

State Registration Number
B4001

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-B4001-2024

Lansing Board of Water and Light - Delta Energy Park

State Registration Number (SRN): B4001

Located at

3725 South Canal Street, Lansing, Eaton County, Michigan 48917

Permit Number: MI-ROP-B4001-2024

Staff Report Date: October 30, 2023

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) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

TABLE OF CONTENTS

OCTOBER 30, 2023 - STAFF REPORT	3
DECEMBER 11, 2023 - STAFF REPORT ADDENDUM	9
JANUARY 31, 2024 - STAFF REPORT ADDENDUM	10

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RENEWABLE OPERATING PERMIT

OCTOBER 30, 2023 - STAFF REPORT

ROP Number

MI-ROP-B4001-2024

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan’s Administrative Rules for Air Pollution Control promulgated under 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 Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP 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:	Lansing Board of Water and Light - Delta Energy Park 1232 Haco Drive Lansing, Michigan 48912
Source Registration Number (SRN):	B4001
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:	202000089
Responsible Official:	Lori Myott, Manager, Environmental Services 517-702-6639
AQD Contact:	Julie Brunner, Environmental Quality Specialist 517-275-0415
Date Application Received:	May 12, 2020
Date Application Was Administratively Complete:	May 12, 2020
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	October 30, 2023
Deadline for Public Comment:	November 29, 2023

Source Description

The Lansing Board of Water and Light - Delta Energy Park (DEP) consists of one electricity generating facility that was co-located with Erickson Station as one stationary source. The stationary source is located in southwest of the City of Lansing in Delta Township, and the surrounding area is mainly commercial and industrial properties.

Erickson Station had one (1) coal-fired boiler capable of generating electric power, a “limited use” diesel fuel-fired auxiliary boiler, coal handling systems and storage, fly ash handling systems and storage, and exempt equipment including fuel storage tanks, an emergency diesel fuel-fired fire pump, and mechanical draft cooling towers. The coal-fired boiler (EU001) was retired on November 28, 2022.

The “limited use” diesel fuel-fired auxiliary boiler (EUAUXBLR) used for building heat, emergency diesel fuel-fired fire pump (EUFPEENGINE), and exempt equipment including fuel storage tanks located at Erickson Station are still in use.

The fly ash handling systems that were associated with Erickson Station are located on an adjacent property northeast of the facility on Millett Highway. The Millet Highway Ash Handling and Storage Facility consisted of a mass storage structure, 2 storage silos, 2 load out silos, and 4 dust collectors used to transfer, store, and load fly ash as a marketable product or for disposal. A fugitive dust management plan is implemented to ensure the fugitive dust is controlled from the ash handling. The requirements for the dust collectors from the ash handling facility are still in the ROP to be used for cleaning out the ash handling operations.

Adjacent to Erickson Station is the Delta Energy Park (DEP), a combined-cycle, cogeneration facility consisting of three natural gas-fired turbines, two of which have heat recovery steam generators (HRSG) with duct burners (EUCTGSC1, EUCTGHRSG2, EUCTGHRSG3), a natural gas-fired auxiliary boiler (EUAUXBOILER), natural gas-fired space heaters (EUSPACEHTR1, EUSPACEHTR2, EUSPACEHTR3, EUSPACEHTR4), diesel-fired emergency engine generators (EUEMGD, EUFPRICE), and a mechanical draft cooling tower (EUCOOLTWR). DEP is constructed and operating under the requirements of Permit to Install (PTI) No. 74-18D. This PTI will be incorporated into the ROP with this renewal.

The natural gas-fired turbines with heat recovery steam generators (EUCTGHRSG2, EUCTGHRSG3) have emission controls for carbon monoxide (CO), nitrogen oxides (NO_x), and volatile organic compounds (VOCs). Continuous emission monitoring systems (CEMS) are used to measure emissions of carbon monoxide (CO) and nitrogen oxides (NO_x).

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2022**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	128.7
Lead (Pb)	0.0046
Nitrogen Oxides (NO _x)	1,031.1
PM10*	26.6
Sulfur Dioxide (SO ₂)	2,755.8
Volatile Organic Compounds (VOCs)	14.5

* Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

The following table lists potential Hazardous Air Pollutant (HAP) emissions as calculated by the source:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Acetaldehyde	0.4
Acrolein	0.05
Benzene	0.04
1,3 - Butadiene	0.1
Formaldehyde	3.5
Mercury	0.0005
Naphthalene	0.014
Phenanthrene	0.0003
Toluene	1.2
Xylenes	1.5
Total Hazardous Air Pollutants (HAPs)	7.0

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

See Parts C and D in the 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 in Eaton County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 because the potential to emit of carbon monoxide (CO) and nitrogen oxides (NOx) exceeds 100 tons per year.

The stationary source is an area source of HAP emissions because the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act is less than 10 tons per year and the potential to emit of all HAPs combined are less than 25 tons per year.

The owner/operator of Lansing Board of Water and Light - Delta Energy Park (DEP) has requested removal of the provisions of the National Emission Standard for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subpart DDDDD with this ROP renewal. The stationary source is now an area source of HAPs due to the retirement of Erickson Station, and not subject to regulations for major sources of HAPs.

