

State Registration Number  
B2132

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
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).

## TABLE OF CONTENTS

<b>NOVEMBER 7, 2022 - STAFF REPORT</b>	<b>3</b>
<b>JANUARY 23, 2023 - STAFF REPORT ADDENDUM</b>	<b>9</b>
<b>MARCH 13, 2023 - STAFF REPORT ADDENDUM</b>	<b>11</b>

State Registration Number

B2132

**RENEWABLE OPERATING PERMIT**

**NOVEMBER 7, 2022 - STAFF REPORT**

ROP Number

MI-ROP-B2132-2023

**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 gas-fired 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-in-always-in policy and codifies EPA's 2018 guidance memorandum withdrawing the "Once-in-Always-in" policy.

The facility submitted a permit application (PTI No. 160-18) to request the removal all major source MACT requirements in its permit because they are no longer a major source of HAPs.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2021**.

**TOTAL STATIONARY SOURCE EMISSIONS**

Pollutant	Tons per Year
Carbon Monoxide (CO)	19.48
Lead (Pb)	0.00
Nitrogen Oxides (NOx)	18.29
Particulate Matter (PM10)*	2.31
Sulfur Dioxide (SO <sub>2</sub> )	0.20
Volatile Organic Compounds (VOCs)	3.73

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

WMS is a true minor source of Hazardous Air Pollutant (HAP) emissions as listed pursuant to Section 112(b) of the federal Clean Air Act.

The following table lists Hazardous Air Pollutant emissions from Potential to Emit calculations submitted by applicant along with the renewal application in 2021.

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Benzene	0.02
Formaldehyde	0.26
Hexane	6.2
Toluene	0.017
<b>Total Hazardous Air Pollutants (HAPs)</b>	<b>6.6</b>

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

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

**Regulatory Analysis**

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

The stationary source is in Wayne County, which is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the 8-hour ozone standard. The stationary source is located in a portion of Wayne County which is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the SO<sub>2</sub> standard.

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

EUUNIT7BLR was not subject to the Prevention of Significant Deterioration (PSD) regulations of The Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality or 40 CFR 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations. On April 1, 1997, the permittee installed low NOx burners (6 units) and adjusted the burners on EUUNIT7BLR.

EUUNIT5BLR was installed prior to August 15, 1967. As a result, this equipment was considered "grandfathered" and not subject to New Source Review (NSR) permitting requirements. In 1997, a modification was made to remove coal burning capabilities and restrict EUUNIT5BLR to burn natural gas only. EUUNIT5BLR was initially permitted to and capable of burning coal and natural gas. This modification date is listed in the ROP Emission Unit Summary Table. Due to the modification not causing an increase in emissions, NSR was not triggered.

FGWMSSENGINES (EUWMSSENGINE1, EUWMSSENGINE2, EUWMSSENGINE3) are located on a property leased from BASF Corporation along James DeSana Drive in Wyandotte. The property is controlled by WMS under a 20-year lease agreement with BASF. The units are connected to the WMS electric distribution grid and not to the BASF electric system. So, they are considered part of the WMS stationary source. WMS is an existing major source for PSD. NOx emissions from the three engines (FGWMSSENGINES) were limited to less than 40 tons per year, so they were not subject to PSD review. Catalytic oxidation for control of CO emissions is installed on each engine.

EUUNIT7BLR at the stationary source is subject to the New Source Performance Standards for Fossil Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, promulgated in 40 CFR Part 60, Subparts A and D.

FGWMSSENGINES (EUWMSSENGINE1, EUWMSSENGINE2, EUWMSSENGINE3) at the source is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and IIII.

FGPACKBOILERS (EUPACKBOILER-N, EUPACKBOILER-S) at the stationary source is subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units promulgated in 40 CFR Part 60, Subparts A and Dc.

FGWMSSENGINES (EUWMSSENGINE1, EUWMSSENGINE2, EUWMSSENGINE3) and FGEMERGEN-WATERPMP (EUDSLGEN and EUSLPMP) at the stationary source are subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ.

EUUNIT5BLR and EUUNIT7BLR at the stationary source are not subject to the National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources promulgated in 40 CFR Part 63, Subparts A and JJJJJJ because they meet the definition of a gas-fired boiler. *Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. The boilers are not permitted to burn any liquid fuels. The AQD is not delegated the regulatory authority for this area source regulation.

EUUNIT5BLR and EUUNIT7BLR at the stationary source are subject to the federal Acid Rain program promulgated in 40 CFR Part 72.

FGWMSSENGINES is exempt from acid rain regulations (40 CFR 72) because the sulfur content of the fuel will not exceed 0.05% on an annual average and the capacity at the facility will be less than 25 MW. The Acid Rain Program New Unit Exemption forms will be submitted to the AQD.

EUUNIT5BLR and EUUNIT7BLR at the stationary source are subject to the Cross State Air Pollution Rule NOx Annual Trading Program pursuant to 40 CFR Part 97, Subpart AAAAA.

EUUNIT5BLR and EUUNIT7BLR at the stationary source are subject to the Cross State Air Pollution Rule NOx Ozone Group 3 Trading Program pursuant to 40 CFR Part 97, Subpart GGGGG.

EUUNIT5BLR and EUUNIT7BLR at the stationary source are subject to the Cross State Air Pollution Rule SO<sub>2</sub> Group 1 Trading Program pursuant to 40 CFR Part 97, Subpart CCCCC.

