

- 3a. Maximum hourly fuel consumption of each internal combustion engine shall not exceed the following limits:

<u>Engine</u>	<u>Capacity (KW)</u>	<u>Fuel Consumption (Gallons/Hour)</u>
1	2,412	194.0
2	1,136	91.0
3	2,412	194.0
4	3,500	281.0
5	556	44.0
6	1,000	79.0

- b. These limits are based on information provided in the permit application.
- 4a. Emissions of volatile organic material (VOM) from storage and handling of gasoline shall not exceed 2.0 tons per year. This limits is based on standard USEPA emission factors for breathing and working losses and information provided in the permit application.
- b. The emissions of hazardous air pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
- 5a. 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.
- b. Organic liquid by-products or waste materials shall not be used in any internal combustion engine without written approval from the Illinois EPA.
6. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
7. The Permittee shall maintain records of the following items:
- Hours of operation for each engine (hours/month);
 - Fuel usage for all engines (gallons/month and gallons/year);
 - Natural gas usage for all engines (mmcf/month);
 - Fuel analysis sheet(s) from supplier with each new shipment/purchase of fuel oil indicating heating content and sulfur content.

8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
- 9a. The Permittee shall submit an Annual Emissions Statement to the Agency by May 1st of each year. This report shall include as a minimum: fuel oil consumption, natural gas consumption, and emissions of nitrogen oxide, carbon monoxide, and sulfur dioxide. If there has been no exceedance during the prior calendar year, the Annual Emissions Statement shall include a statement to that effect.
- b. The Permittee shall notify the Illinois EPA within 90 days, after installing natural gas firing capability in an engine.
- c. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

Telephone: 217/782-5811 Facsimile: 217/782-6348

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

Telephone: 618/346-5120 Facsimile: 618/346-5155

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If you have any questions concerning 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:psj

cc: Region 3
Illinois EPA, FOS - CMU
Lotus Notes

I.D.: 157045AAJ
P.N.: 73010726
Facility: City of Red Bud

Attachment A -- Emissions Summary

Emissions from all emission units combined (tons/year):

<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>
98.0	26.1	1.6	2.2	2.8

These limits define the potential emissions from all emission units at the facility and are based on the complete consumption of allotments of oil and natural gas fuels as stated in Condition 2. Calculations are based on standard USEPA emission factors for diesel fuel internal combustion engines and information provided in the permit application. Compliance with these limits shall be determined from a running total of twelve months of data.

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PROJECT SUMMARY

I. INTRODUCTION

The City of Red Bud has submitted an application for renewal of their federally enforceable state operating permit covering an electric power plant that consists of six engine-driven electric generators. This permit classifies the plant as a non-major source of emissions under the Clean Air Act. Therefore, the City of Red Bud will not have to obtain a federal permit under the Clean Air Act Permit Program. The renewal 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 six engine-driven generators are used by the City of Red Bud to generate electrical power for the community during peak demand periods which usually occur during the summer months. Each unit 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 distillate diesel fuel oil.

III. 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 permit conditions also establish appropriate compliance procedures, including record keeping requirements and reporting requirements. The City of Red Bud 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 the source meets 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 to the City of Red Bud.

Comments are requested on this proposed action by the Illinois EPA and the proposed conditions on the draft permit. 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.

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