

Michigan Department of Environmental Quality
Air Quality Division

State Registration Number

B2808

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number

MI-ROP-B2808-2012

**Detroit Edison
Northeast Peaker Generating Units**

SRN: B2808

Located at

6401 East Eight Mile Road, Warren, Macomb, Michigan 48091

Permit Number: MI-ROP-B2808-2012

Staff Report Date: October 10, 2011

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) requires that the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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October 10, 2011 STAFF REPORT

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with a ROP pursuant to Title V of the federal Clean Air Act of 1990 and Michigan's Administrative Rules for air pollution control pursuant to Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft permit terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft permit pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	Detroit Edison Northeast Peaker Generating Units 6401 East Eight Mile Road Warren, Michigan 48091
Source Registration Number (SRN):	B2808
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201100039
Responsible Official:	Mr. Thomas J. Tanciar, Plant Manager-Peakers 313-897-1065
AQD Contact:	Rebecca Loftus, Environmental Quality Analyst 586-753-3735
Date Permit Application Received:	May 5, 2011
Date Application Was Administratively Complete:	May 17, 2011
Is Application Shield In Effect?	Yes
Date Public Comment Begins:	October 10, 2011
Deadline for Public Comment:	November 9, 2011

Source Description

The Detroit Edison Northeast Peaking Station Units are located at 6401 Eight Mile Road, Warren, Michigan in an area zoned industrial. The nearest commercial building is approximately 1,500 feet away and the nearest residential building is approximately 2,000 feet away. This peaking station's function is to provide electrical power during peak periods of consumer demand occurring mainly in the summer months.

The facility is composed of four natural gas fired combustion turbine generators, one No. 2 fuel oil or natural gas fired combustion turbine generator, and two No. 2 fuel oil fired jet turbine generators. The units were commissioned between September 1966 and June 1971, and no modifications have been reported. Each unit has a separate building and stack.

The facility emits several criteria pollutants including carbon monoxide, particulate, volatile organic compounds (VOCs), sulfur oxides, and nitrogen oxides. It is considered a major source for criteria pollutants based upon potential to emit nitrogen oxides under Section 111 of the Clean Air Act.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System in the **2010** submittal.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	0.53
Lead (Pb)	0.00008
Nitrogen Oxides (NO _x)	7.08
Particulate Matter (PM)	0.21
Sulfur Dioxide (SO ₂)	0.0076
Volatile Organic Compounds (VOCs)	0.12
Individual Hazardous Air Pollutants (HAPs) **	
Total Hazardous Air Pollutants (HAPs)	

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

In addition to the pollutants listed above that have been reported in MAERS, the potential to emit of Greenhouse Gases in tons per year of CO₂e is 4,628,304.8 tons. CO₂e is a calculation of the combined global warming potentials of six Greenhouse Gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

See Parts C and D in the draft ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is located in Macomb County, which is currently designated by the U.S. Environmental Protection Agency (USEPA) as a non-attainment area with respect to the PM 2.5 standard.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR), Part 70, because the potential to emit nitrogen oxides exceeds 100 tons per year and the potential to emit of Greenhouse Gases calculated as carbon dioxide equivalents (CO₂e) is 100,000 tons per year or more.

No emissions units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451 or 40 CFR, Part 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.

At this time, there are no GHG applicable requirements to include in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR 98 is not an ROP applicable requirement and is not included in the ROP.

Emission Units EU CTG11-2, EU CTG11-3, and EU CTG11-4 were installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR.

Although Emission Units EU CTG12-1, EU CTG11-1, EU CTG13-1, and EU CTG13-2 were installed after August 15, 1967, this equipment was exempt from NSR permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

EUPARTWASHER has been removed from the ROP because the associated equipment was permanently removed from the facility on June 1, 2005.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

No emission units are subject to the federal Compliance Assurance Monitoring rule under 40 CFR, Part 64, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-B2808-2006 are identified in Appendix 6 of the ROP.

PTI Number			
NA	NA	NA	NA

Streamlined/Subsumed Requirements

This permit does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the draft ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the draft ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

There were no processes listed in the ROP application as exempt devices under Rule 212(4). Exempt devices are not subject to any process-specific emission limits or standards in any applicable requirement.