In 2016, WMS and USEPA entered into an Amended Consent Decree effective August 29, 2016. WMS previously requested incorporation of permit conditions for PTI No. 2-16 into the ROP on March 31, 2016. The amended application was received with a request to incorporate PTI No. 2-16 and Amended Consent Decree No. 11-cv-12181 information on November 17, 2016. Amended Consent Decree (No. 11-cv-12181) between WMS and USEPA was terminated on March 14, 2019.

The facility is subject to the requirements of Consent Order SIP No. 34-1993, effective May 19, 1993, which includes a fugitive dust plan, that was entered as an Order as part of the State of Michigan's State Implementation Plan (SIP) for PM10 attainment. This order was revised (September 9, 1994) and reissued on October 12, 1994. The facility submitted revisions to the Order in an effort to update the requirements of the Order and its associated fugitive dust plan to reflect the current operations and dust control measures at the facility.

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

FGWMSSENGINES (EUWMSSENGINE1, EUWMSSENGINE2, EUWMSSENGINE3) do not have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64, because the units do not have potential pre-control emissions over the major source thresholds. Each engine is individually controlled using catalytic oxidation system. The pre-control carbon monoxide (CO) emissions from each engine in FGWMSSENGINES are 69.46 tons per year. The emissions were calculated using emissions factors from AP 42 Table 3.4-1 Emissions Factors from Large Stationary Diesel Engines (Fifth Edition, October 1996).

The emission limitation(s) or standard(s) for Nitrogen Oxides (NOx) from EUUNIT7BLR at the stationary source is exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(vi), because 0.20 lb/MMBTU based on a 3-hour average meets the CAM exemption for a continuous compliance determination method.

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

**Source-Wide Permit to Install (PTI)**

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

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-B2132-2017 are identified in Appendix 6 of the ROP.

PTI Number			
253-98D	90-05	90-05A	2-16

**Streamlined/Subsumed Requirements**

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

**Non-applicable Requirements**

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

**Processes in Application Not Identified in Draft ROP**

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

<b>PTI Exempt Emission Unit ID</b>	<b>Description of PTI Exempt Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
EUWELDER	Portable 20 Hp welder generator	Rule 212(4)(d)	Rule 285(2)(g)

**Draft ROP Terms/Conditions Not Agreed to by Applicant**

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

**Compliance Status**

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

**Action taken by EGLE, AQD**

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD’s proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Christopher Ethridge, Assistant Division Director. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.



State Registration Number  
B2132

**RENEWABLE OPERATING PERMIT**  
**JANUARY 23, 2023 - STAFF REPORT ADDENDUM**

ROP Number  
MI-ROP-B2132-2023

**Purpose**

A Staff Report dated November 7, 2022, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	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

**Summary of Pertinent Comments**

The following comment was received from the public during the public comment period:

**Public Comment:**

On November 23, 2022, a commenter sent an email requesting a public hearing on this draft ROP to discuss the use of renewable energy at the facility.

*“Please have a Public Hearing on this renewal permit as this facility is emitting noxious gases which could cause concerns with health and our environment. Especially since there is a local hospital nearby this power plant, it is important to hold a Public Hearing. Instead of renewing permits, perhaps there is an alternative with renewable energies that do not emit harmful gases into our precious environment.”*

**AQD RESPONSE:**

Following the receipt of the comment, AQD Staff discussed with the commenter about the permits that were issued to the facility allowing it to use fuels that it is currently using and that the AQD cannot require the facility to use alternate fuels through the ROP program. During the conversation, AQD staff requested the commenter to send any specific comment about the requirements in the Draft ROP by December 7, 2022, the end date for the public comment period. The AQD did not receive any additional comment from the commenter.

On January 12, 2023, AQD staff sent an email to the commenter detailing prior discussions and requesting to submit additional comments by January 20, 2023. No comments received from the commenter by this date.

The AQD believes that it has provided sufficient time for the commenter to make comments and a public hearing is not appropriate because the original comment was not related to any requirement of the draft ROP. Furthermore, the facility is not located in an environmental justice area, other public has not made any comments and no public controversies associated with this facility are known to the AQD, as of writing of this staff report.

**Changes to the Nvember 7, 2022 Draft ROP**

No changes were made to the draft ROP.

State Registration Number

B2132

## RENEWABLE OPERATING PERMIT

MARCH 13, 2023 - STAFF REPORT ADDENDUM

ROP Number

MI-ROP-B2132-2013

### Purpose

A Staff Report dated November 7, 2022, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 45-day EPA comment period as described in Rule 214(3). In addition, this addendum describes any changes to the proposed ROP resulting from these pertinent comments.

### General Information

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

### Summary of Pertinent Comments

No pertinent comments were received during the 45-day EPA comment period.

However, comments were received from USEPA regarding a lack of recordkeeping for material contents to demonstrate compliance on the AQD Cold Cleaner template in another ROP.

### Changes to the January 23, 2023 Proposed ROP

Due to the comment received from USEPA on the AQD Cold Cleaner template, the following change has been made to the flexible group conditions for FGCOLDLEANERS:

In Section VI Monitoring/Recordkeeping, added the following special condition as the third condition:

“The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component, used in each cold cleaner. The data may consist of Safety Data Sheets, manufacturer’s formulation data, or both as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1213(3))**”