APPENDIX 34

Additional Documentation of Electric Generating Unit (EGU) Retirements

APPENDIX 34-A

Additional Documentation of EGU Retirements

ST. CLAIR / BELLE RIVER POWER PLANT

- St. Clair Boiler 1 (3/27/2019)
- St. Clair Boiler 2 (5/31/2022)
- St. Clair Boiler 3 (5/31/2022)
- St. Clair Boiler 4 (11/13/2017)
- St. Clair Boiler 6 (5/31/2022)
- St. Clair Boiler 7 (5/31/2022)

7-25-2023 Michigan AQD Inspection Report for St. Clair / Belle River Power Plant; pp. 1-2 of 25

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B279668883

FACILITY: ST. CLAIR / BELLE RIVER POWER PLANT		**SRN / ID:** B2796
LOCATION: 4505 King Road, CHINA TWP		**DISTRICT:** Warren
CITY: CHINA TWP		**COUNTY:** SAINT CLAIR
CONTACT: Jason Roggenbuck , Technical Supervisor		**ACTIVITY DATE:** 07/25/2023
STAFF: Mark Dziadosz	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY 2023 Inspection.		
RESOLVED COMPLAINTS:		

On July 25, 2023, I, Michigan Department of Environment Great Lakes and Energy-Air Quality Division staff Mark Dziadosz along with Marie Reid, conducted a scheduled inspection of the Belle River Power Plant (BRPP) & Blue Water Energy Center (BWEC), located at 4505 King Road, China Township, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); the administrative rules; the conditions of Renewable Operating Permit (ROP) No. MI-ROP-B2796-2015c; and the conditions of PTI Nos. 19-18 and 19-18B.

The SC/BRPP (SRN: B2796) renewable operating permit (ROP) currently consists of seven sections:

Section 1. ST. CLAIR POWER PLANT

Section 2. ST. CLAIR – DIESEL GENERATOR – PEAKERS

Section 3. BELLE RIVER POWER PLANT

Section 4. BELLE RIVER, PEAKERS

Section 5. Dean Peakers

Section 6. BELLE RIVER FUELS COMPANY, LLC

Section 7. ST. CLAIR FUELS COMPANY, LLC

I entered the facility and met with Mr. Jason Roggenbuck, Environmental Engineer. Mr. Roggenbuck escorted me throughout the inspection and provided records via email.

SECTION 1: ST. CLAIR POWER PLANT

St. Clair Power Plant consists of the following emission units:

EU-BOILER1-SC, a.k.a Unit No. 1: 150 MW Coal fired boiler – retired

EU-BOILER2-SC, a.k.a Unit No. 2: 150 MW Coal fired boiler– retired

EU-BOILER3-SC, a.k.a Unit No. 3: 150 MW Coal fired boiler– retired

EU-BOILER4-SC, a.k.a Unit No. 4: 150 MW Coal fired boiler – retired

EU-BOILER6-SC, a.k.a Unit No. 6: 350 MW Coal fired boiler– retired

EU-BOILER7-SC, a.k.a Unit No. 7: 450 MW Coal fired boiler– retired

All boilers at the SCPP have been retired. The are still ancillary operations ongoing related to coal handling and maintenance.

EU-RAILCAR-SC

EU-RAILCAR-SC is an ROP flexible group for the rail car coal dumper house. The enclosed rail car coal dumper house has a PM limit for the baghouse exhaust. VE readings and proper maintenance on the baghouse are surrogates for verifying the PM limit. VE readings are required every seven days during coal dumping activity. Method 9 reading is required at least once a year during maximum routine operating conditions. These operations have been discontinued and the dust collectors related to this flexible group have been removed.

Per VI.1, the permittee provided records of coal deliveries in tons per month and 12-month rolling average. In the time period reviewed, there were no deliveries. The rolling 12-month average was 1,315,3 tons in November 2022 and 0 in December 2022.

Per VI.2, the permittee provided records of visible emission observations, which indicated zero visible emissions.

Per VI.3, the permittee provided records of PM emissions. The monthly PM emissions have been 0 all of 2023. The 12-Month Rolling PM emissions was 0.00003 tons at the end of May 2023.

FG-ASH_HAND-SC

FG-ASH_HAND-SC is a flexible group for the flyash collection and handling. There is a PM limit for the fly ash silo loadout exhaust stacks. Weekly VE readings and proper baghouse maintenance are surrogates for verifying the PM limit. I reviewed weekly VE readings. Fly ash generated by the plant is taken to the landfill. Water is added to the fly ash during the fly ash loading. There is no particulate control system installed for controlling fugitive dust from the loadout area. The loadout area is enclosed on three sides. The South Fly Ash Silo serves Units 1-4 while the North Fly Ash Silo serves Units 6 and 7. Method 9 VE readings are conducted on each baghouse stack a minimum of once per calendar year. With the retirement of the Boilers at SCPP, these conditions are no longer relevant since ash handling no longer occurs.

APPENDIX 34-B

Additional Documentation of EGU Retirements

ST. CLAIR / BELLE RIVER POWER PLANT

- St. Clair Boiler 1 (3/27/2019)
- St. Clair Boiler 2 (5/31/2022)
- St. Clair Boiler 3 (5/31/2022)
- St. Clair Boiler 4 (11/13/2017)
- St. Clair Boiler 6 (5/31/2022)
- St. Clair Boiler 7 (5/31/2022)

2-19-2024 Renewable Operating Permit Staff Report for DTE ELECTRIC COMPANY St. Clair Power Plant/Belle River Power Plant/Blue Water Energy Center; pp. 1-7 of 15

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division

State Registration Number	ROP Number
B2796	MI-ROP-B2796-2024

RENEWABLE OPERATING PERMIT STAFF REPORT

DTE ELECTRIC COMPANY
St. Clair Power Plant/Belle River Power Plant/Blue Water Energy Center

State Registration Number (SRN): B2796

Located at

4505 King Road, China Township, St. Clair County, Michigan 48054

Permit Number: MI-ROP-B2796-2024

Staff Report Date: February 19, 2024

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).

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Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State

Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B2796 MI-ROP-B2796-2024

FEBRUARY 19, 2024 - STAFF REPORT

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:	DTE Electric Company St. Clair/Belle River Power Plant/Blue Water Energy Center 4505 King Road China Township, Michigan 48054-4420
Source Registration Number (SRN):	B2796
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	3
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900198
Responsible Official – Section 1, Belle River Power Plant:	Mark Chesney, Plant Manager, Energy Supply 810-300-0242
Responsible Official – Section 2, Peakers	Biljana Pecov, Plant Manager, Energy Supply 248-342-3621
Responsible Official – Section 3, Blue Water Energy Center	Lezley Filzek, Plant Manager, Energy Supply 586-484-5197
AQD Contact:	Kerry Kelly, Senior Environmental Quality Analyst 586-506-9817
Date Application Received:	December 3, 2019
Date Application Was Administratively Complete:	December 3, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	February 19, 2024
Deadline for Public Comment:	March 20, 2024

Source Description

The DTE Electric Company St. Clair/Belle River Power Plant/Blue Water Energy Center is an electric generating facility composed of: St. Clair Power Plant located at 4901 Pointe Drive, East China; Belle River Power Plant located at 4505 King Road, China Township; and Blue Water Energy Center located at 4400 River Road, China Township in St. Clair County. Included in this electric generating facility are the Peakers. St. Clair Power Plant had been in operation since the mid-1950's; Belle River Power Plant has been operational since 1984; and Blue Water Energy Center since November 2021.

The power plants, including the peaking units, are considered a single stationary source based on the definition found in Michigan Administrative Rule 119(r).

St. Clair Power Plant had consisted of the following coal-fired boilers: EU-BOILER1-SC, EU-BOILER2-SC, EU-BOILER3-SC, EU-BOILER4-SC, EU-BOILER6-SC, EU-BOILER7-SC. The St. Clair boilers were also permitted to be fired with fuel oil no. 6, fuel oil no. 2, off-specification recycled used oil, and biodiesel (Boiler 7 only). DTE submitted documentation to EGLE-AQD and USEPA stating that each of the boilers at St. Clair Power Plant have been permanently retired. According to the documentation, EU-BOILER1-SC was permanently retired March 27, 2019, EU-BOILER4-SC was permanently retired on November 13, 2017, and EU-BOILER2-SC, EU-BOILER3-SC, EU-BOILER6-SC, and EU-BOILER7-SC were permanently retired on May 31, 2022. DTE sent a letter to EGLE-AQD Permit Section requesting the Permits to Install (PTI) for EU-BOILER2-SC, EU-BOILER3-SC, EU-BOILER4-SC, EU-BOILER6-SC, EU-BOILER7-SC (PTI Nos. 149-18 and 16-22) be voided. PTI Nos. 149-18 and 16-22 were voided on January 17, 2023 and December 20, 2022 respectively.

The Belle River Power Plant, Section 1, has two electric generating units (EU-BOILER1-BR and EU-BOILER2-BR), each with a maximum gross design generating output of 697 MW. Pulverized coal is the primary fuel for the boilers at Belle River Power Plant.

Blue Water Energy Center has two natural gas-fired Combustion Turbine Generators (CTG) (EUCTGHRSG1, EUCTGHRSG2) rated at 3,658 million British Thermal Units per hour (MMBTU/hr) each.

The stationary source's 15 peaking units are now combined in Section 2 of the ROP. All Peakers were combined into one section because they are now under control of a single authorized representative. The Belle River Peakers consist of five 2.5 MW diesel electric generators (EU-DG11-1-BP, EU-DG11-2-BP, EU-DG11-3-BP, EU-DG11-4-BP, EU-DG11-5-BP) and three 82.4 MW natural gas-fired combustion turbine electric generators (EU-CTG12-1-BP, EU-CTG12-2-BP, EU-CTG13-1-BP); the St. Clair Peakers consist of one 23 MW natural-gas fired combustion turbine electric generator (EU-CTG11-1-SP) and two 2.75 MW diesel electric generators (EU-DG12-1-SP, EU-DG12-2-SP); and the Dean Peakers consist of four 82.4 MW each natural gas-fired combustion turbine electric generators (EU-CTG12-2-DP, EU-CTG12-1-DP, EU-CTG11-1-DP, EU-CTG11-2-DP).

The St. Clair Fuels Company and Belle River Fuels Company, reduced emissions fuel processing plants, chemically treated coal with materials that reduce mercury and acid gas emissions. The emission units at St. Clair Fuels Company were retired July 20, 2021. In a letter dated September 12, 2023, DTE stated Belle River Fuels Company, LLC (Section 4) has ceased operations and will not operate in the future. The requirements for St. Clair Fuels Company and Belle River Fuels Company were removed from the ROP.

Particulate emissions from St. Clair Power Plant and Belle River Power Plant were/are controlled through the use of electrostatic precipitators and baghouses. Nitrogen oxides are controlled by installing low-NOx burners in the boilers and combustion turbines. The CTGs at Blue Water Energy Center are equipped with a combined oxidation catalyst for the control of CO and VOCs, and selective catalytic reduction (SCR) with dry low NOx burners for the control of nitrogen oxides.

EU-BOILER1-BR and EU-BOILER2-BR at Belle River Power Plant are equipped with Continuous Emissions Monitoring Systems (CEMs) to measure gas flow, particulate matter, sulfur dioxide, carbon dioxide, nitrogen oxides and opacity.

The Belle River and Dean CTGs (EU-CTG12-1-BP, EU-CTG12-2-BP, EU-CTG13-1-BP, EU-CTG12-2DP, EU-CTG12-1-DP, EU-CTG11-1-DP, and EU-CTG11-2-DP) are equipped with CEMs to monitor the nitrogen oxide and carbon monoxide emissions and oxygen content of the exhaust gas.

EU-CTGHRSG1-BW, EU-CTGHRSG2-BW at Blue Water Energy Center are equipped with CEMs to monitor the nitrogen oxide and carbon monoxide emissions and oxygen content of the exhaust gas.

Other emission sources at the power plants include auxiliary boilers, flyash handling systems, coal handling systems, a railcar coal dumping facility, and cold parts cleaners.

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)	11,739
Lead (Pb)	0.03
Nitrogen Oxides (NO_x)	246
PM10*	30
Sulfur Dioxide (SO_2)	24
Volatile Organic Compounds (VOCs)	48

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

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2022 by DTE Electric Company:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Hydrogen Chloride (HCl)	40
Hydrogen Flouride (HF)	11
Total Hazardous Air Pollutants (HAPs)	53

**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 nonapplicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

DTE Electric Company is a stationary source, located in St. Clair County, and is engaged in the generation of electricity for sale. A portion of St. Clair County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the SO_2 standard. The stationary source is located within the portion of St. Clair County currently designated by the USEPA as non-attainment with respect to the SO_2 standard.
The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of all criteria pollutants exceeds 100 tons per year, and the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

EU-BOILER1-BR and EU-BOILER2-BR at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of carbon monoxide was greater than 100 tons per year.

EU-CTG12-1-BP, EU-CTG12-2-BP, EU-CTG13-1-BP, EU-CTG12-2-DP, EU-CTG12-1-DP, EU-CTG11-1DP, and EU-CTG11-2-DP at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit carbon monoxide was greater than 100 tons per year, the potential to emit nitrogen oxides was greater than 40 tons per year, and the potential to emit PM10 is greater than level of 15 tons per year.

EU-CTGHRSG1-BW, EU-CTGHRSG2-BW, EU-AUXBOILER-BW, EU-FUELHTR1-BW, EU-FUELHTR2BW, EU-EMENGINE-BW, EU-FPENGINE-BW, and EU-SPACEHEATERS-BW at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit nitrogen oxides (NOx), carbon monoxide (CO), particulate matter (PM), particulate matter less than 10 microns in diameter (PM10), particulate matter less than 2.5 microns (PM2.5), volatile organic compounds (VOCs), sulfuric acid mist (H2SO4), and greenhouse gases as carbon dioxide equivalent (CO2e) were greater than 100 tons per.

EU-CTGHRSG1-BW, EU-CTGHRSG2-BW, EU-AUXBOILER-BW, EU-FUELHTR1-BW, EU-FUELHTR2-BW, EU-EMENGINE-BW, EU-FPENGINE-BW, EU-CTLUBEOILTANKS-BW, EU-STLUBEOILTANKSBW, EU-STHYDROOILTANK-BW, EU-STSEALOILTANK-BW, EU-FUELOILTANK-BW, EU-GCLUBEOILTNKS-BW, EU-BFPOILTANKS-BW, EU-EMFUELTANK-BW, EU-DLNNH3TANKS-BW, EU-SPACEHEATERS-BW, EU-COOLINGTOWER-BW, EU-COLDCLEANER-BW: Sulfur dioxide emissions did not undergo BACT review because DTE chose to limit the total annual SO_2 emissions to less than significance levels for the Blue Water project. Restrictions were added to the final permit (PTI No. 19-18) to ensure that the total SO_2 emissions from the facility will remain under 40 tpy.

