

State Registration Number  
N3862

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N3862-2022

**Wexford County Landfill, LLC**

State Registration Number (SRN): N3862

Located at

990 North Mackinaw Trail, Manton, Wexford County, Michigan 49663

Permit Number: MI-ROP-N3862-2022

Staff Report Date: August 15, 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>AUGUST 15, 2022 - STAFF REPORT</b>	<b>3</b>
<b>SEPTEMBER 15, 2022 - STAFF REPORT ADDENDUM</b>	<b>8</b>

State Registration Number

N3862

**RENEWABLE OPERATING PERMIT**

**AUGUST 15, 2022 - STAFF REPORT**

ROP Number

MI-ROP-N3862-2022

**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:	Wexford County Landfill, LLC 990 North Mackinaw Trail Manton, Michigan 49663
Source Registration Number (SRN):	N3862
North American Industry Classification System (NAICS) Code:	562212
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202100062
Responsible Official:	Steve Kniss, General Manager 231-258-9961
AQD Contact: District Inspector:	Rob Dickman, Senior Environmental Quality Analyst 231-878-4697
AQD Contact: ROP Writer:	Matthew Karl, Environmental Quality Analyst 517-282-2126
Date Application Received:	March 22, 2021
Date Application Was Administratively Complete:	March 22, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	August 15, 2022
Deadline for Public Comment:	September 14, 2022

## **Source Description**

Wexford County Landfill is located along North Mackinaw Trail in Manton, Michigan. There are several private residences within ~1500 feet of the landfill's property to the west and north along North Mackinaw Trail, and to the south along East Long Lake Road. The nearest body of water is North Lake, which is ~3/4 of a mile to the southeast of the landfill.

Wexford County Landfill is classified as a Type II or Municipal Solid Waste (MSW) landfill. In Michigan, the Materials Management Division (MMD) establishes standards for Solid Waste Management. Rule 299.4104(d) defines a MSW or Type II landfill as:

“A landfill which receives household waste or municipal solid waste incinerator ash, and which is not a land application unit, surface impoundment, injection well, or waste pile. A municipal solid waste landfill may also receive other types of solid waste, such as any of the following: construction and demolition waste, sewage sludge, commercial waste, nonhazardous sludge, hazardous waste from conditionally exempt small quantity generators, industrial waste. Such a landfill may be publicly or privately owned.”

The landfill first started receiving waste in 1974. The landfill received a volume expansion permit in April of 2000 and another in August of 2012. It has a maximum design capacity of 3.45 million megagrams (Mg). As of March 2020, the landfill had 5.4 million cubic yards of waste in place and the waste acceptance rate was 310,000 cubic yards per year. The landfill currently accepts petroleum contaminated soils, sludge, asbestos containing waste, municipal household waste, and other waste.

Waste is transported to the landfill in a variety of vehicles that potentially generate fugitive dust particulate matter (PM) from interaction with the landfill's roads. After waste is transported to the landfill, it is emplaced in one of the active working areas known as cells. The landfill consists of various existing cells, newer expansion cells, and future proposed cells. Once waste is emplaced, over time, natural biological processes transform the waste materials and produce leachate and landfill gas (LFG). Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of the buried wastes creates LFG. LFG consists mainly of methane (CH<sub>4</sub>), carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), hydrogen sulfide (H<sub>2</sub>S), volatile organic compounds (VOCs) and non-methane organic compounds (NMOC). NMOC is the primary regulated air pollutant associated with LFG generation. Wexford County Landfill has been evaluated to generate less than 34 Mg per year of NMOC emissions.

Although not required because of the amount of NMOC emissions generated, the landfill has installed an active gas collection and control system (GCCS) that is used to prevent off-site migration of LFG as well as to control odor. The GCCS consists of vertical extraction wells which operate under a negative pressure vacuum generated by a blower. The collected LFG is then routed to a flare where it is combusted.

The landfill no longer uses the previously installed exempt equipment for the leachate evaporation system for leachate control. The facility received a permit from the Oil, Gas and Minerals Division (OGMD) to install a deep injection well for leachate disposal. The injection well permit was issued in late 2018 and leachate injection began in early 2019.

The landfill previously included a contaminated groundwater remediation system utilizing aeration ponds. The aeration ponds have been certified as closed (dismantled and removed) since 2017 and the emission unit EUAERATIONPOND will be removed during this permit renewal.

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**

<b>Pollutant</b>	<b>Tons per Year</b>
Carbon Monoxide (CO)	21.1
Nitrogen Oxides (NO <sub>x</sub> )	4.6
PM10*	6.1
Sulfur Dioxide (SO <sub>2</sub> )	2.3
Volatile Organic Compounds (VOCs)	0.3

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

The following table lists Hazardous Air Pollutant emissions as calculated from the Tier 2 testing performed in March 2022 by the source:

<b>Individual Hazardous Air Pollutants (HAPs) **</b>	<b>Tons per Year</b>
NMOC (HAP Surrogate)- uncontrolled by GCCS	26.5
NMOC (HAP Surrogate)- controlled by GCCS	9.1
<b>Total NMOC (HAP Surrogate)</b>	<b>35.6</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 Wexford 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 source was subject to the new source performance standard (NSPS) 40 CFR Part 60, Subpart WWW which requires affected facilities with a design capacity equal to or greater than 2.5 million cubic meters and 2.5 million megagrams to obtain a renewable operating permit (ROP).

Additionally, 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.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, because at the time of New Source Review permitting the potential to emit of each criteria pollutant was less than 250 tons per year.

The stationary source was subject to the Standards of Performance for Municipal Solid Waste Landfills promulgated in 40 CFR Part 60, Subparts A and WWW. On June 21, 2021, the facility became subject to the “Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014” as specified in

40 CFR Part 62, Subpart OOO. Wexford County Landfill is considered a legacy landfill under the Federal Plan. Michigan is not currently the authorized representative and is implementing and enforcing this regulation through the ROP.

The stationary source is subject to the National Emission Standard for Hazardous Air Pollutants for Asbestos promulgated in 40 CFR Part 61, Subparts A and M. These requirements are contained in EUASBESTOS.

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

No emission units have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring rule pursuant to 40 CFR Part 64. The emission limitation(s) or standard(s) for NMOC at the stationary source with the underlying applicable requirement(s) of 40 CFR Part 62, Subpart OOO are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(i) because the emission limitations and standards meet the CAM exemption for regulations proposed after November 15, 1990.

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.

Currently, no PTIs have been issued to this source. Therefore, no Source-Wide PTI will be issued.

#### **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**

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

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

This 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  
N3862

**RENEWABLE OPERATING PERMIT**  
**SEPTEMBER 15, 2022 - STAFF REPORT**  
**ADDENDUM**

ROP Number  
MI-ROP-N3862-2022

**Purpose**

A Staff Report dated August 15, 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:	Steve Kniss, General Manager 231-258-9961
AQD Contact: District Inspector:	Rob Dickman, Senior Environmental Quality Analyst 231-878-4697
AQD Contact: ROP Writer:	Matthew Karl, Environmental Quality Analyst 517-282-2126

**Summary of Pertinent Comments**

No pertinent comments were received during the 30-day public comment period.

**Changes to the August 15, 2022 Draft ROP**

No changes were made to the draft ROP.