

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT  
NSPS SOURCE

PERMITTEE

Exelon Generation Company, LLC  
Attn: Terry Steinert  
1411 Opus Place, Suite 250  
Downers Grove, Illinois 60515-1182

Application No.: 73020783                      I.D. No.: 063806AAC  
Applicant's Designation: DRSNSTN              Date Received: December 22, 1999  
Subject: Diesel generators, boilers and cooling towers  
Date Issued: April 19, 2001                      Expiration Date: April 19, 2006  
Location: Lorenzo Road, 4 miles West of I-55, Morris, Grundy County

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of support equipment for the Dresden nuclear generating station, including two - oil fired auxiliary boilers (50 mmBtu/hr each), one - oil fired auxiliary boiler (3.35 mmBtu/hr), five - large diesel generators (three-26 mmBtu/hr and two-38.6 mmBtu/hr), small diesel generators (600 horsepower each or smaller)\* and 48 cooling tower cells pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- \* This permit does not address emergency engines maintained at the source by the Illinois Department of Nuclear Safety.
- 1a. This Federally Enforceable State Operating Permit (FESOP) is issued to limit the emissions of air pollutants from all the emission units combined, as listed in the above paragraph to less than major source thresholds, for example, less than 100 tons per year of nitrogen oxide (NO<sub>x</sub>), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- 2a. The two - 50 mmBtu/hr auxiliary boilers are subject to a New Source Performance Standard (NSPS) for small industrial steam generating units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. These boilers shall only be fired on distillate fuel oil.
- c. i. The sulfur dioxide emissions from each boiler shall comply with the applicable limit of the NSPS, 40 CFR 60.42c(d).

- ii. The opacity from each boiler shall not exceed 20 percent except for one six-minute period per hour of not more than 27 percent opacity pursuant to 40 CFR 60.43c(c). This limit applies at all times except during startup, shutdown or malfunction, as defined at 40 CFR 60.2.

- 3a. Emissions and operation of all equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Fuel Usage</u>		<u>NO<sub>x</sub> Emissions</u>
	<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>	<u>(Ton/Yr)</u>
5 Large Diesel Generators	50,000	240,000	53.8
Small Diesel Generators	15,000	72,000	22.2
3 Auxiliary Boilers	600,000	1,930,000	19.0

These limits are based on AP-42 emission factors for internal combustion units and boilers, and maximum usage of fuel oil.

- b. Compliance with annual limits shall be determined from a running total of twelve months of data.
- 4a. The cooling towers shall each be equipped, operated and maintained with drift eliminators or other comparable features designed to limit the loss of water droplets from the cooling tower to not more than 0.008% of the circulating water flow (0.00008 drift).
- b. The particulate matter (PM<sub>10</sub>) emissions from all 48 cooling tower cells shall not exceed 67.2 tons/year, in total. This limit is based on information in the application indicating a nominal emission rate of 0.32 lb/hour for each cooling tower cell operating at a design flow rate of 17,750 gallons/minute and continuous operation of all 48 cooling tower cells.
- 5a. i. Each gasoline storage tank shall be equipped and operated with a submerged loading pipe pursuant to 35 IAC 218.122(b) and 35 IAC 218.583(a)(1).
- ii. A. The capacity of individual gasoline storage tanks shall be less than 575 gallons, pursuant to 35 IAC 218.583(b).
- B. The monthly gasoline throughput of the gasoline dispensing operation shall not exceed 10,000 gallons/month, unless the Permittee obtains a control construction permit to address applicable requirements of 35 IAC 218.586.
- b. Emissions of volatile organic material (VOM) from storage and handling of gasoline shall not exceed 2.0 ton per year. This limit is based on standard USEPA emission factors for breathing and working losses and information provided in the permit application.