The source has applicable requirements for GHG as a result of review under the Prevention of Significant Deterioration regulations. These Best Available Control Technology (BACT) requirements for GHG are included in the ROP. The mandatory Greenhouse Gas Reporting Rule under 40 CFR Part 98 is not an ROP applicable requirement and is not referenced in the ROP.

Although EU-CTG11-1-SP, EU-PARTSCLN-SC, EU-FIREPUMP-SC, EU-PARTSCLN-BR, EU-FIREPUMP-BR, EU-DG12-1-SP, and EU-DG12-2-SP, were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

Part 7 rules apply to FG-COLDCLNRS-SC, FG-COLDCLNRS-BR, FG-ISLANDS-BR, and EU-COLDCLNR-BW.

R 336.1224 applies to FG-ISLANDS-BR, EU-AUXBOILER-BW, FG-CTGHRSG-BW, FG-FUELHTR-BW, FG-TANKS-BW, and FG-SPACEHTRS-BW.

R 336.1225 applies to FG-BOILERS-BR, FG-ISLANDS-BR, FG-CTG-BP, FG-CTG-DP, FG-REF-BRFC, EU-AUXBOILER-BW, EU-EMENGINE-BW, EU-FPENGINE-BW, FG-CTGHRSG-BW, FG-FUELHTR-BW, FG-TANKS-BW, and FG-SPACEHTRS-BW.

The following is a list of significant changes from the previous ROP (MI-ROP-B2796-2015c):

- Removed EU-BOILER2-SC, EU-BOILER3-SC, EU-BOILER6-SC, EU-BOILER7-SC, FG-BLR_GEN-SC, FG-BLR2-3-SC, FG-ASH_HAND-SC, FG-ESPCAM-SC, FG-ISLANDS-SC, FG-MATS-SC, & Acid Rain Permit. These EUs and FGs were retired May 31, 2022.
- St. Clair Fuels Company LLC, (Section 7) and Belle River Fuels Company, LLC (Section 4) in MI-ROP-B2796-2015c ceased operations in 2022 and were removed from the ROP.
- Removed NOx PEMS conditions from Dean Peakers and inserted NOx CEMS conditions from PTI Nos. 331-98C and 116-01B.
- Added conditions from PTI Nos. 19-18 and 19-18B, applicable to Blue Water Energy Center. Added
- conditions from PTI No. 51-22, applicable to Belle River Power Plant.

EU-BOILER1-BR and EU-BOILER2-BR, at the stationary source are subject to the Standards of Performance for Fossil-Fuel-Fired Steam Generators promulgated in 40 CFR Part 60, Subparts A and D.

EU-CTG12-1-BP, EU-CTG12-2-BP and EU-CTG13-1-BP at the stationary source are subject to the Standards of Performance for Stationary Gas Turbines promulgated in 40 CFR Part 60, Subparts A and GG.

EU-AUXBOILER-BW and FG-FUELHTR-BW at the stationary source are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

EU-EMENGINE-BW, and EU-FPENGINE-BW at the stationary source are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

EU-CTGHRSG1-BW and EU-CTGHRSG2-BW at the stationary source are subject to the Standards of Performance for Stationary Combustion Turbines promulgated in 40 CFR Part 60, Subparts A and KKKK.

EU-CTGHRSG1-BW and EU-CTGHRSG2-BW at the stationary source 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.

EU-FIREPUMP-SC, EU-DG12-1-SP, EU-DG12-2-SP, EU-FIREPUMP-BR, EU-DG11-1-BP, EU-DG11-2BP, EU-DG11-3-BP, EU-DG11-4-BP, EU-DG11-5-BP, EU-EMENGINE-BW and EU-FPENGINE-BW at the stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ.

EU-NAUXBLR-BR, EU-SAUXBLR-BR, EU-AUXBOILER-BW, EU-FUELHTR1-BW and EUFUELHTR2MACT-BW at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD.

EU-BOILER1-BR and EU-BOILER2-BR at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Coal-and-Oil-Fired Electric Utility Steam Generating Units promulgated in 40 CFR Part

63, Subparts A and UUUUU. Part 15 of Michigan Air Pollution Control Rules adopted pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), addresses new requirements pertaining to mercury in the State of Michigan. These rules were intended to limit mercury emissions from electric generation units as of January 1, 2015. Rule 1502a, however, recognizes that the Part 15 permitting requirements defer to 40 CFR Part 63, Subpart UUUUU.

APPENDIX 34-C

Additional Documentation of EGU Retirements

WISCONSIN ELECTRIC POWER COMPANY, Marquette – Presque Isle

- Boiler 5 (4/8/2019)
- Boiler 6 (4/8/2019)
- Boiler 7 (4/8/2019)
- Boiler 8 (4/8/2019)
- Boiler 9 (4/8/2019)

2-4-2020 Michigan AQD Inspection Report for Wisconsin Electric Power Company; pg. 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B426153361

FACILITY: WISCONSIN ELECTRIC POWER COMPANY		**SRN / ID:** B4261
LOCATION: 2701 N LAKESHORE BOULEVARD, MARQUETTE		**DISTRICT:** Marquette
CITY: MARQUETTE		**COUNTY:** MARQUETTE
CONTACT: Nick Rojas , Environmental Engineer		**ACTIVITY DATE:** 02/04/2020
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Targeted inspection; Met with contractor and facility representatives to discuss dismantling and demolition procedures		
RESOLVED COMPLAINTS:		

AQD staff was contacted by the general contractor (Brandenberg) to discuss dismantling of the facility after permanent closure.

AQD staff arrived at the facility on February 4, 2020. All staff had necessary PPE (safety boots, high vis vests, hardhat, safety glasses, hearing protection). After checking in at the security office, the first point of contact was Mr. Nick Rojas from Brandenburg.

Demolition and asbestos abatement activities are planned to take place at Presque Isle Power Plant (PIPP) over the next two years. AQD District Staff (Scanlan, Bruestle, Conklin) met with representatives from the facility and general contractor firm at the facility to do a walk-through prior to demolition activity taking place.

The facility is permantly closed and being dismantled. Asbestos and demolition inspections will continue periodically, however there are no longer any permitted emission units operable and the only concerns at this site are related to demolition and asbestos abatement activities.

NAME Joe Scanlan EJL DATE 1/21/21 SUPERVISOR EJL

APPENDIX 34-D

Additional Documentation of EGU Retirements

DTE – Electric Company TRENTON CHANNEL

- Boiler 9A (7/8/2022)
- Unit 16 (4/16/2016)
- Unit 17 (4/16/2016)
- Unit 18 (4/16/2016)
- Unit 19 (4/16/2016)

8-23-2016 Michigan AQD Inspection Report for DTE – Electric Company Trenton Channel; pp. 1-2 of 8

B2811
mmh

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B281127089

FACILITY: DTE - Electric Company TRENTON CHANNEL		**SRN / ID:** B2811
LOCATION: 4695 W JEFFERSON AVE, TRENTON		**DISTRICT:** Detroit
CITY: TRENTON		**COUNTY:** WAYNE
CONTACT: Mark Nederveld , Environmental Engineer		**ACTIVITY DATE:** 08/23/2016
STAFF: Jonathan Lamb	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Targeted inspection, FY '16		
RESOLVED COMPLAINTS:		

INSPECTED BY: Jonathan Lamb, AQD-Detroit Office
PERSONNEL PRESENT: Mark Nederveld, Environmental Engineer
CONTACT PHONE NUMBER: 734-218-0008 (Mr. Nederveld)

FACILITY BACKGROUND:

DTE Electric Company, Trenton Channel Power Plant (DTE Trenton Channel), is a coal-fired electrical generating plant located along the Detroit River in Trenton, Michigan. The facility was originally constructed in 1924; the only active electric generating unit (EGU) currently at the facility is Unit 9, which was constructed in 1965.

DTE Trenton Channel is a New Source Review major source for carbon monoxide (CO), nitrogen oxides (NOx), sulfur dioxide (Sox), and particulate matter (PM). The source is also a Clean Air Act Section 112 major source for Hazardous Air Pollutants (HAPs), primarily due to the emissions of hydrogen chloride (HCl). Therefore, the source is subject to the Title V program. Unit 9 is also subject to the MACT standards at 40 CFR 63, Subpart UUUUU, and Unit 9 and its electrostatic precipitator (ESP) control is subject to the federal Compliance Assurance Monitoring (CAM) regulation at 40 CFR 64. The diesel Slocum peaker units and emergency generators at the site are subject to the MACT standards at 40 CFR 63, Subpart ZZZZ.

COMPLAINT/COMPLIANCE HISTORY:

On July 24, 2009, and again on March 13, 2013, U.S. EPA Region 5 issued a Notice of Violation and Finding of Violation (NOV/FOV) to DTE Energy for the Trenton Channel, Monroe, St. Clair, River Rouge, and Belle River power plants. EPA cites violations of Rule 301, major New Source Review, NSPS Da, and Title V at the River Rouge power plant. The asserted violations remain unresolved as of the date of this report. Until resolved, the AQD will report DTE Trenton Channel as not in compliance, based on EPA's findings.

PROCESS DESCRIPTION AND EQUIPMENT:

Most coal used at the facility is delivered via rail and is unloaded at the Rail Car Dumper, located on the west side of West Jefferson, across the street from the power plant. To unload the coal, each railcar goes in the enclosed coal dumper and is flipped, dumping the coal from the railcar into the coal feeder bin. This process is controlled by a baghouse. The coal then transported conveyed over West Jefferson via an enclosed conveyor to the coal storage piles, which are segregated based on type of coal. During this transfer, the conveyor crane is adjusted to minimize drop height to reduce fugitive emissions; water sprays are also used to reduce fugitive dust. Some coal (mostly eastern coal) is also delivered via freighter from the Detroit River; water sprayers are used to control fugitive emissions during unloading.

The coal storage piles sit on top of grates, which allow the coal to drop to below-ground conveyors which carry the coal to coal bunkers inside the plant. Coal from the bunkers is fed into the coal mill feeder, which drops the coal into the coal mill, which pulverizes the coal to size 50 mesh. There are six coal mills for unit 9. The pulverized coal is then fed into the boiler using exhaust fans to be burned as fuel. The boiler uses a blend of western subbituminous and eastern bituminous coal, usually at a ratio of roughly 85% western/15% eastern coal; this ratio may vary depending on the market price of coal, coal availability, or to meet regulatory emission limits. Fuel oil is used to fire the boiler during startup; the facility uses an ultra low sulfur No. 2 diesel fuel.

The pulverize coal is fed into Boiler 9A, which is a 520 MW, tangentially-fired boiler. As the boiler burns the fuel and creates heat, the unit generates steam, which is piped to a turbine to create electricity for the grid. Emissions from the boiler are controlled by an ESP and a dry sorbent injection (DSI) and activated carbon

injection (ACI) system. The DSI/ACI system was installed in April 2016 to demonstrate MATS compliance required in Subpart UUUUU, and is injected upstream of the ESP. The DSI uses trona to reduce HCl emissions and ACI uses activated carbon to control Hg emissions. The trona and activated carbon are delivered via pneumatic truck and pumped into and stored in three 200-ton capacity silos.

All emissions from the ESP are exhausted through a 587-foot stack and are monitored using a continuous emission monitoring system (CEMS) and a continuous opacity monitoring system (COMS) to monitor and record emissions and opacity on a continuous basis. Particulate waste from the burning of coal include bottom ash, which is a heavier material which collects at the bottom of the boiler, and lighter fly ash, which is collected from the ESP. There are three bottom ash storage silos and one fly ash silos; both the bottom ash and fly ash are loaded into trucks and taken to DTE's Sibley Quarry for disposal.

At the time of inspection, Unit 9 was in a forced shut down, so Boiler 9A was not operating during the inspection. The installation of three natural gas-fired auxiliary boilers, permitted under Permit to Install (PTI) No. 227-15, was underway, with an expected completion date of late October 2016. The High Side Boilers (Boilers 16 through 19) were shut down in April 2016, and were not evaluated during this inspection.

APPLICABLE RULES/ PERMIT CONDITIONS:

Trenton Channel was issued ROP No. 199600204 on September 22, 2008; the application is currently going through renewal. However, since the issuance of the ROP, Trenton Channel has been issued three PTIs which have superseded many of the conditions listed in ROP No. 199600204. As such, the conditions of the following PTIs were evaluated in determining compliance during this FCE, in addition to the conditions of ROP No. 199600204 which remain applicable:

- PTI No. 125-11C, issued April 29, 2016
- PTI No. 227-15, issued April 29, 2016
- PTI No. 178-14, issued February 4, 2015

for determining compliance, records from August 2015 through August 2016 were reviewed, except where otherwise specified. Records can be found in the orange facility file.

PTI No. 125-11C, Special Conditions:

FG-BOILER_9A&16-19 - Boiler 9A and Boilers 16 through 19. Associated Emission Unit IDs: EU-BOILER_9A, EU-BOILER#16, EU-BOILER#17, EU-BOILER#18, and EU-BOILER#19.

In accordance with PTI No. 125-11C, flexible group FG-BOILER_9A&16-19 dissolved on April 16, 2016, and the permittee was required to comply with the Special Conditions found in EU-BOILER_9A. Since the inspection was conducted on August 23, 2016, after flexible group FG-BOILER_9A&16-19 became obsolete, the Special Conditions associated with this flexible group were not evaluated for the purpose of demonstrating compliance with PTI No. 125-11C.

EU-BOILER_9A – Boiler 9A, a tangentially-fired boiler with 520 MW nameplate capacity.

I. EMISSION LIMITS

The permittee shall comply with the following emission limits effective April 16, 2016, through December 31, 2016:

Pollutant	Limit	Actual Emissions	Compliance Status
1. SO2	90.78 tons per calendar day	Highest daily total SO2 emissions was 67.42 tons on July 12, 2016.	IN COMPLIANCE
2. SO2	16,505 tons for time period of April 16, 2016, through December 31, 2016	2,100 tons of SO2 reported for the time period April 16 through August 31, 2016.	IN COMPLIANCE
3. PM	0.15 pounds per 1000 pounds exhaust gases on a wet basis, corrected to 50% excess air	0.016 pounds per 1000 pounds exhaust gas on a wet basis, corrected to 50% excess air.[1]	IN COMPLIANCE

APPENDIX 34-E

Additional Documentation of EGU Retirements

DTE – Electric Company TRENTON CHANNEL

- Boiler 9A (7/8/2022)
- Unit 16 (4/16/2016)
- Unit 17 (4/16/2016)
- Unit 18 (4/16/2016)
- Unit 19 (4/16/2016)

2-5-2024 City of Trenton News Flash Article, "DTE - Trenton Channel Power Plant News,"
(https://www.trentonmi.org/CivicAlerts.aspx?AID=324)

CITY OF TRENTON

Posted on: February 5, 2024

DTE - Trenton Channel Power Plant News

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DTE - Trenton Channel Power Plant News

DTE Energy's Trenton Channel Power Plant will soon be demolished to make way for new development opportunities. The plant was retired in 2022 after serving the Downriver comm for nearly 100 years. We are proud of the plant's long history of service and are excited to n pave the way for future redevelopment.