Emission units at Delta Energy Park (DEP) were subject to review under the Prevention of Significant Deterioration (PSD) regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality because at the time of New Source Review permitting the potential emissions of regulated air pollutants was greater than significant. The new DEP facility was subject to PSD review for NO_x, CO, PM10, PM2.5, VOCs, and greenhouse gases (GHGs). PSD review requires a Best Available Control Technology (BACT) analysis, an air quality impact analysis, and an additional impact analysis for each regulated air pollutant for which the project would result in significant emissions.

The natural gas-fired auxiliary boiler designated as EUAUXBOILER is subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc. This subpart requires fuel usage monitoring.

The diesel fuel-fired emergency generators designated EUPENGINE, EUEMGD, and EUPPRICE are subject to the Standards of Performance for Compression Ignition Internal Combustion Engines (CI ICE) promulgated in 40 CFR Part 60, Subparts A and IIII. This subpart contains non-methane hydrocarbon (NMHC) + NO_x, CO, and PM emission limits and associated compliance requirements.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 are subject to the Standards of Performance for Stationary Spark Combustion Turbines promulgated in 40 CFR Part 60, Subparts A and KKKK. This subpart contains a NO_x emission limit, a sulfur fuel content restriction, and associated compliance requirements. If the turbine is associated with a HRSG or duct burner, then the entire process must comply with the NO_x emission limit.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 are subject to the Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units promulgated in 40 CFR Part 60, Subparts A and TTTT. This subpart contains a carbon dioxide (CO₂) emission standard and an associated calculation method.

The diesel fuel-fired emergency generators designated EUPENGINE, EUEMGD, and EUPPRICE are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. Compliance with 40 CFR Part 63, Subpart ZZZZ is demonstrated through compliance with 40 CFR Part 60, Subpart IIII.

A 1000-gallon double-walled above ground storage tank (AST) containing unleaded gasoline designated EUGASAST is subject to the National Emissions Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities promulgated in 40 CFR Part 63, Subparts A and CCCCC. The AQD is not delegated the regulatory authority for this area source MACT.

The "limited use" diesel fuel-fired auxiliary boiler designated EUAUXBLR is subject to the National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR Part 63, Subparts A and JJJJJJ. The AQD is not delegated the regulatory authority for this area source MACT.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 at the stationary source are subject to the federal Acid Rain program promulgated in 40 CFR Part 72.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 at the stationary source are subject to the Cross-State Air Pollution Rule NO_x Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 at the stationary source are subject to the Cross-State Air Pollution Rule NO_x Ozone Season Group 3 Trading Program pursuant to 40 CFR Part 97, Subpart GGGGG.

The natural gas-fired turbines designated as EUCTGSC1, EUCTGHRSG2, and EUCTGHRSG3 at the stationary source are subject to the Cross-State Air Pollution Rule SO₂ Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

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 have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring (CAM) rule pursuant to 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 or meet the CAM exemption for a continuous compliance determination method.

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-B4001-2015 are identified in Appendix 6 of the ROP.

PTI Number			
43-70*	949-78	967-78*	675-81
224-88*	53-89*	72-92	71-15

* Process/equipment discontinued and/or dismantled. PTI not in the draft ROP.

Streamlined/Subsumed Requirements

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

Non-applicable Requirements

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

Processes Not in the Draft ROP

There were no PTI exempt processes listed in the ROP Application pursuant to Rule 212(4) that were not included in the Draft ROP.

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP 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 EGLE, AQD

The AQD proposes to approve this ROP. 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 USEPA is allowed up to 45 days to review the draft ROP 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 Robert Byrnes, Lansing District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP 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.

State Registration Number
B4001

RENEWABLE OPERATING PERMIT
DECEMBER 11, 2023 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-B4001-2024

Purpose

A Staff Report dated October 30, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. 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 Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Lori Myott, Manager, Environmental Services 517-702-6639
AQD Contact:	Julie Brunner, ROP Central Unit Supervisor 517-275-0415

Summary of Pertinent Comments

One comment was received during the 30-day public comment period from the company.

All of the emission units associated with ash handling equipment, including particulate control devices, used to transfer fly ash generated at Erickson Station to the Millett Hwy Ash Handling and Storage Facility were retired as of November 21, 2023.

Changes to the October 30, 2023 Draft ROP

The following changes were made to the draft ROP:

The emission units named EUASHDC1, EUASHDC2, EUASHDC3, and EUASHDC4 were removed from the ROP. The flexible group named FGASHHANDLING and special conditions for the flexible group were removed from the ROP.

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RENEWABLE OPERATING PERMIT
JANUARY 31, 2024 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-B4001-2024

Purpose

A Staff Report dated October 30, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 45-day EPA comment period as described in Rule 214(6). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Lori Myott, Manager, Environmental Services 517-702-6639
AQD Contact:	Julie Brunner, ROP Central Unit Supervisor 517-275-0415

Summary of Pertinent Comments

One comment was received during the 45-day EPA comment period. EPA recommended that General Condition 19 be updated to reflect that annual compliance certifications be submitted electronically through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI).

Changes to the December 11, 2023 Proposed ROP

General Condition 19 was updated for electronic submissions to the EPA as follows:

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The annual compliance certification (pursuant to Rule 213(4)(c)) shall be submitted to the USEPA through the USEPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (<https://cdx.epa.gov/>), unless it contains confidential business information then use the following address: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**