

State Registration Number
N3634

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N3634-2022

Harland's Sanitary Landfill Incorporated / Manistee County Landfill

State Registration Number (SRN): N3634

Located at

3890 Camp Road, Manistee, Manistee County, Michigan 49660-9130

Permit Number: MI-ROP-N3634-2022

Staff Report Date: June 20, 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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RENEWABLE OPERATING PERMIT

JUNE 20, 2022 - STAFF REPORT

ROP Number

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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: | Harland's Sanitary Landfill Incorporated / Manistee County Landfill 3890 Camp Road Manistee, Michigan 49660-9130 |
| Source Registration Number (SRN): | N3634 |
| 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: | 201900141 |
| Responsible Official: | Todd Harland, General Manager 231-723-4850 |
| AQD Contact: District Inspector: | Rob Dickman, Senior Environmental Quality Analyst 231-878-4697 |
| AQD Contact: ROP Writer: | Matt Karl, Environmental Quality Analyst 517-282-2126 |
| Date Application Received: | August 19, 2019 |
| Date Application Was Administratively Complete: | August 19, 2019 |
| Is Application Shield in Effect? | Yes |
| Date Public Comment Begins: | June 20, 2022 |
| Deadline for Public Comment: | July 20, 2022 |

Source Description

Harland's Sanitary Landfill is located at 3890 Camp Road, in Manistee, Michigan. The nearest residences are located to the north of the landfill along Lindeman Road and Camp Road. There are two lakes located approximately a mile to the southwest of the landfill, King Lake and Shingle Mill Lake.

Harland's Sanitary Landfill is classified as a Type II sanitary landfill, which is a Municipal Solid Waste (MSW) Landfill. The facility currently accepts petroleum contaminated soils, sludge, municipal household waste, and other wastes. The facility does not accept asbestos containing waste materials. The landfill opened in 1977 and has an expected closure year of 2030.

Landfill gas is collected by an active gas collection and control system. This system consists of vertical extraction wells that are installed in the depths of the landfill refuse, and which remove landfill gas by vacuum that is applied to the well from the blower. The collected landfill gas is then routed to an open flare emissions control device.

The facility has a sulfur removal system which removes hydrogen sulfide (H₂S) from the landfill gas prior to the open flare emissions control device. The sulfur removal system reduces the amount of sulfur dioxide (SO₂) emissions from the open flare emissions control device. This control device was originally permitted in Permit to Install (PTI) Nos. 357-08, 357-08A, and 357-08B.

Testing conducted on August 13, 2019, indicated that the landfill had non-methane organic compounds (NMOC) emissions at or above 50 megagrams per year (Mg/yr). When actual NMOC emissions at Harland's Sanitary Landfill reached 50 Mg/yr, an approvable landfill gas collection and control system design plan was required under then applicable 40 CFR Part 60, Subpart WWW for MSW Landfills. Within 18 months after the design plan was submitted, the equipment specified in the approved design plan was required to be installed and operating properly.

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) | 44.5 |
| Lead (Pb) | 0.0 |
| Nitrogen Oxides (NO _x) | 8.4 |
| Particulate Matter (PM) | 1.0 |
| Sulfur Dioxide (SO ₂) | 9.7 |
| Volatile Organic Compounds (VOCs) | 0.3 |

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2020:

| Individual Hazardous Air Pollutants (HAPs) ** | Tons per Year |
|--|---------------|
| NMOC (HAP Surrogate per 40 CFR Part 63 Subpart AAAA) | 13.9 |
| Total Hazardous Air Pollutants (HAPs) | 13.9 |

**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 Manistee 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 40 CFR Part 60, Subpart WWW for MSW Landfills. The landfill was subject because the design capacity is greater than 2.5 Mg and 2.5 million cubic meters.

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

The stationary source is considered a "synthetic minor" source in regards to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451 or 40 CFR 52.21 because the stationary source accepted legally enforceable permit conditions limiting the potential to emit of sulfur dioxide to 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. Michigan is not currently the authorized representative and is implementing and enforcing this regulation through the ROP.

The stationary source is not subject to the National Emission Standard for Hazardous Air Pollutants for Asbestos promulgated in 40 CFR Part 61, Subparts A and M because asbestos is not accepted.

EULANDFILL, EUACTIVECOLL, and EUOPENFLARE at the stationary source are 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 stationary source is now subject to this standard as an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) of NMOC.

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.

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-N3634-2015 are identified in Appendix 6 of the ROP.

| PTI Number | | | |
|-------------------|---------|---------|--|
| 357-08 | 357-08A | 357-08B | |

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.

| PTI Exempt Emission Unit ID | Description of PTI Exempt Emission Unit | Rule 212(4) Citation | PTI Exemption Rule Citation |
|------------------------------------|--|-----------------------------|------------------------------------|
| EUGASSTORAGE | 500 gallon above ground unleaded gasoline storage tank. | R 336.1212(4)(d) | R 336.1284(2)(g) |
| EUGENERATOR | Emergency use 11 HP, 6 KVA electricity generator. | R 336.1212(4)(e) | R 336.1285(2)(g) |
| EUHEATERS | Propane heaters. Office, maintenance shop and leachate building. | R 336.1212(4)(c) | R 336.1282(2)(b)(i) |
| EUPROPANETANK | 500 gallon above ground propane storage tank. | R 336.1212(4)(d) | R 336.1284(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 Christopher Ethridge, Field Operations Manager. 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
N3634

RENEWABLE OPERATING PERMIT
JULY 21, 2022 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N3634-2022

Purpose

A Staff Report dated June 20, 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

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|----------------------------------|---|
| Responsible Official: | Todd Harland, General Manager 231-723-4850 |
| AQD Contact: District Inspector: | Rob Dickman, Senior Environmental Quality Analyst 231-878-4697 |
| AQD Contact: ROP Writer: | Matt 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 June 20, 2022 Draft ROP

No changes were made to the draft ROP.