The demolition will happen in two phases: we are currently targeting Friday, March 1 for the stacks and Friday, May 17 for the boiler house. These dates may change due to weather conditions. DTE will be sending you periodic updates and will notify you the day before each demolition.

Here's what you can expect

- DTE anticipates limited inconvenience to area residents.
- Demolition will last less than one minute. During this time, nearby residents may hear a short series of loud noises similar to thunder.
- Residents near the project site may detect some mild vibration during the demolition.
- Any temporary dust created by the demolition will dissipate within a few minutes.
- Immediately prior to demolition, vehicle and pedestrian traffic will be briefly interrupted Grosse Ile Parkway and West Jefferson Avenue. No other major road closures are plannSelect Language We do not anticipate any interruption to residential utility services.

Here's how we're making your safety our number one priority

DTE has taken the following measures to ensure protections are in place to minimize environmental risks:

- Hazardous materials have been properly disposed of according to state and federal regulations and have been verified by a third-party, State of Michigan licensed inspecto
- Air and seismic monitoring will be installed around the site and on Grosse Ile.
- All work is being coordinated with local emergency response and regulatory agencies.
- Pressurized water misters will be used to mitigate dust.
- Cleaning crews will be onsite to address any excessive dust at the property. DTE will be holding a Virtual Town Hall meeting via Microsoft Teams at 6 p.m. on Feb. 22 to discuss the project in more detail and to address residents' questions. Click here to attend t meeting. We will also distribute a recording of the meeting the following day for those who attend. In the meantime, please direct any questions to Trenton@dteenergy.com. A member of our will respond within two business days. DTE has also created a website empoweringmichigan.com/Trenton to help keep area residents informed and apprised of the demolition schedule.

Sincerely,
DTE Energy

⇐ **Previous** Channel 4 featured **Next** ⇒ Payment Provider the City of Trenton Change!

Other News in Home - News & Events Items

Downriver Town Hall
Posted on: January 21, 2025

For immediate release: January 16, 2025
Posted on: January 17, 2025

Feds award $73M for bridge over congested Downriver rail crossing
Posted on: January 17, 2025

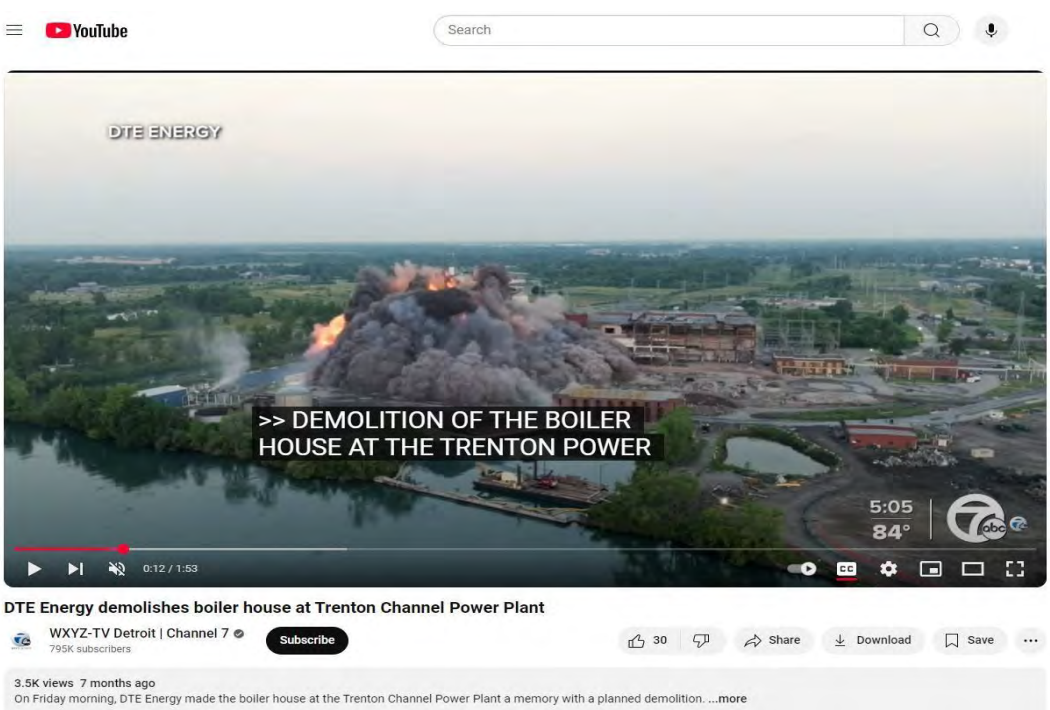
APPENDIX 34-F

Additional Documentation of EGU Retirements

DTE – Electric Company TRENTON CHANNEL

- Boiler 9A (7/8/2022)
- Unit 16 (4/16/2016)
- Unit 17 (4/16/2016)
- Unit 18 (4/16/2016)
- Unit 19 (4/16/2016)

7-21-2024 WXYZ-TV Detroit Channel 7 Video (Screenshot), "DTE Energy demolishes boiler house at Trenton Channel Power Plant," (https://www.youtube.com/watch?v=pMPxfiC4kX8)



APPENDIX 34-G

Additional Documentation of EGU Retirements

Consumers Energy – B.C. Cobb Plant

- Boiler 4 (4/15/2016)
- Boiler 5 (4/15/2016)

1-7-2016 Michigan AQD Inspection Report for B. C. Cobb Plant; pp. 1-2 of 8

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B283632858

FACILITY: B. C. Cobb Plant		**SRN / ID:** B2836
LOCATION: 151 N. Causeway, MUSKEGON		**DISTRICT:** Grand Rapids
CITY: MUSKEGON		**COUNTY:** MUSKEGON
CONTACT: Janet Zondlak ,		**ACTIVITY DATE:** 01/07/2016
STAFF: Steve Lachance	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled Inspection (FCE) for FY '016. See CA_B283632858. (SLachance, 1/8/16)		
RESOLVED COMPLAINTS:		

SL conducted an unannounced inspection of Consumer Energy's BC Cobb Plant at 151 North Causeway, Muskegon, Michigan. On-site activities took place on Thursday, January 7, 2016. The primary purpose of the inspection was to determine the facility's compliance with current Renewable Operating (RO) Permit No. MI-ROP-B2836-2011.

Ms. Janet Zondlak (231-727-6243) of the facility accompanied SL during the inspection; and Mr. Roger Vargo (site CEMS manager) provided assistance with CEMS/COMS discussions and reports. Other BC Cobb personnel (unit operators, etc.) variously assisted during the inspection activities.

On-site activities commenced at about 12:30 PM. Weather conditions were generally calm with partly cloudy skies and temperatures between 40 and 45 degrees F. Upon approaching the site vicinity, SL assessed stack emissions; Visible Emissions were generally assessed as 0-10% opacity.

NOTE: this facility is slated for closure by April 16, 2016. Per Consent Agreement, no electric generation can take place after that date. The MDEQ-AQD has provided an extension for Boiler MACT compliance date until June 30, 2016 to allow for ancillary operations of the auxiliary boiler. All site operations (other than subsequent decommissioning) will be completed prior to the August 9, 2016 expiration of the existing ROP, although the company is conservatively planning on submitting an application for renewal of this permit.

FACILITY DESCRIPTION

The facility is located at 151 North Causeway, Muskegon, Michigan. Muskegon County is currently designated as attainment for all criteria pollutants.

The stationary source is subject to 40 CFR Part 70 because the potential to emit carbon monoxide, sulfur dioxide, nitrogen oxides, and particulate matter exceeds 100 tons.

The stationary source is considered a major source of Hazardous Air Pollutant (HAP) emissions because the potential to emit of a single HAP (hydrogen chloride) regulated by the Clean Air Act, Section 112 is greater than10 tons per year.

The facility is an electricity generating station comprised of five units. Two coal-fired boilers, No's. 4 and 5, operate as base load units, while Unit No's. 1 through 3 were converted from coal to natural gas, are designed to operate as peaking units, but are currently in long-term cold storage status. Emissions from the coal-fired units are controlled through the use of blended eastern and western coal and electrostatic precipitators, while No. 5 is also equipped with low-NOx burners. The facility has Continuous Emissions Monitoring Systems (CEMS) installed on each unit for stack gas flow, carbon dioxide, and nitrogen oxides. Unit No.'s 4 and 5 also have CEMS for sulfur dioxide and a common stack Continuous Opacity Monitoring System (COMS) for opacity.

(Note, per federal consent decree, Units 4 and 5 are slated to cease operations in April, 2016.)

Consumers Energy operates a contiguous coal receiving system on the banks of Muskegon Lake. Coal is stockpiled via radial stacker equipment. Dust control agents are immediately applied as necessary as coal is unloaded. Additional dust control measures include rolling and compacting coal piles along with the use of a water sprinkling system and water trucks. Specific coal handling points are controlled with fabric filter baghouses and enclosures.

Other emission sources at the facility include an auxiliary back-up boiler subject to Standards of Performance for New Stationary Sources, 40 CFR Part 60, Subpart Dc and National Emission Standards for Hazardous Air Pollutants (NESHAP) for Boilers at Major Sources, 40 CFR 63 Subpart DDDDD; emergency standby Reciprocal Internal Combustion Engines (RICE); flyash collection equipment; and cold parts cleaners.

The stationary source was subject to Prevention of Significant Deterioration (PSD) (40 CFR 52.21) review because the modified, gas-fired units have the potential to emit nitrogen oxides and carbon monoxide greater than 100 tons per year. Particulate matter was also subject to PSD review, since the potential to emit was above significant levels.

The NOx limit for FGBOILERS1,2&3 established under PSD/BACT review is more stringent than the limit established for these boilers under 40 CFR 60, Subpart Da.

APPENDIX 34-H

Additional Documentation of EGU Retirements

DTE – Electric Company RIVER ROUGE

- Unit 1 (6/7/2021)
- Unit 2 (4/16/2016)
- Unit 3 (6/1/2021)

7-9-2021 Michigan AQD Inspection Report for DTE Electric Company – River Rouge Power Plant; pg. 1 of 19

B2810
MANILA

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B281059074

FACILITY: DTE Electric Company - River Rouge Power Plant		**SRN / ID:** B2810
LOCATION: 1 BELANGER PARK DRIVE, RIVER ROUGE		**DISTRICT:** Detroit
CITY: RIVER ROUGE		**COUNTY:** WAYNE
CONTACT: Tanecia Wilson , Associate Engineer - Environmental		**ACTIVITY DATE:** 07/09/2021
STAFF: C. Nazaret Sandoval	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY 2021 Scheduled Inspection		
RESOLVED COMPLAINTS:		

Source: DTE Electric Company, River Rouge Power Plant
SRN: B2810
Address: 1 Belanger Park Drive, River Rouge, Michigan 48218-2601
Subject: Scheduled Inspection
Inspector: Nazaret Sandoval, Air Quality Division (AQD), Detroit Office

1 - SAFETY EQUIPMENT/SAFETY TRAINING/SECURITY

Hardhat, safety glasses with side shields and steel-toed boots are required throughout the plant; hearing protection is required in some areas. One must sign in at the guardhouse and allow security to notify plant staff of your arrival prior to entering the plant grounds beyond the guardhouse. Visitors can park in the contractor/employee lot in the foreground of the guardhouse.

2 - FACILITY BACKGROUND AND PROCESS DESCRIPTION

DTE Electric Company River Rouge Power Plant (DTE River Rouge or DTE RR), formerly known as the Detroit Edison River Rouge Power Plant, was constructed in the 1950s to generate electricity. The original plant comprised three large steam boilers identified as Unit 1, Unit 2, and Unit 3 and its associated turbines, a smaller auxiliary steam boiler, coal and ash handling equipment, and four diesel turbine peakers. Unit 1 was a natural gas fired unit owned by DTE River Rouge Unit 1 LLC, a subsidiary of DTE Energy, and operated by DTE River Rouge. Units 2 and 3, owned and operated by DTE River Rouge, fired primarily western subbituminous coal with additional amounts of eastern bituminous coal, natural gas, coke oven gas, blast furnace gas, and dried paint solids.
Over the years, with the changes in air regulations and new emission standards, equipment aging and business trends, there have been modifications in the plant equipment and operations which included changes in the fuels used in the boilers, the addition of treatment processes for air pollution controls, the retirement of boilers, etc. More details of those changes will be presented later in this report.
One of the major additions to the plant was completed in mid-2015 with the installation of a modular Dry Sorbent Injection (DSI) and Activated Carbon Injection (ACI) system to comply with the Mercury Air Toxic Standards (MATS) for coal-fired electric utility steam generating units. The project included the installation of equipment to serve both boilers, Units 2 and 3. The DSI/ACI system was installed to treat HCl, PM and Hg in the flue-gas before it entered to the electrostatic precipitators (ESP) that controlled the particulate emissions from the boilers.

Most of the equipment above identified were not in operations on the date of the inspection (7/9/2021) because they had been shut down permanently. The only active operations were those associated with coal transfer and pulverized coal injection and the diesel turbine peakers. However, since the investigation period for this site inspection is from June 1, 2020 to May 31, 2021, and during that period one of the boilers was still operating, I will describe the operations that took place at DTE River Rouge before the last boiler at the plant (Unit 3) ceased its operations and officially retired on June 1, 2021. In addition, on 7/9/2021, the active AQD permit regulating the emission units at the facility did not reflect the retired emission units and its associated equipment. The permit modifications were still in the review stages from EPA and AQD authorities.

When possible, I have included within the narrative, the facility's updates, as well as the permit actions that took effect after the inspection of July 2021 and during the writing/final posting of this inspection report. A summary of the changes and the most current status of the equipment and operations is listed in the last paragraphs of Section 4 on this report.

APPENDIX 34-I

Additional Documentation of EGU Retirements

LBWL, Erickson Station

- Unit 1 (11/28/2022)

10-30-2023 Renewable Operating Permit Staff Report for LBWL Delta Energy Park; pp. 1-4 of 10

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division

State Registration Number	ROP Number
B4001	MI-ROP-B4001-2024

RENEWABLE OPERATING PERMIT
STAFF REPORT

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).

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Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division State Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B4001 MI-ROP-B4001-2024

OCTOBER 30, 2023 - STAFF REPORT

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 (EUFPENGINE), 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 as a marketable product or for disposal. A fugitive dust manage 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 (NOx), and volatile organic compounds (VOCs). Continuous emission monitoring systems (CEMS) are used to measure emissions of carbon monoxide (CO) and nitrogen oxides (NOx).

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.

