

State Registration Number  
N6024

**RENEWABLE OPERATING PERMIT  
STAFF REPORT**

ROP Number  
MI-ROP-N6024-2024

**Huron Landfill Corporation dba Huron Landfill**

State Registration Number (SRN): N6024

Located at

4151 South McMillan Road, Bad Axe, Huron County, Michigan 48413

Permit Number: MI-ROP-N6024-2024

Staff Report Date: November 20, 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

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**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:	Huron Landfill 4151 South McMillan Road Bad Axe, Michigan 48413
Source Registration Number (SRN):	N6024
North American Industry Classification System (NAICS) Code:	562212 – Solid Waste Landfill
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Initial Issuance
Application Number:	202300129
Responsible Official:	Emmie Leung, President 810-667-4885
AQD Contact - District Inspector:	Gina McCann, Environmental Quality Specialist 989-439-2282
AQD Contact - ROP Writer:	Matthew Karl, Senior Environmental Quality Analyst 517-282-2126
Date Application Received:	August 7, 2023
Date Application Was Administratively Complete:	August 7, 2023
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	November 20, 2023
Deadline for Public Comment:	December 20, 2023

## **Source Description**

The Huron Landfill Corporation owns and operates the Huron Landfill located at 4151 South McMillan Road, Bad Axe, Michigan. The source is located the east of South McMillan Road and to the south of West McTaggart Road. The source is located in a rural area and is bordered by various farm fields.

The Huron Landfill is classified as a Type II landfill 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 Type II landfill as:

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

The site commenced operation in 1995 and originally operated under a permit to install (PTI) exemption Rule 336.1285(2)(aa) which exempts landfills, associated flares and leachate collection and handling equipment. The source was issued a Solid Waste Disposal Area Construction Permit on June 7, 2022, by the MMD. Construction on the newly permitted airspace began on August 22, 2022. The new design capacity of the landfill after the expansion was 4.13 million megagrams (Mg) and 3.78 million cubic meters which exceed the thresholds of 2.5 million Mg and 2.5 million cubic meters which triggered the applicability of the federal New Source Performance Standard (NSPS) Subpart XXX, which requires the source to obtain a renewable operating permit (ROP).

MSW materials and compostable materials are brought onsite using motor vehicles ranging in size from pickup trucks to garbage trucks. The vehicles have the potential to generate fugitive particulate matter (PM) emissions from the roads around the landfill. Compostable materials are deposited in the compost area. MSW is deposited in one of the active working areas, known as cells, and is compacted and covered with soil or other acceptable cover materials daily. When a cell reaches its design capacity, a liner is installed to cover the waste. 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 buried refuse creates most of the LFG. The LFG is comprised 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 (VOC) and non-methane organic compounds (NMOC). NMOC is the primary regulated air pollutant associated with LFG generation.

The maximum mass emissions of NMOC calculated by the EPA Landfill Gas Model (LandGEM) are for 2028 and were 30.10 Mg per year. The limited NMOC emissions at the source means that it is not required by federal regulation to operate an active landfill gas and collection and control system (GCCS).

LFG emissions are currently controlled by three (3) solar passive vent flares. These flares use solar panels to light a pilot flame to combust LFG. They are passive because the LFG is not actively moved by a fan. These flares allow for LFG flow ranges of 2 to 90 cubic feet per minute (cfm) containing 30 to 100% methane.

The landfill also operates the following fixed roof aboveground storage tanks (AST): two (2) 1000-gallon tanks for distillate fuel oil (diesel) for off-road vehicles, one (1) split-compartment tank with a 700-gallon compartment for distillate fuel oil (diesel) for on-road vehicles and a 300-gallon compartment for gasoline. There are also six (6) leachate storage tanks, three (3) 15,000-gallon, one (1) 16,000-gallon and two (2) 20,000-gallon tanks. Leachate is collected from the landfill and routed to one of these six ASTs where it is stored before being hauled offsite.

