

State Registration Number
N6035

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N6035-2022

Delta Solid Waste Management Authority

State Registration Number (SRN): N6035

Located at

5701 19th Avenue North, Escanaba, Delta County, Michigan 49829

Permit Number: MI-ROP-N6035-2022

Staff Report Date: August 1, 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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AUGUST 1, 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:	Delta Solid Waste Management Authority 5701 19 th Avenue North Escanaba, Michigan 49829
Source Registration Number (SRN):	N6035
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:	202100209
Responsible Official:	David Lundquist, Operations Manager 906-399-5639
AQD Contact:	Lauren Luce, Environmental Quality Analyst 906-202-0943
Date Application Received:	October 21, 2021
Date Application Was Administratively Complete:	October 21, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	August 1, 2022
Deadline for Public Comment:	August 31, 2022

Source Description

The Delta Solid Waste Management Authority (DSWMA) is a municipal solid waste (MSW) landfill located at 5701 19th Avenue North, Escanaba, in Delta County, Michigan. The landfill is more commonly referred to as the "Delta County Landfill" (Delta County LF). The Facility is owned by DSWMA and the City of Escanaba. It consists of 277.9 acres located in the N ½ of Section 22 and the S ½ of Section 15, T39N, R23W, Wells Township, Delta County, Michigan. The stationary source is in a rural setting about 2.5 miles NW of the City of Escanaba and is surrounded by undeveloped areas that are primarily wooded or wetlands. A sports club located to the east is the nearest developed property.

A landfill means an area of land or an excavation in which wastes are placed for permanent disposal. Overall, Delta County LF is classified as a Type II sanitary landfill, which is a MSW landfill. However, Delta County LF can be subdivided into the following: the Type II South Landfill has been closed since July 26, 2016; the newer Type II North Landfill began accepting waste May 18, 2015, and is the current active area; and two closed Type III landfills which contain only construction demolition waste and fly ash. The Type III cells are not subject to the requirements of the NSPS or NESHAP for Municipal Landfills or Part 70 permitting.

On July 9, 2009, DSWMA received approval for a construction expansion permit (Northern Expansion) for the Delta County LF from EGLE, Materials Management Division. The proposed landfill expansion increased the maximum design capacity of the landfill site from 1.65 million cubic yards to 7.85 million cubic yards (6.0 million cubic meters). Since the landfills design capacity exceeds 2.5 million Mg/2.5 million cubic meters the stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 requiring a Title V renewable operating permit.

A MSW landfill or a Type II landfill according to Part 115, Solid Waste Management, of Act 451, is: "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 MSW landfill also may receive other types of solid waste, such as commercial waste, non-hazardous sludge, conditionally exempt small quantity generator waste, and industrial waste. Such a landfill may be publicly or privately owned."

Delta County LF currently accepts sludge, asbestos containing wastes, fly ash, industrial waste, and miscellaneous solids, along with municipal household waste. Natural biological processes occurring in landfills transform the waste's constituents (above listed wastes) producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Leachate from the landfill is disposed of directly into the City of Escanaba's sanitary sewage treatment system.

Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas consists mainly of methane, carbon dioxide, and nonmethane organic compounds (NMOC). NMOC are the primary regulated air pollutants associated with landfill gas generation, which was promulgated as a regulated air pollutant under the Standards of Performance for New Stationary Sources, Subpart OOO - Standards of Performance for MSW Landfills (NSPS Subpart OOO).

Actual NMOC emissions at Delta County LF exceed 34 Megagrams annually (Mg/yr), therefore the landfill has an active gas collection control system (GCCS) with an open flare as a control device at both the North Landfill and the closed South Landfill. The South Landfill collection system and flare were completed and started on October 1, 1998. On March 26, 2020, the North Landfill gas collection system was installed and the flare was started. The applicable requirements of this system can be found in the ROP Tables EUACTIVECOLL, EUOPENFLARENORTH, EUOPENFLARESOUTH.