APPENDIX 34-J

Additional Documentation of EGU Retirements

LBWL – Eckert Station

- Unit 1 (12/31/2020)
- Unit 3 (12/31/2020)
- Unit 4 (5/31/2021)
- Unit 5 (12/31/2020)
- Unit 6 (12/31/2020)

6-5-2023 Renewable Operating Permit Staff Report for LBWL – REO Town Plant; pp. 1-4 of 9

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division

State Registration Number	ROP Number
B2647	MI-ROP-B2647-2023a

RENEWABLE OPERATING PERMIT
STAFF REPORT

Lansing Board of Water and Light - REO Town Plant

State Registration Number (SRN): B2647

Located at

1201 South Washington Avenue, Lansing, Ingham County, Michigan 48910

Permit Number: MI-ROP-B2647-2023a

Staff Report Date: June 5, 2023

Amended Date: January 29, 2024

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).

(Rev. 3/06/23)

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Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State

Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B2647 MI-ROP-B2647-2023

JUNE 5, 2023 -STAFF REPORT

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 - REO Town Plant 1201 South Washington Avenue Lansing, Michigan 48910
Source Registration Number (SRN):	B2647
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:	202200094
Responsible Official:	Lori Myott, Manager, Environmental Services and Reliability Compliance Department 517-702-6639
AQD Contact:	Julie Brunner, P.E. Environmental Quality Specialist 517-275-0415
Date Application Received:	April 18, 2022
Date Application Was Administratively Complete:	April 18, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	June 5, 2023
Deadline for Public Comment:	July 5, 2023

Source Description

The stationary source consists of one utility power plant that generates electricity and steam. The Lansing Board of Water and Light (LBWL) - REO Town Plant is a combined-cycle, cogeneration facility consisting of two natural gas-fired turbines, two heat recovery steam generators (HRSG) with natural gas-fired duct burners, steam turbines, a natural gas-fired auxiliary boiler, two (2) natural gas-fired stand-by boilers, a natural gas-fired emergency engine,

and a four-cell mechanical draft cooling tower. REO Town Plant was co-located with coal-fired Eckert and Moores Park Steam Stations. Moores Park Steam Station was shut down as part of the project to build the REO Town Plant. Eckert Station was permanently shut down on December 31, 2020. One unit remained available only for emergency operations status through May 31, 2021, at which point the entire plant was permanently taken offline. The permit conditions for Eckert Station were removed in a minor modification to the ROP.

The REO Town Plant is located diagonally to the northeast of Eckert Station, and the two plants shared a steam distribution line to GM and downtown Lansing. The facility is in central Lansing and the surrounding area is a mix of residential, commercial, and industrial properties.

REO Town Plant is a major source subject to Prevention of Significant Deterioration regulations due to the potential to emit of greater than 100 tons per year (tpy) of carbon monoxide (CO) and nitrogen oxides (NOx). It was demonstrated in the renewal application that the facility is now a minor (area) source of hazardous air pollutants (HAPs) with the retirement of the coal-fired Eckert Station.

Changes to the facility since the last renewal include the installation of two (2) natural gas-fired stand-by boilers as allowed under Permit to Install (PTI) No. 36-20. PTI 156-22 was issued December 2, 2022 for the replacement of one natural gas-fired turbine (EUTURBINE2) with a like-kind turbine that is functionally equivalent. The requirements for PTI 156-22 are incorporated into this renewal.

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)	167.5
Lead (Pb)	0.02
Nitrogen Oxides (NO_x)	162.4
PM10*	13.8
Sulfur Dioxide (SO_2)	0.3
Volatile Organic Compounds (VOCs)	6.6

* 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 calculated by the source:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Hexane	4.2
Formaldehyde	3.0
Toluene	0.4
Total Hazardous Air Pollutants (HAPs)	8.5

**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.

APPENDIX 34-K

Additional Documentation of EGU Retirements

Consumers Energy – J.C. Weadock Facility

- Weadock 7 (4/15/2016)
- Weadock 8 (4/15/2016)

4-25-2022 Renewable Operating Permit Staff Report for Consumers Energy – Karn Facility; pp. 1-6 of 18

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State Registration Number ROP Number

RENEWABLE OPERATING PERMIT STAFF REPORT

B2840 MI-ROP-B2840-2022a

CONSUMERS ENERGY COMPANY
Consumers Energy - Karn Facility

State Registration Number (SRN): B2840

Located at

2680 North Weadock Highway, Essexville, Bay County, Michigan 48732

Permit Number: MI-ROP-B2840-2022a

Staff Report Date: April 25, 2022

Amended Date: November 26, 2024

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).

(Rev. 5/01/19)

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Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B2840 MI-ROP-B2840-2022

APRIL 25, 2022 - STAFF REPORT

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:	Consumers Energy Company Consumers Energy - Karn Facility 2742 North Weadock Highway Essexville, Michigan 48732
Source Registration Number (SRN):	B2840
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900073
Responsible Official:	Norman Kapala, VP of Generation Operations 616-738-3200 Sean Kelly, Plant Business Manager 989-891-3136 Cresencio Hernandez III, Site Production Manager 989-891-3407
AQD ROP Contact:	Kaitlyn DeVries, Senior Environmental Quality Analyst 616-558-0552
AQD Facility Contact	Benjamin Witkopp, Environmental Engineer 989-295-1612
Date Application Received:	April 16, 2019
Date Application Was Administratively Complete:	April 16, 2019

Is Application Shield in Effect?	Yes
Date Public Comment Begins:	April 25, 2022
Deadline for Public Comment:	May 25, 2022

Source Description

The Consumers Energy Company, Consumers Energy – Karn Facility (Consumers Energy) (B2840), located at 2742 and 2680 North Weadock Highway, Essexville, Michigan, is engaged in the generation and transmission of electricity for sale. The facility is located immediately to the east of the mouth of the Saginaw River, and Saginaw Bay/Lake Huron is immediately north. The surrounding area is predominantly agricultural/coastal. Two large marinas and some residences are located on the west side of the Saginaw River directly across from the facility. Additionally, a few residences are situated approximately one and a half miles southeast of the facility.

Section 1

The Karn 1 and 2 Plant houses Karn boiler #1 (EU-KARN1) and Karn boiler #2 (EU-KARN2). EU-KARN1 is a 2,500 million BTU per hour, dry bottom tangential coal fired boiler with fuel oil startup capabilities and supplemental co-firing for flame stabilization and mill outages. EU-KARN1 and EU-KARN2 are each equipped with the following control devices: a pulse jet fabric filter (PJFF) for particulate matter (PM) control, a selective catalytic reduction unit (SCR) for control of nitrogen oxides (NOx), a spray dry absorber (SDA) for acid gas control (SO2, and HCl), and sorbent injection for mercury control. EU-KARN2 is a 2,540 million BTU per hour, dry bottom wall coal fired boiler with fuel oil startup capabilities and supplemental co-firing for flame stabilization and mill outages. It is equipped with low NOx burners and the same control technology as EU-KARN1. Emission units associated with the SDAs include EU-LIMEPREP, EU-BPRECYCLE, EU-BPDISPOSAL, and EU-SORBENT. EU-KARN1 and EU-KARN2 are supported by DC and AC emergency diesel generators (EU-KARN12DCGEN and EU-KARN12ACGEN). Several other emergency generators are also used at various locations throughout the Karn Plant.

Additional emission sources at the Karn 1 and 2 Plant include coal handling activities and cold cleaners.

Section 2

The Karn 3 and 4 Plant houses Karn boiler #3 (EU-KARN3) and Karn boiler #4 (EU-KARN4). EU-KARN3 is a 7,290 million BTU per hour natural gas and fuel oil-fired boiler (i.e., dual fuel). EU-KARN4 is an 8,030 million BTU per hour natural gas and fuel-oil fired boiler. Both boilers are equipped with low NOx burners and utilize fuel blending for the control of sulfur dioxide. Also, at the Karn 3 and 4 Plant are auxiliary boilers A and B (EU-AUXBLRA and EU-AUXBLRB). They are both natural gas-fired each with a maximum rated capacity of 300 million BTU per hour. These boilers are also equipped with low NOx burners. EU-KARN3 and EUKARN4 are supplied by a fuel oil storage tank (EU-FOTANKA), which is equipped with an internal floating roof and polyurethane vapor seal. Two (2) 5.23 million BTU per hour, natural gas-fired tank farm boilers (EU-TANKFARMBLR1 and EU-TANKFARMBLR2) for heating fuel transmission lines are also components of the Karn 3 and 4 Plant. Additional emission sources at Karn 3 and 4 Plant include two (2) emergency diesel generators, a paint room, and cold cleaner.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2020.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	285.97

Lead (Pb)	0.005
Nitrogen Oxides (NO_x)	663.02
Particulate Matter (PM10*)	416.9
Sulfur Dioxide (SO_2)	629
Volatile Organic Compounds (VOCs)	2.67
Pollutant	Tons per Year
Ammonia	3.46

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

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2019 by Consumers Energy:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Acrolein	0.032
Arsenic	0.0025
Chromium	0.0090
Hydrochloric Acid (HCl)	0.92
Hydrogen Fluoride (HF)	1.07
Manganese	0.014
Mercury	0.0061
Nickel	0.037
Selenium	0.002
Total Hazardous Air Pollutants (HAPs)	2.09

**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 nonapplicability 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 Bay 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 sulfur dioxide, nitrogen oxides, and carbon monoxide exceeds 100 tons per year; and the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act (specifically hydrochloric acid and hydrogen fluoride), is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year. The potential to emit of greenhouse gases (GHG) is 100,000 tons per year or more calculated as carbon dioxide equivalents (CO2e) and 100 tons per year or more on a mass basis.

EU-KARN1, EU-KARN2, EU-LIMEPREP, EU-BPRECYCLE, EU-BPDISPOSAL, EU-KARN3, and

EU-KARN4 at the stationary source were subject to review under the Prevention of Significant Deterioration regulations of 40 CFR 52.21, because at the time of New Source Review permitting the potential to emit of sulfur dioxide, nitrogen oxides, and carbon monoxide were greater than 100 tons per year.

EU-KARN12DCGEN and EU-KARN12ACGEN 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, EU-PARTSCLEANER12, EU-GUARDHSEGEN1, EU-GUARDHSEGEN2, EU-FISHBARGEN, EU-FOTANKA, EU-KARN3GEN, EU-KARN4GEN, EU-TANKFARMBLR1, EU-TANKFARMBLR2, EU-PARTSCLEANER34 and EU-PAINTROOM34 were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR.

Permit to Install (PTI) No. 40-15 was approved on April 30, 2015 and incorporated the Conditions of the Federal Consent Decree (U.S. V CONSUMERS ENERGY COMPANY, CIVIL ACTION 14-13580, E.D. MICH., 2014). This was to meet Paragraph 235 of the Consent Decree that requires certain parts from the consent decree to be incorporated into a construction permit (PTI). The following must be included in the permit: a schedule for all unit-specific, plant-specific, and system-specific performance, operational, maintenance, and control technology requirements established by this Consent Decree including, but not limited to, any (a) 30-Day, 90-Day, and 365-Day Rolling Average Emission Rates, (b) System-Wide Annual NOx and SO_2 Tonnage Limitations, (c) the requirements pertaining to the Surrender of NOx and SO_2 Allowances, (d) PM Emission Rate and annual stack test requirements, and (e) PM CEMS monitoring requirements. There was no New Source Review (NSR) associated with the PTI application review.

PTI No. 40-15A was approved on August 17, 2021 and updated some of the Conditions of the Federal Consent Decree (U.S. V CONSUMERS ENERGY COMPANY, CIVIL ACTION 14-13580, E.D. MICH., 2014) that was incorporated into the ROP. The changes were due to the termination of the Federal Consent decree on September 2, 2020. The termination of the Consent Decree also coincided with the approval of the use of PM CEMS for demonstrating compliance with the filterable PM emission limits.

Additionally, the JC Weadock facility and the Natural Gas Fired Combustion Turbine are no longer in operation and have been permanently removed from the Stationary Source, therefore AQD removed Section 3 - JC Weadock and Section 4 - Natural Gas Fired Combustion Turbine from the ROP. Consumers
Energy also requested to remove emission units EU-ASHKARN1&2, EU-ASHSILO-1, and
FG-ASHMAP-1, since these emission units and flexible group were replaced with the new ash handling system covered under EU-BPRECYCLE and EU-DISPOSAL to accommodate adding air pollution control systems to the existing coal-fired boilers. EU-COALHAND was moved from Section 3 to Section 1 of the ROP. EU-PARTSCLEANERCH has been dismantled and the emission unit has been removed from the ROP.

EU-FOTANKB, EU-SUBKTANKE, and EU-SUBKTANKF were removed from the ROP during this renewal.

EUFHPUMP-1 at the stationary source is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII and to the National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subpart ZZZZ. This emission unit was added to the ROP during this renewal and is a USEPA Certified diesel-fired compressor-assisted pump used on site for water management.

A minor modification was submitted on November 5, 2021, to incorporate two (2) new portable Tier IV EPA Certified diesel-fired engines which are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60 Subparts A and IIII and to the National Emissions Standards

for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subpart ZZZZ. These two (2) engines were not subject to Rule 201 permitting since they are less than 10 MMBTU and are exempt from Rule 201 permitting pursuant to R. 336 1285(2)(g). These engines are identified as EU-WDKMPM(5765)-1 and EU-WDKPMP(6284)-1 and are housed in FG-NONEMERGENCYCIENG-1.

EU-KARN1, EU-KARN2, EU-KARN3, and EU-KARN4 at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Coal- and Oil-Fired Electric Utility Steam Generating Units promulgated in 40 CFR Part 63, Subparts A and UUUUU. The source has not elected and will not elect to pursue Low Emitting Electric Generating Unit for any of these emission units.

APPENDIX 34-L

Additional Documentation of EGU Retirements

Consumers Energy – D.E. Karn Facility

- Karn 1 (6/1/2023)
- Karn 2 (6/1/2023)

11-26-2024 Renewable Operating Permit Staff Report for Consumers Energy – Karn Facility; pp. 17-18 of 18

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State

Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B2840 MI-ROP-B2840-2022a

NOVEMBER 26, 2024 - STAFF REPORT FOR RULE 216(2) MINOR MODIFICATION

Purpose

On April 25, 2022, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-B2840-2022 to Consumers Energy Company, Consumers Energy - Karn Facility pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(2).

General Information

Responsible Official:	Sean P. Kelly, Senior Manager of Plant Operations 989-891-3136
AQD Contact:	Caryn Owens, Senior Environmental Engineer 231-878-6688
Application Number:	202400146
Date Application for Minor Modification was Submitted:	August 30, 2024

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to Rule 216(2).

Description of Changes to the ROP

Minor Modification Number 202400146 was to remove emissions units and flexible groups from existing Section 1 of the Karn ROP: EU-KARN1-1, EU-KARN2-1, EU-SORBENT-1, EU-LIMEPREP-1, EUBPRECYCLE-1, EU-BPDISPOSAL-1, EU-COALHAND-1, EU-KARN12DCGEN-1, EU-KARN12ACGEN-1, EU-PARTSCLEANERS, FG-KARN12-1, FG-MATS-1, and FG-EMERGENCYCYCIGEN-1.

