

State Registration Number
N5985

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N5985-2024

**Republic Services of Michigan IV, LLC
Whitefeather Landfill**

and

Energy Developments Pinconning, LLC

State Registration Number (SRN): N5985

Located at

2401 East Whitefeather Road, Pinconning, Bay County, Michigan 48650

and

2403 East Whitefeather Road, Pinconning, Bay County, Michigan 48650

Permit Number: MI-ROP-N5985-2024

Staff Report Date: October 23, 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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RENEWABLE OPERATING PERMIT

OCTOBER 23, 2023 - STAFF REPORT

ROP Number

MI-ROP-N5985-2024

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:	Section 1: Whitefeather Landfill 2401 East Whitefeather Road Pinconning, Michigan 48650 Section 2: Energy Developments Pinconning, LLC 2403 East Whitefeather Road Pinconning, Michigan 48650
Source Registration Number (SRN):	N5985
North American Industry Classification System (NAICS) Code:	562212
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201800020
Responsible Official:	Section 1: Richard Rolf, General Manager 810-768-2232 Section 2: Rocky Tondo, Head of Project Delivery and Technical Services 330-728-5266
AQD Contact:	Gina McCann, Environmental Quality Specialist 989-439-2282
Date Application Received:	August 1, 2023
Date Application Was Administratively Complete:	August 1, 2023
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	October 23, 2023
Deadline for Public Comment:	November 22, 2023

Source Description

The Whitefeather Landfill facility is owned by Republic Services of Michigan IV, LLC. The facility is located in Bay County near the City of Pinconning. This stationary source includes a Type II, active municipal solid waste landfill (MSW) with an active landfill gas collection system, both of which are operated year-round. The collection system is comprised of a series of gas wells, a network of collection piping and headers, condensate drains, one enclosed flare, an open flare, and one Landfill Gas-to-Energy Facility (owned and operated by Energy Developments Pinconning, LLC). Solid waste arrives in a variety of vehicles that potentially generate fugitive dust emissions. The primary standard industrial code is 4953 (Municipal Solid Waste Landfill).

The landfill serves as the final disposal point for general and household waste and inert wastes such as construction and demolition debris, foundry sand, ash, and low level contaminated soils. The facility also accepts asbestos waste. The solid waste is transported to the facility to an area (cell) where it is deposited on the working surface. The deposited waste is covered with soil or other approved alternate daily cover materials (ADCM) on a daily basis. When a cell reaches its design capacity, a liner is installed, covering the waste. Natural biological processes occurring in landfills decompose the waste, producing leachate and landfill gas. Initially, decomposition is aerobic until the oxygen supply is exhausted. Anaerobic decomposition of buried refuse creates most of the landfill gas. Landfill gas (LFG) consists mainly of methane, carbon dioxide, and a small percentage of non-methane organic compounds (NMOC). The NMOC fraction consists of various organic hazardous air pollutants (HAP), greenhouse gases, and volatile organic compounds (VOC).

The LFG is collected at the Whitefeather Landfill facility by an active gas collection system through a series of vertical extraction wells that are installed into the depths of the landfill refuse, which remove LFG by vacuum applied to the well from a blower. The LFG is then routed to the Energy Developments Pinconning, LLC site for generation of electricity. Any excess LFG, or when the Energy Developments Pinconning, LLC site is down, is routed to the open flare. The collection system is periodically modified by adding a gas well and/or collection piping as needed when sections of the landfill begin to produce significant gas quantities. An enclosed flare is also on-site and can be reconnected to the gas collection lines if necessary.

The two companies have a contractual agreement in which Whitefeather Landfill sells landfill gas to Energy Developments Pinconning, LLC and Energy Developments Pinconning, LLC is dependent upon Whitefeather Landfill to provide landfill gas which is combusted in its two internal combustion engines. The contractual and spatial relationship of the two facilities establishes Whitefeather Landfill and Energy Developments Pinconning, LLC as a single stationary source based on the definition in Rule 336.1119(r) of the administrative rules promulgated pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Formerly, the two companies operated under separately issued ROPs. Energy Developments Pinconning, LLC operated previously under SRN P0437; however, due to an AQD policy change, was combined with Whitefeather Landfill's SRN N5985.