6. 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.
7. 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.
- 8a. Organic liquid by-products or waste materials shall not be used in any internal combustion engine without written approval from the Illinois EPA.
- b. At the above location, the Permittee shall not keep, store, or utilize:
  - i. Distillate fuel oil (Grades No. 1 and 2) with a sulfur content greater than the larger of the following two values:
    - A. 0.28 weight percent, or
    - B. The wt. percent given by the formula: Maximum wt. percent sulfur =  $(0.000015) \times (\text{Gross heating value of oil, Btu/lb})$ .
  - c. The Illinois EPA shall be allowed to sample all fuels stored at the above location.
9. The Permittee shall maintain records of the following items:
  - a. Fuel usage for each generator and for each boiler (gallons/month and gallons/year).
  - b. Emissions of NO<sub>x</sub> for the generators and for the boiler (tons/month and tons/year), compiled on at least a quarterly basis.
  - c. Documentation for sulfur content of fuel oil, e.g., analysis results for representative fuel sample or copies of fuel supplier certifications in accordance with 40 CFR 60.48c(f).
  - d. The Permittee shall keep the following records for cooling towers with supporting data.
    - i. The following reference information for the cooling towers, which shall be updated in the event of significant changes to the operation of the tower:
      - A. Cooling water drift rate (gallons/hour) based on representative operation of the cooling towers; and

- B. Cooling water total solids (total dissolved solids and total suspended solids) content, based on representative sampling of water discharge.
- ii. The following operating records for each tower:
  - A. Operation of cooling towers (e.g., log for gallons of water processed each day or number of towers operating each hour).
  - B. Total operation of cooling towers (e.g., gallons processed for month or operating hours/month); and
  - C. Emissions of particulate matter (tons/year).
- 10. 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 or USEPA request for records during the course of a source inspection.
- 11a. The Permittee shall submit an Annual Emissions Statement to the Agency by May 1st of each year. This report shall include the fuel oil consumption by the large diesel generators, the small diesel generators and the boilers. If there has been no exceedance during the prior year, the Annual Emissions Statement shall include a statement to that effect.
- b. 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 Agency'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 and efforts to reduce emissions and future occurrences.
- 12. 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

Page 5

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  
9511 West Harrison  
Des Plaines, Illinois 60016

Telephone: 847/294-4000      Facsimile: 847/294-4018

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

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

DES:YB:psj

cc:    Region 1  
      IEPA, FOS, CMU  
      Lotus Notes

Attachment A

This attachment provides a summary of the maximum emissions from the source operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Agency used the annual operating scenario that results in maximum emissions from this source. This is handling 2,242,000 gallons of distillate fuel oil. The resulting maximum emissions are below the levels, e.g., 100 tons per year of NO<sub>x</sub> at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

1. Emissions from the five large diesel generators:

<u>Pollutant</u>	<u>Emission Rate (Lb/mmBtu)</u>	<u>Fuel Usage (Gal/Yr)</u>	<u>Emissions (Ton/Yr)</u>
NO <sub>x</sub>	3.20	240,000	53.80
CO	0.85	240,000	14.50
SO <sub>2</sub>	1.01 * 0.28=0.2828	240,000	4.83
VOM	0.09	240,000	1.54
PM	0.0697	240,000	1.19

2. Emissions from small diesel generators:

<u>Pollutant</u>	<u>Emission Rate (Lb/mmBtu)</u>	<u>Fuel Usage (Gal/Yr)</u>	<u>Emissions (Ton/Yr)</u>
NO <sub>x</sub>	4.41	72,000	22.20
CO	0.95	72,000	4.87
SO <sub>2</sub>	0.29	72,000	1.48
VOM	0.36	72,000	1.84
PM	0.31	72,000	1.60

3. Emissions from the three boilers:

<u>Pollutant</u>	<u>Emission Rate (Lb/1000 Gal)</u>	<u>Fuel Usage (Gal/Yr)</u>	<u>Emissions (Ton/Yr)</u>
NO <sub>x</sub>	20.0	1,930,000	19.00
CO	5.0	1,930,000	4.82
SO <sub>2</sub>	39.76	1,930,000	38.37
VOM	0.34	1,930,000	0.33
PM	2.0	1,930,000	1.93

4. Emissions from the 48 cooling tower cells:

<u>Pollutant</u>	<u>Emission Rate For Drift Loss</u>	<u>Flow Rate (Gallon/Min)</u>	<u>Emissions (Tons/Year)</u>
PM <sub>10</sub>	0.008%	17,750	67.20

YB:psj