The emission units and flexible groups that were left in Section 1 of were as follows: EUGUARDHSEGEN1, EU-FISHBARGEN, EUGUARDHSEGEN2, EU-FHPUMP, EU-WDKPMP(5765), and EU-WDKPMP(6284), FG-EMERGENCYSIGEN, and FG-NON-EMERGENCYCIGEN. The emission units, flexible groups, and applicable requirements that were in Section 2 were combined with emission units and flexible groups from Section 1 that were not removed nor retired and or physically disabled. Therefore, the ROP is no longer a sectioned ROP.

Also, with this ROP modification, various minor administrative changes were made such as typos, numbering issues, and references were corrected as follows: In table FG-TANKFARMBLRS-2 updated numbering errors in Section III. Corrected the material limit in EU-GUARDHSEGEN2 since the emergency engine only burns liquified petroleum gas (LPG/Propane). Also, updated FG-KARN34 in SC VII. 7 to include the approved alternative electronic submittal format. All references to sections in the nomenclature of emission units and flexible groups throughout the ROP were removed since the permit will no longer be a sectioned ROP. Additionally, Karn 1 and 2 Acid Rain Permit and CSAPR Conditions have been removed.

AQD did not make the following changes based on the request in the Company's mark-up at this time because they are not changes that can be made during a Minor Modification and will need to be made during the next ROP Renewal:

- AQD did not add exempt emission units EUK34HEAT1 and EUK34HEAT2, and FG-34HEAT1&2.

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Minor Modification to the ROP.

Action Taken by EGLE

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-B2840-2022, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification 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 requirements, and resolution of any objections by any affected states or the USEPA.

APPENDIX 34-M

Additional Documentation of EGU Retirements

MARQUETTE BOARD OF LIGHT & POWER – Shiras

- Boiler 3 (4/29/2019)

2-13-2019 Michigan AQD Inspection Report for Marquette Board of Light & Power; pg. 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B183347819

FACILITY: MARQUETTE BOARD OF LIGHT & POWER		**SRN / ID:** B1833
LOCATION: 400 E HAMPTON, MARQUETTE		**DISTRICT:** Upper Peninsula
CITY: MARQUETTE		**COUNTY:** MARQUETTE
CONTACT: THOMAS J SKEWIS , ENVIRONMENTAL COMPLIANCE (3/2018)		**ACTIVITY DATE:** 02/13/2019
STAFF: Sydney Bruestle	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled onsite inspection to verify compliance with MI-ROP-B1833-2013a and all other applicable state and federal air quality regulations		
RESOLVED COMPLAINTS:		

On February 13, 2019 I (Sydney Bruestle) performed an onsite inspection of Marquette Board of Light and Power Shiras Steam Plant located at 400 E Hampton St Marquette, Michigan. While onsite I met with Tom Skewis, Environmental Technician.

Facility Description:

The Shiras Steam Plant is located in the City of Marquette at the Lower Harbor. The plant provided electricity to the City of Marquette and surrounding communities until June 8th 2018, when it was shut down. The City and surrounding areas now get power from the Marquette Energy Center engine plant (P0668). The Shiras plant has three coal fired boilers and associated coal, ash, and lime handling and storage equipment. Currently the facility is not storing or receiving coal, only lime. Boiler #1 is a Riley spreader stoker coal fired boiler built in 1956. It is rated at 150,000 pounds of steam per hour and has a heat input capacity of 198 million BTU per hour. It serves a generator with a nameplate capacity of 12.5 megawatts. Boiler #2 is a Riley-Union spreader stoker coal fired boiler built in 1971. It is rated at 200,000 pounds of steam per hour and has a heat input capacity of 264 million BTU per hour. It serves a generator with a nameplate capacity of 21.158 megawatts. Boilers #1 and #2 share a common stack. Boilers #1 and #2 were upgraded in 1979 with the addition of individual baghouse dust collectors under Air Use Permit #345-78. Boiler #3 is a Combustion Engineering pulverized coal fired boiler built in 1981 under Air Use Permit #65-80. It is rated at 415,000 pounds of steam per hour and has a heat input capacity of 517 million BTU per hour. It serves a generator with a nameplate capacity of 44 megawatts. Boiler #3 is controlled by a lime slurry scrubber for flue gas desulfurization followed by a baghouse dust collector. Boiler #3 was the only boiler operated in 2018. Boiler #1 and #2 are currently inoperable. Boiler #2 was last operated October 27, 2016. Boiler #3 has been shut down indefinitely as of June 8, 2018.

Despite the shut down, the facility is choosing to renew MI-ROP-B1833-2013a. The new ROP is in working draft and should be issued in 2019.Records for Boiler #3 were reviewed during my site visit. The facility continues to send in semi annual and annual compliance certifications. Records of operation for Boiler #1, #2, and #3 (for 2017 and 2018) are attached to the hard file of this report.

At the time of my inspection Marquette Board of Light and power appeared to be in compliance with MI-ROP-B1833-2013a and all other applicable state and federal air quality regulations.

NAME SJB DATE 02/19/18 SUPERVISOR EDL

APPENDIX 34-N

Additional Documentation of EGU Retirements

MARQUETTE BOARD OF LIGHT & POWER – Shiras

- Boiler 3 (4/29/2019)

7-8-2019 Renewable Operating Permit Staff Report for Marquette Board of Light & Power Marquette Energy Center (MEC); pp. 1-4 of 7

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State Registration Number ROP Number

RENEWABLE OPERATING PERMIT STAFF REPORT

P0668 MI-ROP-P0668-2019

Marquette Board of Light and Power

Marquette Energy Center (MEC)

State Registration Number (SRN): P0668

Located at

2200 Wright Street, Marquette, Marquette County, Michigan 49855

Permit Number: MI-ROP-P0668-2019

Staff Report Date: July 8, 2019

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).

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AUGUST 13, 2019 - STAFF REPORT ADDENDUM 7

Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State

Registration Number ROP Number

RENEWABLE OPERATING PERMIT

P0668 MI-ROP-P0668-2019

JULY 8, 2019 - STAFF REPORT

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:	Marquette Board of Light and Power Marquette Energy Center (MEC) 2200 Wright Street Marquette, Michigan 49855
Source Registration Number (SRN):	P0668
North American Industry Classification System (NAICS) Code:	221112
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Initial Issuance
Application Number:	201800091
Responsible Official:	Thomas Carpenter, Executive Director 906-458-5765
AQD Contact:	Sydney Bruestle, Environmental Quality Analyst 906-236-3995
Date Application Received:	July 18, 2018
Date Application Was Administratively Complete:	July 25, 2018
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	July 8, 2019
Deadline for Public Comment:	August 7, 2019

Source Description

Marquette Board of Light and Power (MBLP), Marquette Energy Center (MEC) operates a new power plant located at 2200 Wright Street in Marquette, Michigan. The power plant finished installation in 2017 and includes three Wärtsilä 18V50DF reciprocating internal combustion engines (power plant engines) equipped with selective catalytic

reduction (SCR) and oxidation catalyst emissions control systems, a black start emergency diesel generator (EDG), and fuel oil and reagent storage capacity. The power plant was located at a site that already contained a small liquefied petroleum gas (LPG)-fired engine and miscellaneous natural gas-fired heaters (such as space heaters). These engines were installed to satisfy the need for additional electricity generation capacity because the Marquette Board of Light and Power shut down the Shiras Steam Plant June 2017.

The three Wärtsilä 18V50DF engines are dual-fired engines. They can operate on natural gas with a diesel pilot fuel or 100% diesel fuel. The engines are not equipped with spark plugs, so to operate on natural gas, a small amount of diesel is required to provide the ignition from compression.

The emergency diesel generator is designed to fire ultra-low sulfur diesel fuel. The auxiliary power generated provides necessary service loads to equipment required for startup of the Wärtsilä engines, including fuel supply system, lube oil pumps, radiators, and reagent pumps for SCR system. The black start EDG is designed to provide up to 400 kW power during emergency situations. The EDG is designed to meet applicable new source performance standards (NSPS) emissions requirements. The engine is used only in case of an emergency and for periodic testing.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year 2018.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	2
Lead (Pb)	0
Nitrogen Oxides (NO_x)	15
Particulate Matter (PM)	11.6
Sulfur Dioxide (SO_2)	0.75
Volatile Organic Compounds (VOCs)	48

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2017 by Marquette Board of Light and Power:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Formaldehyde	0.5
Dibenzo(a,h) anthracene	0.3
Acrolein	0.1
N-Hexane	0.1
Total Hazardous Air Pollutants (HAPs)	1.3

**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

APPENDIX 34-O

Additional Documentation of EGU Retirements

Michigan Hub Plant

- Unit 1 (9/30/2017)

11-1-2016 Michigan AQD Inspection Report for MI SO Central Power Agency; pg. 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B661137445

FACILITY: MI SO CENTRAL POWER AGENCY		**SRN / ID:** B6611
LOCATION: 720 HERRING RD., LITCHFIELD		**DISTRICT:** Jackson
CITY: LITCHFIELD		**COUNTY:** HILLSDALE
CONTACT: Matt Burk ,		**ACTIVITY DATE:** 11/01/2016
STAFF: Brian Carley	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled inspection		
RESOLVED COMPLAINTS:		

Facility contact: Matt Burk, Director of Environmental Compliance
Phone: 517-542-2346 ext. 370
Email: burkm@mscpa.net

I arrived at the facility and met with Matt and two gentlemen who were potentially looking to purchase the facility. We first discussed what they were considering to do with the plant. They had proposed various projects that they were considering if they do purchase the facility. I then explained the permit requirements and encouraged them to schedule a permit scoping meeting before they submit an application. I also went over potential state and federal regulations that they would be subject to depending on the project(s) that decide to start with. I also discussed the annual and semi-annual compliance reporting, annual emissions reporting, and the fees associated with the emissions.

After we were done meeting with the two gentlemen, Matt and I went back to his office to discuss the inspection. Matt informed me that they had disconnected all the gas and water to the plant and everything was disconnected. He said that there was no power in plant at this time and no activity being done inside it. We then went out to see some the activities that were done after the plant had stopped operating. As we walked around the facility I noticed that the power lines that went from the plant to main power lines had been removed. Where the coal pile had been, they had dug it out and were considering options on what to do with that area. The emergency generator had been removed and placed into storage. The parts cleaner had been drained within the past two weeks and was no longer in use.

We then went back to his office to discuss some other possible scenarios that may possibly happen with this facility. Based on my inspection, the compliance and excess emission reports submitted, and the annual MAERS report submitted, I determined that the facility is in compliance. I thanked Matt for his time and left.

NAME Brian Carley DATE 11/2/16 SUPERVISOR

APPENDIX 34-P

Additional Documentation of EGU Retirements

Michigan Hub Plant

- Unit 1 (9/30/2017)

11-1-2016 Michigan AQD Full Compliance Evaluation Summary Report for MI SO Central Power Agency; pg. 1 of 3

DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY DIVISION

FCE Summary Report

Facility :	MI SO CENTRAL POWER AGENCY	**SRN :**	B6611
Location :	720 HERRING RD.	**District :**	Jackson
		County :	HILLSDALE
City :	LITCHFIELD **State:** MI **Zip Code :** 49252	**Compliance Status :**	Compliance
Source Class :	MAJOR	**Staff :**	Brian Carley
FCE Begin Date :	11/1/2015	**FCE Completion Date :**	11/1/2016
Comments :	The plant is currently shut down.		

List of Partial Compliance Evaluations :

Activity Date	Activity Type	Compliance Status	Comments
11/01/2016	Scheduled Inspection	Compliance	Scheduled inspection
09/26/2016	ROP Semi 1 Cert	Compliance	They reported one deviation for previously reported excess emissions that were submitted in the quarterly excess emission reports. The report is acceptable as submitted.
09/26/2016	CAM Excursions/Exceedances	Compliance	They reported no excursions or exceedances for the reporting period. The report is acceptable as submitted.
09/26/2016	CAM monitor downtime	Compliance	They reported all CAM monitor downtime had been previously reported in the quarterly excess emission reports. The report is acceptable as submitted.
08/01/2016	Excess Emissions (CEM)	Compliance	Opacity occurrences, Monitor Downtime, Linearity reports, Opacity Audit Report, CAM Sheets. They reported no exceedances of the opacity, SO2, NOx, PM and PM10 emission limits. The report is acceptable as submitted.

APPENDIX 34-Q

Additional Documentation of EGU Retirements

DTE – Pontiac North LLC

- EUBHB9 (1/10/2017)

12-1-2016 Michigan AQD Inspection Report for DTE Pontiac North, LLC; pg. 1 of 2

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N778637782

FACILITY: DTE PONTIAC NORTH, LLC		**SRN / ID:** N7786
LOCATION: 824 SAINT CLAIR STREET, PONTIAC		**DISTRICT:** Southeast Michigan
CITY: PONTIAC		**COUNTY:** OAKLAND
CONTACT: Donald Januszek , Env. Health & Safety Manager		**ACTIVITY DATE:** 12/01/2016
STAFF: Francis Lim	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT:		
RESOLVED COMPLAINTS:		

DTE Pontiac North, LLC, SRN: B7786, located at 824 St. Clair Street, Pontiac Michigan is scheduled for inspection for fiscal year 2017. This facility previously operated three natural gas fired boilers and a coal-fired fluidized bed boiler that operates a turbine electric generator. This facility is not considered an electric utility because the electrical generator does not have the capacity to generate electricity for sale of more than 25 MW.

On December 1, 2016, I talked with Rob Sanch, Environmental Supervisor regarding the status of the facility. Rob verified that the power plant, including all boilers have been permanently shutdown for several years. Rob also explained that the lease (from GM) for the facility will expire on January 10, 2017. At this time, DTE will not renew the lease. He does not know whether GM wants the Renewable Operating Permit (ROP-MI-N7786-2013) transferred to them. The AQD will be informed about this decision.

Facility Overview

Previously, this facility was a part of and operated by the GM Pontiac North Campus. DTE Pontiac North, LLC. leased the facility from GM; this included three natural gas fired converted stoker boilers and one coal-fired circulating fluidized bed boiler with limestone injection for control of sulfur dioxide emissions and fabric filter for particulate emission control.

The three natural gas-fired boilers: Boiler Nos.6, 7, and 8, were last operated in 2010 and while they remain on-site, they have been permanently shut down. These boilers produced 150 psi saturated steam for GM.

The coal-fired boiler, Boiler No. 9, last operated in 2009 and while it remains on-site has been permanently shut down since September 2012. This boiler produced 1450 psi superheated steam to operate the electrical turbine generator. Only Boiler 9 is connected to a turbine.

From previous staff reports, it appears that the boilers are nitrogen blanketed to prevent corrosion.

In 2012, DTE submitted a Permit-to-Install application (158-12) to convert Boiler No. 9 from coal-fired to woody biomass-fired. On July 30, 2013, after considering discussions regarding the use of railroad ties as fuel and reviewing the draft permit language (which included Commercial/Industrial Solid Waste Incinerators Regulations and a fugitive dust plan), DTE withdrew their permit application.