Draft ROP Terms/Conditions Not Agreed to by Applicant

This permit does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by the DEQ

The AQD proposes to approve this permit. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the U.S. Environmental Protection Agency (USEPA) is allowed up to 45 days to review the draft permit and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Mr. Christopher Ethridge, Acting Southeast Michigan District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

**November 21, 2011 STAFF REPORT
ADDENDUM**

Purpose

A Staff Report dated October 10, 2011 was developed in order to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by R 336.1214(1). The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in R 336.1214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Mr. Thomas J. Tanciar, Plant Manager-Peakers 313-897-1065
AQD Contact:	Rebecca Loftus, Environmental Quality Analyst 586-753-3735

Summary of Pertinent Comments

1. EPA requested that the source-wide PTI, MI-PTI-B2808-2006, be added under Appendix 6.

AQD Response: Source-wide PTI, MI-PTI-B2808-2006, is being incorporated into the new ROP and is being reissued with the identifier MI-PTI-B2808-20XX. Appendix 6 documents that the existing Source-wide PTI is being "reissued", therefore AQD staff added Source-wide PTI, MI-PTI-B2808-2006, to Appendix 6.

2. The company believes additional language needs to be added to MDEQ's Staff Report to assure the exemptions allowed in the Michigan rules are applied to the facility (for example, under "Regulatory Analysis"):

Detroit Edison's Northeast Peaker's Generating Units operate devices and conducts activities related to those devices which are exempt from the requirements to obtain a Permit to Install or to be included in the ROP under Part 2 of the Michigan Air Rules as amended 7/1/2003. These devices and activities could include:

1. Rule 282(b) for fuel burning space heaters, including (ii) Number 1, or 2 fuel oil, distillate oil, gaseous fuels in paragraph (i), or combinations which contains not more than 0.40% sulfur by weight and equipment rated not more than 20,000,000 Btu/hr.
2. Rule 280, including comfort air conditioning and ventilation systems;
3. Rule 281, including vacuum cleaning systems, portable steam cleaning equipment, blast cleaning / portable blast cleaning equipment, and washing / drying equipment (not using VOCs and no fuel burned);
4. Rule 283, including laboratory, hydraulic/hydrostatic testing equipment, equipment for the inspection of metal, wood or plastic products, and process sample valves;
5. Rule 284, including containers for storage and surge capacity of lubricating, hydraulic, and thermal oils and indirect fluids; storage of ASTM-D-96 specified No. 1 to No. 6 fuel oils;

storage of inorganic salt water solutions, bases and certain acids, pressurized storage of acetylene, hydrogen, oxygen, or other substances;

6. Rule 285, including routine maintenance, parts replacement or other repairs as specified under paragraph (a) – replacement of fans, pumps or motors, piping, hoods and ductwork, or replacement of engines, compressors or turbines as part of routine maintenance program; paragraph (b) – such as raw material formulation, method of raw material addition, equal or more thermally efficient fuel burner replacement; process or process equipment changes as specified under paragraph (c) – such as fuel suppliers, storage location, equal or more efficient like-kind replacement / reconstruction of air pollution control devices, air pollution control for NESHAP compliance, air pollution control to existing process; portable cutting torches; battery charging operations; appropriate soil and fuel spill remediation processes; asbestos removal / stripping; fire extinguisher filling, testing, spraying, and repairing; hand-held aerosol spray can use; and routine and emergency venting of natural gas less than 1,000,000 scf;

Furthermore, Rule 212 (2) lists the following activities as insignificant activities at a stationary source under Part 2 of the Michigan Air Rules as amended 7/1/2003. These devices and activities at Northeast Peakers may include:

1. Rule 212 (2)(h) – storage and handling of drums or other transportable containers;
2. Rule 212 (2)(i) - fire protection equipment, fire fighting and training in preparation for fires;
3. Rule 212 (2)(j) – use, servicing, and maintenance of motor vehicles;
4. Rule 212 (2)(k) – construction, repair, and maintenance of roads;
5. Rule 212 (2)(l) - venting from pressure relief valves and purging of natural gas lines.

AQD Response: Only exempt devices that are listed in Rule 212(4) and not subject to any process-specific emission limits or standards need to be included in the ROP staff report. The devices and activities listed above are not specifically identified in Rule 212(4). Therefore, these do not need to be included in the ROP staff report.

Changes to the October 10, 2011 Draft ROP

The following changes were made to the October 10, 2011 draft ROP:

1. Source-wide PTI, MI-PTI-B2808-2006, was added to Appendix 6.