a source. The permit conditions also establish appropriate compliance procedures, including inspection practices, recordkeeping, and reporting to show compliance with these requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the source is operating in accordance with the requirements of the permit. For example, the Permittee is required to maintain a maintenance and repair log to be certain that the engines are being maintained properly.

The permit sets emission limitations, operation, and control requirements for this source so that the source operates within the framework described in the CAAPP application. For example, the permit allows the burning of different fuels in the engines (either a combination of distillate oil and natural gas, or distillate oil only) provided that the engine is in compliance with all applicable regulations. For ease in distinguishing which engines are capable of burning which fuels while remaining in compliance, the engines have been placed in groupings based on their fuel burning capabilities. These limitations are consistent with the historical operation and capacity of the station.

The station has historically been operated as a minor source for hazardous air pollutants (HAPs) and the Breese Municipal Power Plant requested limits in their CAAPP permit so that their potential emissions of HAPs are restricted in such a manner that they continue to not be a major source for HAPs. For this purpose, the CAAPP permit limits this source's emissions of an individual HAP to less than 10 tons/year, and combined HAP emissions to less than 25 tons/year.

The City of Breese's application also requests for "operational flexibility" so that they can burn different fuels in some of the engines. The Permittee shall keep appropriate records of the fuels in each group of engines.

VII. REQUEST FOR COMMENTS

It is the Illinois EPA's preliminary determination that the Breese Municipal Power Plant's application meets the standards for issuance of the proposed permits. The IEPA is therefore proposing to issue the proposed permits, subject to conditions as proposed in the draft permits.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permits. If substantial public interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Adm. Code Part 166.