ROP No. MI-ROP-N7786-2013

The ROP was issued on December 9, 2013. It was reissued on June 16, 2016 to replace Boiler 9 CAIR ROP conditions and CAIR Permits with the Transport Rule (CSAPR) conditions

APPENDIX 34-R

Additional Documentation of EGU Retirements

Graphic Packaging International, Inc. - Kalamazoo

- Unit BLR08 (10/07/2024)

11-2-2023 Michigan AQD Inspection Report for Graphic Packaging International LLC; pp. 1-3 of 12

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B167870162

FACILITY: GRAPHIC PACKAGING INTERNATIONAL LLC		**SRN / ID:** B1678
LOCATION: 1500 N. PITCHER ST., KALAMAZOO		**DISTRICT:** Kalamazoo
CITY: KALAMAZOO		**COUNTY:** KALAMAZOO
CONTACT: Steven Smock , Environmental Manager		**ACTIVITY DATE:** 11/02/2023
STAFF: Michael Cox	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Scheduled unannounced Inspection		
RESOLVED COMPLAINTS:		

At approximately 1:30 P.M. on November 2, 2023, Air Quality Division (AQD) staff Michael Cox (MTC) and Monica Brothers (MB) conducted an unannounced on-site inspection of Graphic Packaging International (GPI) located at 1500 North Pitcher Street, Kalamazoo, Michigan. The purpose of this inspection was to determine compliance with the facility's renewable operating permit (ROP) MI-ROP-B1678-2015 and Permit to Install (PTI) No. 133-19A. Accompanying AQD staff on the inspection was Mr. Steve Smock, Environmental Manager, who is the primary contact for on-site activities at the facility and who also provided records during and following the inspection. Also accompanying AQD staff was Mr. Greg France, Mill Manager. Prior to arriving on site MTC observed the perimeter of the facility for any visible emissions and odors. Odors were present near the facility along Pitcher Street that were attributed to the paperboard processes, however, the odors were not significant enough to be considered a Rule 901 violation. Visible steam plumes were noted prior to entry coming from several stacks associated with the paper machines and boilers.

Facility Description

GPI is a paper mill that makes a 3-ply and 2-ply thickness paperboard for things like cereal boxes and tissue boxes. The facility also prints on, cuts, folds, and glues this paperboard to create final products. The facility is located in a populated area in downtown Kalamazoo and sits adjacent to residential areas and other industry, as well as the City of Kalamazoo's Water Reclamation Plant. The facility operates 24-hours a day and seven day a week. GPI began operations at this location in 2000, after purchasing the existing papermill facility at this location.

Regulatory Analysis

GPI is a major source for nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), and volatile organic compounds (VOCs). GPI is currently operating under MI-ROP-B1678-2015 and PTI #133-19A. There are two sections to this ROP, the Mill Section, and the Carton Plant Section. The facility received PTI No. 133-19A to expand production, which included two new boilers (Boilers 10 and 11) and a new paper machine (K2). The K2 paper machine started up in February 2022, while Boilers 10 and 11 had a start-up date of November 24, 2020. Per the requirements of PTI No

133-19A, the facility no longer burns fuel oil in their boilers and uses only natural gas.

In 2019, AQD escalated enforcement against GPI because of a number of unresolved odor violations. Administrative Consent Order (ACO) 2022-20 became effective February 1, 2023, which resolved these odor violations. A second enforcement action was initiated in October 2022 for violations discovered during an on-site inspection, during stack testing, and by voluntary disclosure from the company. A PTI application (No. App-2022-0207) was received on August 18, 2022. This permitting action, along with a second ACO have resolved some of these violations. PTI No. 133-19B was issued on December 13, 2023, and ACO 2023-18 became effective on December 14, 2023. The facility also has a Nuisance Minimization Plan for Odors (NMPO) that was approved by EGLE on August 18, 2022.
GPI is considered an existing major PSD nested source due to the Potential to Emit (PTE) of Boilers 8-11 is over 100 tons per year and the boilers are a listed PSD source within another source. GPI is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. GPI is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63, Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. GPI is also subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM), and 40 CFR Part 96 for NOx trading.

Compliance Evaluation

Source-Wide Conditions:

GPI – Mill Section and Carton Plant Section has a combined hazardous air pollutant (HAP) limit of 9.9 tons per year (tpy) for individual HAPs, and 24.9 tpy for combined HAPs on a 12-consecutive month rolling basis. This includes the emissions from the boilers and clean-up solvents. Records were requested and reviewed for the time period of August 2022 through September 2023. The highest 12-consecutive month Individual HAP emission occurred during the 12-consecutive month time period ending in August 2022 when 5.016 tons of Vinyl Acetate was emitted. The highest 12-consecutive month combined HAP emissions occurred during the 12-consecutive month time period ending in August 2022, when 11.014 tons of combined HAP was emitted.

Section 1: Mill

-

EUBOILER#7:

EUBOILER#7 is a natural gas boiler with a maximum heat input of 127 MMBTU/hr. This boiler was decommissioned in April of 2022 and is no longer on site and operational.

EUBOILER#8:

EUBOILER#8 now fires only natural gas and has a maximum heat input of 240 MMBTU/hr. PTI #133-19A requires that they no longer use fuel oil for this emission unit. EUBOILER#8 has a continuous emissions monitoring system (CEMS) that records NOx during the ozone season. EUBOILER#8 has a NOx emission limit of 40.4 tpy on a 12-consecutive month rolling basis as well as a NOx emission limit of154 lb/MMCF on an hourly basis. Compliance with the hourly NOx emission rate is determined through stack testing which is to be conducted every 60 months as of the issuance of PTI No.133-19A. As of this inspection, stack testing has not yet been conducted on EUBOILER#8 to verify compliance with the hourly NOx emission rate. Stack testing is due by November 24, 2025. EUBOILER#8 has a material limit of 525 MMCF/yr of natural gas usage on a 12-consecutive month rolling basis. Records of NOx emissions and natural gas usage were requested and reviewed for the time period of August 2022 through September 2023. GPI is keeping track of NOx emissions as required. The highest 12-consecutive month NOx emission occurred during the 12-consecutive month time period ending in January 2023 when 23.3 tons of NOx was emitted. The highest 12-consecutive month natural gas usage occurred during the 12-consecutive month period ending in January 2023 when 265.7 MMCG of natural gas was used. During the facility walk through, Boiler 8 was not in operation and has not operated since March 13, 2023. GPI is required to have a malfunction abatement plan (MAP) for this unit, which has been implemented and maintained.

One stack is listed in association with EUBOILER#8. The stack was observed venting unobstructed vertically. The stacks appeared to be consistent with the dimensions listed in MI-ROP-B1678-2015 and PTI No.133-19A.

EUBOILER#9:

EUBOILER#9 now fires only natural gas and has a maximum heat input of 227 MMBTU/hr equipped with low NOx burners and flue gas recirculation. PTI No.133-19A requires that they no longer use fuel oil for this emission unit. EUBOILER#9 has a CEMS unit that monitors NOx emissions. EUBOILER#9 has NOx emission limits of 0.06 lbs/MMBTU on a 24-hour average basis, 13.6 pph on an hourly basis, and 59.6 tpy on a 12- consecutive month rolling basis. EUBOILER#9 has a total gaseous non-methane organic compound (NMOC) measured as methane of 0.025 lbs/MMBTU of heat input on an hourly basis and 5.7pph NMOC limit on an hourly basis. Records of NOx emissions were requested and reviewed for the time period of August 2022 through September 2023. GPI is keeping track of NOx emissions as required. Two exceedances were noted during the records review for the 0.06 lb/MMBTU limit that occurred on August 20, 2022, and August 21, 2022 with the 24-hour average values at 0.126 and 0.074 lb/MMBtu respectively, however, these exceedances were already addressed during the previous inspection. There were also 37 exceedances of the 13.6 pph limit from August 19, 2022 to August 21, 2022 which were also addressed during the previous inspection. The highest 12-consecutive month NOx emission occurred during the 12-consecutive month time period ending in September 2022 when 21.39 tons of NOx was emitted. Compliance with the hourly NMOC emission

APPENDIX 34-S

Additional Documentation of EGU Retirements

J B Sims

- Unit 3 (6/1/2020)

10-29-2019 Michigan AQD Inspection Report for J.B. Sims Generating Station; pg. 1 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B197651350

FACILITY: J.B. Sims Generating Station		**SRN / ID:** B1976
LOCATION: 1231 N. Third St., GRAND HAVEN		**DISTRICT:** Grand Rapids
CITY: GRAND HAVEN		**COUNTY:** OTTAWA
CONTACT: Paul Cederquist , Environmental Compliance Specialist		**ACTIVITY DATE:** 10/29/2019
STAFF: Kaitlyn DeVries	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: The purpose of the inspection was to determine compliance with MI-ROP-B1976-2018.		
RESOLVED COMPLAINTS:		

On Tuesday October 29, 2019 Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff Kaitlyn DeVries (KD) and Scott Evans (SE) conducted an unannounced, scheduled inspection of Grand Haven Board of Light and Power – J.B. Sims Generating Station (J.B. Sims) located at 1231 N. Third St., Grand Haven Michigan. The purpose of the inspection was to determine compliance with MI-ROP-B1976-2018. In addition to the scheduled inspection, J.B Sims was conducting a stack test.

Facility Description

J.B. Sims is an electric generating station that utilizes pulverized Appalachian coal as the primary fuel, and historically had three (3) units. Presently, only one (1) primary generating unit, Unit 3, is in use. The other two (2) units were retired in 1989. Unit 3 was installed in 1983 and has a maximum heat capacity of 785 MMBTU/Hr producing up to 80 megawatts (gross) per hour. Unit 3 utilizes low-NOx burners, a four-field electrostatic precipitator (ESP) and a wet lime/limestone scrubber. A Selective Non-Catalytic Reduction (SNCR) System is also installed at the facility but is not in use. Further discussion of the control devices as well as Unit 3 will follow in the Compliance Evaluation portion of this report. Per conversations with Mr. Cederquist, Unit 3 is set to be permanently retired mid-2020.

Regulatory Analysis

The facility is a major source for Sulfur Dioxide, Nitrogen Oxides. and Hazardous Air Pollutants, and is subject to the Title V program. The facility is also subject to the Prevention of Significant Deterioration (PSD) regulations of Title 40 of the Federal Regulations, Part 52.21 and Michigan's Part 18 rules.

In addition to the above-mentioned Stated rules, there are other federal regulations that are applicable for various emission units at the source. EU-AUX-BOILER is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR Part 63 Subpart DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Source Facilities. EU-EGE is subject to the provisions of the New Source Performance Standards (NSPS) of 40 CFR Part 60 Subpart IIII for Compression Ignition Internal Combustion Engines and to the provisions of NESHAP 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines. The provisions of Subpart ZZZZ are met via compliance with Subpart IIII. EU-MTL_HNDLNG is subject to the provisions of NSPS 40 CFR Part 60 Subpart Y for Coal Preparation and Processing Plants. However, the opacity limits of this standard have been subsumed by the limits from Rule 331. Further detail on this can be found in the Compliance Evaluation portion of this report. EU-UNIT-3-BLR is subject to several Federal Regulations including: NSPS 40 CFR Part 60 Subpart Da for Electric Utility Generating Units which were constructed after September 18, 1978, NESHAP 40 CFR Part 63 Subpart UUUUU for Coal and Oil Fired Electric Utility Generating Units, also known as the Mercury and Air Toxics Standard (MATS), the Acid Rain Program of 40 CFR Part 72, the Cross State Air Pollution Rules (CSAPR) NOx Ozone Season Group 2 Trading Program and SO2 Group 1 Trading Program of 40 CFR Part 97 Subpart EEEEE and CCCCC, respectively. Unit 3 is also subject to the Compliance Assurance Monitoring requirements of 40 CFR Part 64. These regulations will be further evaluated in the compliance evaluation portion of this report.

No stack dimensions were measured during the inspection, but all dimensions appeared correct.

Compliance Evaluation

EU-MTL_HNDLNG

This emission unit covers the coal, lime, and ash handling processes. The Particulate Matter (PM) emissions are controlled by enclosures, baghouses, and dust suppression measures.

APPENDIX 34-T

Additional Documentation of EGU Retirements

J B Sims

- Unit 3 (6/1/2020)

5-1-2024 Memo Discussing Former J.B. Sims Generating Station, (https://www.renewharborisland.org/application/files/5017/1474/1039/Former_J.B._Sims_Generating_Station_-_SSL_Memo_Q2_2024.pdf); pg. 1 of 3

Memo

Date:	Wednesday, May 01, 2024
Project:	Former J.B. Sims Generating Station Harbor Island
To:	Derek Gajdos, City of Grand Haven
From:	Lara Zawaideh, P.E., HDR Michigan, Inc.
Subject:	Former J.B. Sims Generating Station Determination of Statistically Significant Levels over Groundwater Protection Standards per 40 CFR §257.95(g) and Michigan Part 115 Rule R 299.4441.

The U.S. Environmental Protection Agency's (EPA's) final Coal Combustion Residuals (CCR) Rule and Michigan Part 115 establish a comprehensive set of requirements for the management and disposal of CCR (or coal ash) in landfills and surface impoundments by electric utilities. The objective of this memorandum is to document the identification of additional constituents of interest (COI) in groundwater from assessment monitoring that were present at statistically significant levels (SSLs) over the updated groundwater protection standards (GPS) for both the Federal and State compliance monitoring programs.

Facility Description

The former J.B. Sims Generating Station (facility or Site) was a coal-fired power generation facility operated by Grand Haven Board of Light & Power (GHBLP) that ceased operations in February 2020. The Site is located at 1231 North 3rd Street, on Harbor Island, in Grand Haven, Michigan. The CCR generated at the former generating station was stored in two CCR units that are subject to the CCR Rule and Part 115: (1) the inactive Units 1/2 Impoundment and (2) the Unit 3A/B Impoundments. The Units 1/2 Impoundment was a depression in the ground where sluiced ash was disposed which ceased receiving CCR material in 2012. The Unit 3A/B Impoundments were clay-lined, above-ground units that ceased receiving CCR material in July 2020. Excavation of CCR material from Unit 3A/B Impoundments for physical closure was conducted in December 2020.

Assessment monitoring is performed quarterly at both units in February, April, July, and October each year. Following the initial assessment monitoring event with the updated monitoring network in October 2023, SSLs were identified and documented in the *Former J.B. Sims Generating Station Determination of Statistically Significant Levels over Groundwater Protection Standards per §257.95(g) and Michigan Rule R 299.4441* (HDR, 2024b).

Assessment monitoring was performed in February 2024 and, following sampling and analysis, downgradient well concentrations were statistically evaluated to determine if constituents were detected at SSLs above the GPS. To determine if an exceedance of a GPS value was statistically significant, the 95% lower confidence limit (95LCL) was calculated for each of the downgradient wells for each CCR unit and compared to the GPS.