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)	26.72
Nitrogen Oxides (NO <sub>x</sub> )	1.43
PM10*	10.09
Sulfur Dioxide (SO <sub>2</sub> )	0.28
Volatile Organic Compounds (VOCs)	7.91
Non-Methane Organic Compounds (NMOC)	20.28

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

This source is an area source of hazardous air pollutant (HAP) emissions pursuant to Section 112(b) of the federal Clean Air Act. No HAP emissions data is reported.

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 Huron 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 is subject to 40 CFR Part 60, Subpart XXX that requires a 40 CFR Part 70 permit.

No emission units at the stationary source were subject to the Prevention of Significant Deterioration regulations of the Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality of Act 451 or 40 CFR 52.21 because at the time of New Source Review permitting the potential to emit of each criteria pollutant was less than 250 tons per year.

Although EULANDFILL and EUVENTFLARES were installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed.

EUASBESTOS at 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.

EULANDFILL at the stationary source is subject to the Standards of Performance for Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification after July 17, 2014, promulgated in 40 CFR Part 60, Subparts A and XXX.

The stationary source is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as promulgated in 40 CFR Part 63, Subparts A and AAAA. The permittee is complying with the testing requirements specified in 40 CFR 63.1959. The regulatory language in 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA are similar but not identical. Where applicable, similar citations are grouped together.

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, because all emission units at the stationary source either do not have a control device or those with a control device do not have potential pre-control emissions over the major source thresholds. Any future emission limitation(s) or standard(s) for NMOC would be covered with underlying applicable requirements of 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA, which are exempt from CAM pursuant to 40 CFR Part 64.2(b)(1)(iii) for NSPS or MACT 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.

**Streamlined/Subsumed Requirements**

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

**Non-applicable Requirements**

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

**Processes Not in the Draft ROP**

The following table lists PTI exempt processes that were not included in the Draft ROP pursuant to Rule 212(4). These processes are not subject to any process-specific emission limits or standards.

<b>Emission Unit ID</b>	<b>Description of Emission Unit</b>	<b>Rule 212(4) Citation</b>	<b>PTI Exemption Rule Citation</b>
EU-0002 (EUGASOLINETANK)	300-gal Gasoline Tank & Dispensing	Rule 212(4)(d)	Rule 284(2)(g)
EU-0003	700-gal Diesel Tank & Dispensing	Rule 212(4)(d)	Rule 284(2)(d)
EU-0004	1000-gal Diesel Tank & Dispensing	Rule 212(4)(d)	Rule 284(2)(d)
EU-0005	1000-gal Diesel Tank & Dispensing	Rule 212(4)(d)	Rule 284(2)(d)
EU-leachate	Six leachate tanks (see description in comments)	Rule 212(3)(f)	Rule 285(2)(aa)
EUVENTFLARES	Three solar passive vent flares.	Rule 212(3)(f)	Rule 285(2)(aa)
EU-heaters	Four propane furnaces (see description in comments)	Rule 212(4)(c)	Rule 282(2)(b)(i)
EU-propane tanks	Propane tanks for comfort heaters	Rule 212(4)(d)	Rule 281(2)(b)

### **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 Julie Brunner, ROP Central Unit Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

State Registration Number  
N6024

**RENEWABLE OPERATING PERMIT**  
**January 8, 2024 - STAFF REPORT ADDENDUM**

ROP Number  
MI-ROP-N6024-2024

**Purpose**

A Staff Report dated November 20, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

**General Information**

Responsible Official:	Emmie Leung, President 810-667-4885
AQD Contact - District Inspector:	Gina McCann, Environmental Quality Specialist 989-439-2282
AQD Contact - ROP Writer:	Matthew Karl, Senior 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 November 20, 2023 Draft ROP**

The USEPA has requested that annual compliance certifications be submitted electronically through the USEPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (<https://cdx.epa.gov/>), unless it contains confidential business information. If confidential business information is included, continue to mail the submission to USEPA as specified in General Condition 19. General Condition 19 in all Renewable Operating Permits is being updated for electronic submissions to the USEPA as follows:

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