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)	87.69
Lead (Pb)	Not Reported
Nitrogen Oxides (NO _x)	21.81
PM10*	10.20
Sulfur Dioxide (SO ₂)	8.92

Pollutant	Tons per Year
Volatile Organic Compounds (VOCs)	16.89

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

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2022 by Energy Developments Pinconning, LLC and MAERS:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
NMOC	3.45
Formaldehyde	6.52
Total Hazardous Air Pollutants (HAPs)	9.97

**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 Bay 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 potential to emit of carbon monoxide exceeds 100 tons per year and 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. The source is subject to 40 CFR Part 62, Subpart OOO and 40 CFR Part 63, Subpart AAAA, 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

FGICENGINES at the stationary source are subject to the Standards of Performance for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ.

EULANDFILL<34 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.

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. The stationary source is considered a legacy landfill under the Federal Plan. Michigan is not currently the delegated authority and is implementing and enforcing this regulation through the ROP.

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.

FGMACTCCCCC at the stationary source is subject to the National Emissions Standards for Hazardous Air Pollutants for Gasoline Dispensing Facilities promulgated in 40 CFR Part 63, Subparts A and CCCCC (Gasoline Dispensing Facilities Area Source MACT). The ROP contains special conditions for applicable requirements from 40 CFR Part 63, Subpart CCCCC. The AQD is not delegated the regulatory authority for this area source MACT.

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-N5985-2019 are identified in Appendix 6 of the ROP.

PTI Number			
130-08			

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.

Emission Unit ID	Description of Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUCOLDCLEANER	Cold cleaner for parts washer	R 336.1212(4)(b)	R 336.1281(2)(h)
EUPROPANEHEATERS	Multiple propane fired space heaters and hot water heater	R 336.1212(4)(c)	R 336.1282(2)(b)(i)

Emission Unit ID	Description of Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
	for heating buildings <50 mmBTU		
EUPROPANETANKS	Five (5) propane storage tanks: two (2) 1,000 gallon, two (2) 500 gallon and one (1) 375 gallon	R 336.1212(4)(d)	R 336.1284(2)(b)
PORTTORCHCUTS	Two (2) portable cutting torches for equipment repair and maintenance	R 336.1212(4)(e)	R 336.1285(2)(j)(i)
EULEACHATETANKS	Two (2) 60,000 gallon above-ground leachate storage tanks	R 336.1212(4)(i)	R 336.1291
EUUSED OILTANK	One (1) 500 gallon used oil tank	R 336.1212(4)(d)	R 336.1284(2)(i)
EUDIESEL TANKS	Five (5) 1,000 gallon diesel tanks	R 336.1212(4)(d)	R 336.1284(i)
EUDIESEL TANKS2	One (1) 2,000 gallon mobile diesel tank	R 336.1212(4d)	R 336.1284(i)
EULUBE OILTANKS	Two (2) 500 gallon lube oil tanks	R 336.1212(4)(d)	R 336.1284(2)(i)
EUDIESELEXHAUSTFUEL	Three (3) DEF storage tanks: two (2) 250 gallon, one (1) 300 gallon	R 336.1212(4)(d)	R 336.1284(i)
EUGASOLINETANK	One (1) 300 gallon gasoline storage tank	R 336.1212(4)(d)	R 336.1284(i)

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 Chris Hare, Bay City 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
N5985

RENEWABLE OPERATING PERMIT
NOVEMBER 28, 2023 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-N5985-2024

Purpose

A Staff Report dated October 23, 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:	Section 1: Richard Rolf, General Manager 810-768-2232 Section 2: Rocky Tondo, Head of Project Delivery and Technical Services 330-728-5266
AQD Contact:	Gina McCann, Environmental Quality Specialist 989-439-2282

Summary of Pertinent Comments

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

Changes to the October 23, 2023 Draft ROP

No changes were made to the draft ROP.