APPENDIX 34-U

Additional Documentation of EGU Retirements

J B Sims

- Unit 3 (6/1/2020)

2-19-2021 Holland Sentinel Article, "Last group of J.B. Sims plant buildings demolished," (https://www.hollandsentinel.com/story/news/local/2021/02/19/j-b-sims-generating-stations-final-buildings-demolished/4506027001/)

holland sentinel.com

LOCAL

Last group of J.B. Sims plant buildings demolished

Dylan Goetz Grand Haven Tribune

Published 10:42 a.m. ET Feb. 19, 2021 | **Updated 1:10 p.m. ET Feb. 19, 2021**

GRAND HAVEN — The remaining two J.B. Sims plant buildings on Harbor Island were imploded early Friday, marking the end of its 37-year life cycle.

A controlled implosion brought down the Unit 3 boiler house and smokestack moments apart around 8 a.m. reported the Grand Haven Tribune. The first implosion to raze the scrubber building took place two weeks earlier on Feb. 5.

The longtime landmark's implosion time circled social media early Friday. Many interested residents braved the cold to see the demolition in person from Lynn Sherwood Waterfront Stadium.

"It was nice to see the smokestack as a landmark, so I am going to miss that," Spring Lake resident Scott Homolka said.

"I didn't know what I was expecting, maybe one big boom. To see it in person, you just don't get the full effect unless you are here."

A boiler house typically is the building designed to turn liquid into vapor in the process of energy generation.

More: Sims Generating Station in Grand Haven ceases operations

More: Final demolitions begin at J.B. Sims site

More: Ottawa County awarded $300K for brownfield projects

The Unit 3 boiler used to provide heat for the snowmelt system in Grand Haven, but since it was demolished, new gas-powered hot water heaters are used in a much smaller building on the island.

The smokestack was used to exhaust combustion gases into the air when the Sims plant was still in operation. It was also the longtime home of a peregrine falcon nest, which worked as a rehabilitation site for the endangered species.

“Assuming they’re both viable and healthy birds, in the future they would look for some alternate site to build a nest,” Michigan Department of Natural Resources wildlife biologist Nik Kalejs said for a previous Tribune story. “That’s not always such an easy thing to predict.”

The Sims plant was officially closed in February 2020. Shortly after, demolition began on the smaller buildings on Harbor Island.

Board of Light & Power Operations Manager Erik Booth said the demolition process is ahead of schedule. Demolition will likely conclude by the end of June, Booth said.

BLP’s current plan calls for an office building, 12.5 megawatt gas-powered generator and operations facilities on the former Sims site following the remediation process.

The city has been buying its power from the grid ever since Sims plant operations stopped last year.

APPENDIX 34-V

Additional Documentation of EGU Retirements

Consumers Energy – J.R. Whiting

- Unit 1 (4/15/2016)
- Unit 2 (4/15/2016)
- Unit 3 (4/15/2016)

7-11-2016 Michigan AQD Inspection Report for J.R. Whiting Co; pg. 1 of 1

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

8284635496

FACILITY: J.R. WHITING CO		SRN 1 ID: 82846
LOCATION: 4525 E. ERIE RD, ERIE		DISTRICT: Jackson
CITY: ERIE		COUNTY: MONROE
CONTACT:		ACTIVITY DATE: 07111/2016
STAFF: Brian Carley	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

Facility Contact: Frank Rand
Phone: 734-848-2610
Email: frank.randir@cmsenergy.com

I arrived at the plant and met with Frank Rand and Ted Webster of Consumers Energy for a scheduled inspection of the JR Whiting Plant. This facility officially ceased all electric generation operations on April 16, 2016 and was in the process of being decommissioned. Most of the facility was without power and there are only a few areas that have lights in the main plant. The only other place with power is the building that houses the plant personnel for the decommissioning process. The coal bunkers have been emptied and the coal pile has been removed. What little coal remains has been wetted down to form a crust layer to prevent fugitive dust from being generated. The wind did pick up some while I was being shown the former coal yard and I did not see any fugitive dust. All of the dust control devices for the coal and ash handling systems have been emptied, cleaned, and the bags have been removed. All of the other equipment listed in their ROP (boilers, generators, parts cleaners, etc.) has either been made inoperable or has been removed.

The only major activity at the facility was the process of closing ash ponds 1, 2, and 6. Contractors were onsite working on these ponds and they had water trucks going in the areas where the work was taking place. They were working on ash pond 6 at the time of inspection and I did not see any fugitive dust being generated. They are still keeping logs of the dust control measures that they are doing along with weather information for each day.

Based on my inspections and the reports received (quarterly excess emission, MAERS, ROP certifications, etc.) I have determined that they are in compliance. Once they submit their request to void their ROP, I will recommend that we approve that request.

NAME Brian Carley DATE 7/1.3/ i e

SUPERVISOR

APPENDIX 34-W

Additional Documentation of EGU Retirements

James De Young

- Unit 5 (6/1/2017)

1-9-2020 Michigan AQD Inspection Report for Holland Board of Public Works; pg. 1 of 2

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N600052142

FACILITY: HOLLAND BOARD OF PUBLIC WORKS		**SRN / ID:** N6000
LOCATION: 85 E SIXTH ST, HOLLAND		**DISTRICT:** Grand Rapids
CITY: HOLLAND		**COUNTY:** OTTAWA
CONTACT: Trista Gregorski , Environmental Regulatory Specialist		**ACTIVITY DATE:** 01/09/2020
STAFF: Kaitlyn DeVries	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: The purpose of this inspection was to determine compliance with permit to install (PTI) Numbers 133-74 and 133-74A.		
RESOLVED COMPLAINTS:		

On Thursday January 9, 2020 Department of Environment, Great Lakes, and Energy (EGLE) Air Quality Division (AQD) staff Kaitlyn DeVries (KD) and Scott Evans (SE) conducted an unannounced, scheduled inspection of Holland Board of Public Works' Sixth Street facility, located at 85 E. Sixth Street, Holland Michigan. The purpose of this inspection was to determine compliance with permit to install (PTI) Numbers 133-74 and 133-74A.

KD and SE had met with Ms. Trista Gregorski, Environmental Regulatory Specialist, and the Holland Board of Public Works Holland Energy Park facility prior to going over to this facility to conduct an inspection.

Facility Description

This location Holland Board of Public Works (HBPW) is composed of one (1) 20 MW oil-fired combustion turbine. The facility had historically been used for a black start for the now decommissioned James DeYoung Coal fired power plant. The facility itself is comprised of the turbine, and two (2) 95,000-gallon fuel storage tanks. Only one of the tanks is still in use, the other one is labeled empty, and is no longer in use.

The unit was not in operation at the time of the inspection, and according to records, and Ms. Gregorski, the unit is only operating for readiness testing purposes. Ms. Gregorski also indicated that HBPW is considering decommissioning this unit entirely, however, no formal decision has been made.

Regulatory Analysis

The facility is currently operating under two (2) PTI's; PTI No's 133-74 and 133-74A. The source was formerly registered as a Rule 208a source, but upon recession of that rule it obtained opt-out limits and an opt-out PTI. The turbine is also subject to the 40 CFR Part 63 Subpart ZZZZ for Reciprocating Internal Combustion Engines for area sources.

Compliance Evaluation

The special conditions located in PTI No. 133-74 are only no visible emissions, operating at noise levels that are satisfactory, and no changes to the National Ambient Air Quality Standards (NAAQS) as a result of the operation of the unit. Ottawa county is considered in attainment for all NAAQS, therefore, there is no indication of any deterioration of the air quality as a result of the operation of this unit.

The issuance of PTI No 133-74A, in 2014 was due to the changes in the rules rescinding Rule 208a and the facility then obtaining an Opt-out PTI for Nitrogen Oxides and Green House Gases (GHG's). It should be noted that the issuance of PTI No. 133-74A stated that PTI No. 133-74 remained active.

Emissions from the facility are limited to 16,000 tons per year (tpy) for CO_2e and 50 tpy for NOx, both based upon a 12-month rolling time period. Based upon the records, the 12-month rolling CO2e emissions as of December 2019 were 51.74 tons and the 12-monht rolling NOx emissions were 0.257 tons. The reported emissions are consistent with what has been reported to MAERS.

Number 2 Fuel usage at the facility is limited to 1,217,518 gallons per year, based upon a 12-month rolling time period. Records indicate a 12-month rolling usage of 6,251 gallons. The tanks that store the fuel are exempt from Rule 201 permitting under Rule 284(2)(d).

While the turbine is subject to 40 CFR Part 63 Subpart ZZZZ, AQD does not currently have delegation for this area source MACT.

APPENDIX 34-X

Additional Documentation of EGU Retirements

James De Young

- Unit 5 (6/1/2017)

8-11-2023 Holland Board of Public Works Article and Video, "James De Young Power Plant Demolition," (https://hollandbpw.com/en/blog/list-all/33-electric/310-jdy-demolition-update)

James De Young Power Plant Demolition

Demolition of Holland BPW's retired James De Young (JDY) power plant is underway. The demolition is part of a multi-year decommissioning process that started in 2017 when the plant first shut down.

01:48

August 11, 2023 - On the morning of Thursday, August 10, the James De Young power plant stood in its final moments, before a controlled implosion brought down what remained of the aging building.

The demolition is a multi-year process that started when the plant first shut down. JDY supplied Holland with electricity for 78 years, opening in 1939 and closing in 2017. The decommissioned coal plant was replaced with Holland Energy Park to support the growth of our community and to reduce carbon emissions. Following regulations and proper procedures to decommission and abate, and demolish JDY, health and safety are top priorities every step of the way.

"The James De Young Power Plant was a foundational asset that provided affordable and reliable electricity for generations, helping Holland to develop into the place we know today. As the community grew, eventually our electricity needs changed. The coal plant's replacement, Holland Energy Park, has increased our generation capacity, lowered rates, and cut our carbon emissions in half," explained Dave Koster, Holland board of Public Works, General Manager.

Holland BPW considered multiple options for handling the retired power plant. Repurposing the building was one idea, however no developers took interest in the project. "The City of Holland received three proposals for developing the land and none of those included keeping the JDY building. So, demolishing the building and selling the parcel is the best option for

upholding safety, sustainability, and value for our rate payers as relates to JDY," said Koster.

"We are grateful to our team and partners who, through careful planning and responsible remediation, carried out an expert demolition. Clearing the space where James De Young once stood opens new opportunities for the waterfront in Holland."

—

Physical changes to the building and external structures were visible beginning in May, as brick and underlying steel were being removed.

JDY supplied Holland with electricity for 78 years, opening in 1939 and closing in 2017. The aging coal plant was replaced with Holland Energy Park to support the growth of our community and to improve the efficiency and environmental performance of the portfolio of power supply resources, including helping to reduce carbon emissions by 50%. Following regulations and proper procedures to decommission, abate, and demolish JDY, Holland BPW ensures that health and safety are top priorities every step of the way.

While the decommissioning and demolition of the plant is catalytic to envisioning new waterfront opportunities, that work was not tied to the recent citizen vote enabling the sale of the property. During the Waterfront Holland community visioning effort, concepts were created that considered multiple options for the power plant site, including potentially repurposing the structure. When developers came forward through the subsequent requests for qualifications and then proposals, none proposed plans that would've made use of the building. "With each day that passes,

the structure ages, increasing risks. So, demolishing the building is the prudent course of action for upholding safety, sustainability, and our commitment to the community to prepare the land for future use," explained Dave Koster, General Manager of Holland BPW.

Since the plant closed in 2017, Holland BPW conducted environmental assessments regulated by the Michigan Department of Environment Great Lakes and Energy and performed safe remediation of the site from 20172020. Holland BPW also had to make changes to the electric distribution network. In 2017 a new substation on Pine Ave. replaced the distribution functionality that JDY formerly provided.

Holland BPW executed a contract with ERM for turnkey services associated with hazardous material remediation and demolition of the structure. ERM is using Bierlein as the primary subcontractor performing demolition services. Hazardous materials such as asbestos and lead-based paints were documented so that a thorough abatement could be conducted as part of the plant demolition. That abatement involved removal and safe disposal of the hazardous materials.

The remediation of those materials began in February 2023 and was completed by late April. Demolition started in May and is now visible, with the windows and brick being removed from the outside of the building. The demolition is expected to be complete the fall. Over the past several years, the Holland BPW set aside cash reserves to cover the costs of the decommissioning efforts. The demolition portion was budgeted at $6.5 Million and is anticipated to come in at around $5.7 Million.

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APPENDIX 34-Y

Additional Documentation of EGU Retirements

Consumers Energy – Thetford

- Unit 2 (6/1/2019)
- Unit 3 (4/1/2018)
- Unit 4 (6/1/2019)

6-21-2019 Michigan AQD Inspection Report for Consumers Energy Thetford Combustion Turbine Plant; pp. 1-6 of 6

B2918 manila Genesee

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B291849227

FACILITY: Consumers Energy Thetford Combustion Turbine Plant		**SRN / ID:** B2918
LOCATION: 10500 N Genesee Rd, MOUNT MORRIS		**DISTRICT:** Lansing
CITY: MOUNT MORRIS		**COUNTY:** GENESEE
CONTACT: Joy Hwang , Environmental Engineer		**ACTIVITY DATE:** 06/21/2019
STAFF: Daniel McGeen	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: Inspection conducted on the day the fuel line into the Thetford plant was disconnected, done as a Partial Compliance Evaluation (PCE) activity, part of a Full Compliance Evaluation (FCE). Another PCE activity, review of recordkeeping, was also conducted.		
RESOLVED COMPLAINTS:		

On 6/21/2019, the Michigan Department of Environment, Great lakes, and Energy (EGLE), Air Quality Division (AQD), conducted an inspection of the Consumers Energy Thetford Combustion Turbine site, to observe the disconnection of the fuel line to the plant. AQD had been invited by Consumers Energy to observe this project, so that the ROP for Thetford could be voided. This inspection was done as a Partial Compliance Evaluation (PCE) activity, part of a Full Compliance Evaluation (FCE).