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)	72.8
Lead (Pb)	<1
Nitrogen Oxides (NO _x)	3.89
Particulate Matter (PM)	3.3
Sulfur Dioxide (SO ₂)	<1
Volatile Organic Compounds (VOCs)	<1
NMOC	24.33

This source is a true minor source of HAPs, thus no HAP emissions data is listed.

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 Delta 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 40 CFR Part 62, Subpart OOO for MSW Landfills that commenced construction on or before July 17, 2014 and have not been modified or reconstructed since July 17, 2014, which requires that a Part 70 Renewable Operating Permit (ROP) be submitted for all new and existing landfills with a design capacity equal to or exceeding 2.5 million MG and 2.5 million cubic meters.

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

No emission units at the stationary source are currently 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.

Although EUOPENFLARENORTH and EUOPENFLARESOUTH 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.

EULANDFILL, EUACTIVECOLL, and EUOPENFLARENORTH, EUOPENFLARESOUTH at the stationary source are subject to the Standards of Performance for MSW Landfills promulgated in 40 CFR Part 62, Subparts A and OOO.

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, EUACTIVECOLL, and EUOPENFLARENORTH, EUOPENFLARESOUTH at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for MSW Landfill promulgated in 40 CFR Part 63, Subparts A and AAAA.

EULANDFILL, EUACTIVECOLL, and EUOPENFLARENORTH, EUOPENFLARESOUTH at the stationary source are subject to the National Emissions Standards for Hazardous Air Pollutants: MSW Landfills as promulgated in 40 CFR Part 63, Subparts A and AAAA. Beginning no later than September 27, 2021, all landfills described in 40 CFR 63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in 40 CFR 63.1930(a) at any time before September 27, 2021. Currently, the requirements for 40 CFR 63.1930(a) are included as applicable in this ROP Renewal.

Significant changes from the previous ROP include replacing requirements from 40 CFR Part 60, Subpart WWW and 40 CFR Part 63, Subpart AAAA with flexible group special conditions for the new applicable requirements from 40 CFR Part 62, Subpart OOO and 40 CFR Part 63, Subpart AAAA. Additionally, Appendix 7 of the ROP has been updated with 40 CFR Part 62, Subpart OOO and 40 CFR Part 63, Subpart AAAA requirements. EULANDFILL has been replaced by FGLANDFILL-OOO and FGLANDFILL-AAAA. EUACTIVECOLL has been replaced by FGACTIONCOLL-OOO and FGACTIONCOLL-AAAA. EUOPENFLARE has been split into two emission units EUOPENFLARENORTH and EUOPENFLARESOUTH and placed into FGOPENFLARE-OOO and FGOPENFLARE-AAAA as the landfill has open flares at both the North and South Landfills. EUASBESTOS has been updated with the requirements from 40 CFR Part 62, Subpart OOO in Special Conditions IV.1 and VI.3 replacing functionally identical but obsolete requirements from 40 CFR Part 60, Subpart WWW. Additional monitoring/recordkeeping requirements were added to EUFURNACE1 to make SC I.1 and SC II.1 practically enforceable.

EUFURNACE1 covers Model CG-2500 Clean Burn multi-oil furnace with a 250,000 BTU/hr heat output using 1.7 gph/hr of fuel oil. EUFURNACE1 incorporates applicable requirements contained in Air Use Permit to Install No. 30-03B which was issued on September 1, 2015

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. ROP-MI-N6035-2017 are identified in Appendix 6 of the ROP.

PTI Number			
30-03B			

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 Michael Conklin, Acting Marquette District 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
N6035

RENEWABLE OPERATING PERMIT
SEPTEMBER 2, 2022 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N6035-2022

Purpose

A Staff Report dated August 1, 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:	David Lundquist, Operations Manager 906-399-5639
AQD Contact:	Lauren Luce, Environmental Quality Analyst 906-202-0943

Summary of Pertinent Comments

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

Changes to the August 1, 2022 Draft ROP

No changes were made to the draft ROP.