Facility environmental contact:

Joy Hwang, Environmental Engineer; 517-768-3761; joy.hwang@cmsenergy.com

Emission unit ID	Emission unit description	Installation date	Operating status
EUCOMBTURB1	Unit 1 combustion turbine, heat input rating of 555 million BTU/hr Can be fueled by natural gas or fuel oil	7/1/67	Permanently shut down; fuel line air-gapped today, and electrical lines removed.
EUCOMBTURB2	Unit 2 combustion turbine, heat input rating of 555 million BTU/hr Can be fueled by natural gas or fuel oil	7/1/67	Permanently shut down; fuel line air gapped today, and electrical lines removed.
EUCOMBTURB3	Unit 3 combustion turbine, heat input rating of 555 million BTU/hr Can be fueled by natural gas or fuel oil	7/1/67	Shut down permanently on 4/1/2018; fuel line air gapped today, and electrical lines removed.
EUCOMBTURB4	Unit 4 combustion turbine, heat input rating of 555 million BTU/hr Can be fueled by natural gas or fuel oil	7/1/67	Permanently shut down; fuel line air gapped today, and electrical lines removed.
EUCOMBTURB5	Unit 5 combustion turbine, heat input rating of 265 million BTU/hr Fueled by natural gas Unit 5 startup engine, heat input rating of 2.12 million BTU/hr	7/1/67	Permanently shut down; startup engine physically disconnected from fuel line
EUCOMBTURB6	Unit 6 combustion turbine, heat input rating of 265 million BTU/hr Fueled by natural gas Unit 6 startup engine, heat input rating of 2.12 million BTU/hr	7/1/67	Permanently shut down; startup engine physically disconnected from fuel line
EUCOMBTURB7	Unit 7 combustion turbine, heat input rating of 265 million BTU/hr Fueled by natural gas Unit 7 startup engine Heat input rating of 2.12 million	7/1/67	Permanently shut down, startup engine physically disconnected from fuel line

	BTU/hr		
EUCOMBTURB8	Unit 8 combustion turbine Heat input rating of 265 million BTU/hr Fueled by natural gas Unit 8 startup engine Heat input rating of 2.12 million BTU/hr	7/1/67	Permanently shut down; startup engine physically disconnected from fuel line
EUCOMBTURB9	Unit 9 combustion turbine Heat input rating of 265 million BTU/hr Fueled by natural gas Unit 9 startup engine Heat input rating of 2.12 million BTU per hour	7/1/67	Permanently shut down; startup engine physically disconnected from fuel line

Introduction:

On 6/21/2019, the Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted the following PCE activities, which are part of a FCE, at the Consumers Energy Thetford Combustion Turbine Plant:

1.) a scheduled inspection, documenting the decommissioning of the plant, with the purpose of voiding the ROP, and

2.) review of records and operational logs.

Facility description:

This facility was a peaking station, which had nine generators and associated turbines, and was decommissioned the day of the inspection. The nine generators and associated turbines were historically placed into two groups, as follows:

Group No. 1 had four 36 MW generators, each operated by a single turbine. Each turbine was operated by the exhaust from two jet engines. The jet engines in Group No. 1 were started using blasts of compressed air. Once the units started rotating, continuing operation was done by compressing cool air into the unit, and then rapidly heating it to expand it, and forcing it through a venturi-style opening. This caused a high speed exhaust stream to rotate the turbine. The air was heated in each jet engine by eight canister style burners, which were fueled by sweetened natural gas. The generators could run up to 3600 rpm.

Group No. 2 had five 20 MW generators, each associated with a single turbine. All the Group 2 units were previously shut down, as will be explained later in this report. These units were started using low speed diesel engines using a clutch mechanism. Canister style burners were then lit, and exhaust from the burners would turn the turbines.

The facility's ROP allows units 1-4 to be operated burning fuel oil, as well as natural gas, although in actual practice Consumers ran 1-4 only on natural gas, in recent years. There was once a large oil storage tank at the site, but that was removed some years ago.

The current ROP was approved on 7/31/2015, and expires on 7/31/2020. On 6/18/2019, Consumers Energy sent AQD a ROP void request letter, asking that MI-ROP-B2918-2015 be voided. Today's inspection was to verify that the plant was being rendered inoperational.

The turbine engines at this facility were not subject to 40 CFR Part 60 Subpart GG, *Standards of Performance for Stationary Gas Turbines.* This is because they were constructed before 10/3/1977, and Subpart GG applies to certain stationary gas turbines which were constructed, modified, or reconstructed after 10/3/1997. It should be noted that the periodic repair or replacement of gas turbine components, including the gas generator, for overhaul or repair, using like kind units, did not subject

the facility to the requirements of Subpart GG unless the periodic replacement met the definition of "modification" as defined in 40 CFR 60.14 or "reconstruction" as defined in 40 CFR 60.15.

When all 9 turbines were operational, in years past, the turbines were considered subject to the MACT, 40 CFR Part 63, Subpart YYYY, *National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines*. This is because the facility was a major source of Hazardous Air Pollutant (HAP) emissions, as the Potential to Emit (PTE) for formaldehyde was 11.2 tons per year (actual emissions were much smaller). Because the units were considered existing they were not subject to the emission and operating limitations, and testing was not required. With the permanent shutdown of the Group 2 turbines and the remaining units no longer burning fuel oil the PTE for formaldehyde was reduced significantly. With the disconnecting or air-gapping of the natural gas line into the plant today, and the recent disconnection of electrical lines to the plant, the facility has no PTE.

When all 9 turbines were capable of operating, Consumers staff believe that this facility was subject to 40 CFR Part 63 Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)*, also known as the RICE MACT (Maximum Achievable Control Technology). The 5 diesel startup engines were considered an affected source, because they had a site rating of less than or equal to 500 brake horsepower (HP) each, were located at a major source of HAP emissions, and were built before 6/12/2006. This classified them as existing stationary RICE, under Section 63.6590(a)(1)(ii). Under Section 63.6590(c), compression ignition stationary RICE with a site rating of less than or equal to 500 HP must meet the requirements of ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII, which is the NSPS for CI engines. However, review of Subpart IIII shows that they were not subject. Essentially, although the facility was subject to ZZZZ, there were no requirements that applied. Now that the diesel startup engines are not capable of operating, the facility is no longer subject to the RICE MACT.

Fee status:

This facility was classified as a category I fee-subject source, because it was a major source for formaldehyde. Now that it is no longer capable of operating, it is no longer fee-subject. The facility was required to report to the Michigan Air Emission Reporting System (MAERS), on an annual basis.

Location:

This facility was located in a rural, agricultural area. The nearest residences were about 1,800 feet to the east, 2,500 feet to the north, 2,400 feet to the west, and 1,900 feet to the south, as measured from the buildings of the combustion turbine plant itself, in ArcGIS.

Recent history:

Ms. Joy Hwang, Environmental Engineer for the Environmental Services Department of Consumers Energy, had contacted AQD on 6/17/2019, to invite AQD staff to observe the disconnection of the Thetford plant from its fuel source, this week. It was explained that the combustion turbines were officially retired on 6/1/2019, and Consumers Energy would like to void the ROP. She was aware that a ROP void request letter would need to be sent to the AQD Lansing District Office. The date proposed was 6/19/2019 for the physical disconnection, but that was subsequently moved to 6/20.

I went to the site yesterday, 6/20, to observe the planned disconnection, or air-gapping, of the natural gas line running into the Thetford plant, which is documented in a separate activity report. However, wet conditions from rain, and previous days of rain, were posing safety concerns. The sides of earthen trenches were reported to be caving in, and the trench with the natural gas line was observed to be filling with water. It was therefore decided to delay the air-gapping until today, which was predicted to be dry. It was suggested that I arrive at 1:00 PM.

Note: On 6/20/2019, AQD inspector Brian Carley had forwarded an email from the EPA Clean Air Markets Division to me, please see attached. It acknowledged that EPA received from Consumers Energy the Retired Unit Exemption Forms which they submitted. B. Carley indicated that the AQD Lansing District Office (LDO) needs to take no additional action on that.

The facility most recently had been inspected as part of a FCE on 7/12/2018. No instances of noncompliance were found. Turbine 3 was permanently retired on 4/1/2018, Mr. George Eurich, Air Quality Lead for Consumers Energy, advised me during a 1/23/2019 phone call.

Arrival:

I arrived at 1:15 PM. Weather conditions were mostly sunny, moderately humid, and 75 degrees F, with winds 0-5 miles per hour out of the northwest. I met with Ms. Joy Hwang, Environmental Engineer for Consumers Energy, Environmental Services Department. Also present was Mr. Kurt Koseck of Consumers Energy.

PCE activity No. 1; Inspection:

I was shown by Ms. Hwang that the natural gas fuel line had been "air gapped" or disconnected, prior to my arrival. Please see attached photos.

Afterwards, Consumers Energy staff showed Ms. Hwang and I radiographs, or X-ray images, of the welds where the line had been capped. It is my understanding that the images showed the integrity of the weld. Some areas had been touched up, we were shown, where previous radiographs had shown an imperfection(s) in the weld.

Because of the disconnection of the fuel line and the electrical lines to the facility, the turbines at the site would be unable to operate. Considerable effort would be required if Consumers Energy ever chose to run this facility again. Currently, the facility has no known potential to emit (PTE) any air contaminants. With a PTE of zero lbs of any pollutants, the facility no longer qualifies as a major source. Therefore, the ROP can be voided.

On 6/28/2019, AQD received a 6/18 letter from Consumers Energy, requesting that the Thetford Combustine Turbine Plant's ROP be voided. AQD will process and approve the void request.

PCE activity No. 2; Review of records and operational logs:

The monitoring and recordkeeping requirements of the ROP require that visible emission readings be done for each emission unit of the flexible group for Turbines 2 through 4 which were burning fuel oil, during peak operating conditions. Because Units 2-4 ran only on natural gas during their final years of operation, and because they never reached peak operating conditions, this condition was no longer applicable.

Regarding 40 CFR Part 97, Subparts AAAAA, BBBBB, and CCCCC, it is my understanding that since the turbines here rarely ran, and therefore used minute amounts of fuel, they did not have any reportable quantities of emissions under those subparts. Subpart AAAAA is the Transport Rule NOx Annual trading Program, Subpart BBBBB is the Transport Rule NOx Ozone Trading Program, and Subpart CCCCC is the Transport Rule SO2 Group 1 Trading Program.

Units 2, 3 and 4 were the last units currently operational. Their dates of operation in 2018 were as follows:

- Unit 2 ran on 5/31, 6/1, 10/10, and 10/23/2018
- Unit 3 did not run at all in 2018.
- Unit 4 ran on 5/22, 5/31, and 10/18/2018.

2018 natural gas use, from MAERS report:

- Unit 2: 7,333.3 MCF
- Unit 3: 0.0 MCF
- Unit 4: 15,190.5 MCF
- Total: 22.524 MMCF, or 22,524 MCF

Image 2(004) : Air-gapped line, and trench.

NAME _____ DATE 9/17/2019 SUPERVISOR _____

APPENDIX 34-Z

Additional Documentation of EGU Retirements

Wyandotte

- Unit 8 (6/30/2016)

11-7-2022 Renewable Operating Permit Staff Report for City of Wyandotte Municipal Power Plant; pp. 1-4 of 11

Registration Number ROP Number

RENEWABLE OPERATING PERMIT STAFF REPORT

B2132 MI-ROP-B2132-2023

City of Wyandotte Municipal Power Plant

State Registration Number (SRN): B2132

Located at

2555 Van Alstyne, Wyandotte, Wayne County, Michigan 48192

Permit Number: MI-ROP-B2132-2023

Staff Report Date: November 7, 2022

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).

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Michigan Department of Environment, Great Lakes, and Energy Air Quality Division State

Registration Number ROP Number

RENEWABLE OPERATING PERMIT

B2132 MI-ROP-B2132-2023

NOVEMBER 7, 2022 - STAFF REPORT

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:	City of Wyandotte Municipal Power Plant Department of Municipal Services 3200 Biddle Avenue, Suite 200 Wyandotte, Michigan 48192
Source Registration Number (SRN):	B2132
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:	202100152
Responsible Official:	Paul LaManes, General Manager 734-324-7194
AQD Contact – District Inspector:	Stephen Weis, Senior Environmental Engineer 313-720-5831
AQD Contact – ROP Writer:	Sebastian Kallumkal, Environmental Quality Specialist 586-201-0175
Date Application Received:	August 31, 2021
Date Application Was Administratively Complete:	August 31, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	November 7, 2022
Deadline for Public Comment:	December 7, 2022

Source Description

The City of Wyandotte's Department of Municipal Services (WMS) is a community owned and operated entity that provides electricity, water, telephone, internet, and cable television services to residents of Wyandotte. The electricity is generated by the City of Wyandotte Municipal Power Plant (power plant), which is the subject of this Renewable Operating Permit (ROP). The power plant is located on the western shore of the Detroit River, just north of the downtown area of Wyandotte. The facility is bounded by the Detroit River to the east; to the north is Henry Ford Wyandotte Hospital, a small marina and some residences along the marina; to the south is Bishop Park; to the west and southwest is an area that is primarily a mix of residential types of properties (houses, condominiums, a senior apartment complex) as well as one of the City of Wyandotte's libraries.

The process equipment and devices that generate emissions that are released to the ambient air at a facility are referred to as Emission Units for the purposes of the ROP. Among the Emission Units included in the ROP for the power plant are two boilers, identified as EUUNIT5BLR and EUUNIT7BLR. EUUNIT5BLR is a 22.5 MW natural gas-fired boiler; EUUNIT7BLR is a 32.5 MW wall-fired natural gasfired boiler. EUUNIT7BLR has low NOx burners and separated over fire air control.

In addition, WMS operates three 1,825 kW compression ignition diesel-fired engine generators. These generators are equipped with diesel oxidation catalyst for the reduction of hazardous air pollutant emissions. The generators are located approximately a ½ mile north of the power plant, north of the Henry Ford Wyandotte Hospital on James DeSana Drive. These engines were manufactured in 2006 and were installed in November 2007. The parcel of property on which they are located borders the southern portion of the BASF complex property.

In the previous ROP, the power plant was also permitted for the burning of coal in EUUNIT7BLR and a now retired boiler identified as EUUNIT8BLR. EUUNIT8BLR was a 25 MW circulating fluidized bed boiler capable of firing coal, untreated virgin wood chip waste and tire-derived fuel. This boiler was permanently retired on June 30, 2016. EUUNIT7BLR was modified via Permit to Install (PTI) No. 2-16 on March 23, 2016 to remove coal conditions and restrict the boiler to the use of natural gas only.

Much of the process equipment involved with either handling solid fuels or disposing of the resultant residue (such as ash), and with handling the particulate/fly ash produced during the combustion of the solid fuel, has been physically dismantled and removed from the facility. This equipment, which used to be included in the FGMATVENTS Flexible Group in the ROP, was located at the north end of the facility, on the north side of the boiler buildings where Units 7 and 8 are located. This equipment included the fly ash silo and the fly ash truck loadout process for Unit 8, and the Unit 8 baghouse.

In May 2020, the facility also installed two new natural gas fired boilers, EUPACKBOILER-N and EUPACKBOILER-S, each with 48 MMBTU/hr heat input capacity.

In 2021, along with the ROP renewal application, the facility submitted an updated potential to emit (PTE) calculation. The updated PTE identifies the power plant as a Major Source for NOx, CO, and Green House Gases and as a Minor Source of SO2, PM, VOCs, and HAPs.

On October 1, 2020, the USEPA issued a final rule, referred to as "Major MACT to Area" or "MM2A" under Section 112(a) of the Clean Air Act, ending "once-in-always-in" policy governing emissions of hazardous air pollutants (HAPs). This rule allows for major source of HAPs to be reclassified as an area source in some circumstances. Prior to the issuance of this rule, facilities classified as a major source of HAPs were permanently subject to HAP major source standards, even if the source reduced its emissions, under EPA's 1995 "once-in-always-in" policy. The final rule represents the EPA's withdrawal of the once-inalways-in policy and codifies EPA's 2018 guidance memorandum withdrawing the "Once-in-Always-in" policy.