

State Registration Number
N2896

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-N2896-2023

C&C Expanded Sanitary Landfill

State Registration Number (SRN): N2896

Located at

14800 P Drive North, Marshall, Calhoun County, Michigan 49068

Permit Number: MI-ROP-N2896-2023

Staff Report Date: October 31, 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

October 31, 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:	C&C Expanded Sanitary Landfill 14800 P Drive North Marshall, Michigan 49068
Source Registration Number (SRN):	N2896
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:	202100109
Responsible Official:	Christopher Nie, Area President, Great Lakes Area 317-917-7358
AQD Contact:	Matt Deskins, Environmental Quality Analyst 269-303-8326
Date Application Received:	July 2, 2021
Date Application Was Administratively Complete:	July 2, 2021
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	October 31, 2022
Deadline for Public Comment:	November 30, 2022

Source Description

The C&C Expanded Sanitary Landfill (Landfill) is located approximately 5 miles northwest of Marshall, Michigan. The area surrounding the landfill is rural with a mix of agricultural and residential properties. The stationary source includes an active municipal solid waste (MSW) landfill with an active landfill gas collection system. Previous ROPs had two sections, with each section representing a separate company. Section 1 covered landfill operations, and Section 2 covered landfill gas-to-energy equipment owned and operated by C&C Energy, LLC (C&C Energy). Both facilities requested that they be issued a separate ROP, which was approved. The AQD still considers them to be one stationary source. The C&C Energy has been assigned State Registration Number P0222.

The Landfill is licensed as a Type II MSW landfill and serves as a disposal point for residential waste, industrial non-hazardous waste, and municipal solid waste. The decomposing waste encapsulated within the landfill produces a gas that is primarily composed of methane and carbon dioxide, along with other trace gases. The landfill gas generated within the waste mass is collected through a series of wells and other collection points that are under vacuum. The landfill gas is then routed to the off-site user C&C Energy to be combusted in either their turbine or internal combustion engines for electrical generation and emissions control. When C&C Energy is not in operation or there is excess landfill gas present, the open flare owned by the Landfill is used for emission control.

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)	59.58
Nitrogen Oxides (NO _x)	37.29
Particulate Matter (PM)	14.59
Sulfur Dioxide (SO ₂)	16.56
Volatile Organic Compounds (VOCs)	3.10
Non-Methane Organic Compound (NMOCs)	13.28

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.

Calhoun County 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 source is subject to 40 CFR Part 60, Subpart XXX (New Source Performance Standards for Municipal Solid Waste Landfills) 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 Part 70 permit.

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 criteria pollutant was less than 250 tons per year.

FGLANDFILL-XXX, FGACTIONECOLL-XXX, EUFLARE1, and FGOPENFLARE-XXX at the stationary source are subject to the New Source Performance Standards for Municipal Solid Waste Landfills promulgated in 40 CFR Part 60, Subparts A and XXX.

EUASBESTOS, FGLANDFILL-XXX, and FGLANDFILL-AAAA at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Asbestos promulgated in 40 CFR Part 61, Subparts A and M.

FGLANDFILL-AAAA, FGACTIONECOLL-AAAA, EUFLARE1, and FGOPENFLARE-AAAA at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Municipal Solid Waste Landfills as promulgated in 40 CFR Part 63, Subparts A and AAAA.

The AQD's Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. Emission units installed before December 20, 2016, can comply with the requirements of Rule 287 and Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the tables.

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."

The emission limitation(s) or standard(s) for FGLANDFILL-XXX, FGLANDFILL-AAAA, FGACTIONECOLL-XXX, FGACTIONECOLL-AAAA, EUFLARE1, FGOPENFLARE-XXX, FGOPENFLARE-AAAA, and EUASBESTOS at the stationary source are exempt from the federal Compliance Assurance Monitoring regulation under 40 CFR Part 64, because they are addressed by either 40 CFR Part 60, Subparts A and XXX; 40 CFR Part 61, Subpart M; and 40 CFR Part 63, Subparts A and AAAA.

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-N2896-2017 are identified in Appendix 6 of the ROP.

PTI Number			
373-91	1051-92	118-12	

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) Exemption	PTI Exemption Rule Citation
EU-DIESELFUEL	10,000 gallon diesel fuel AST and on the working face there are two 1,000 gallon and one 300 gallon diesel fuel tanks.	R 336.1212(3)(e)	R 336.1284(2)(d)
EU-GASOLINE	525 gallon gasoline AST	R 336.1212(4)(c)	R 336.1284(2)(g)
EU-KEROSENE	275 gallon kerosene AST	R 336.1212(3)(e)	R 336.1284(2)(d)
EU-WASTEOIL	530 gallon waste oil tank	R 336.1212(3)(e)	R 336.1284(2)(c)
EU-MOTOROIL	350 gallon motor oil tank	R 336.1212(3)(e)	R 336.1284(2)(c)
EU-HYDRAULICOIL	350 gallon hydraulic oil tank	R 336.1212(3)(e)	R 336.1284(2)(c)
EU-TRANSFLUID	330 gallon transmission fluid tank	R 336.1212(3)(e)	R 336.1284(2)(c)
EU-HEATERS	Natural gas heaters. Three 0.3 MMBTU/hr and one 0.1 MMBTU/hr heaters in the shop. One 0.1MMBTU/hr heater in the main office.	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EU-WATERHEAT	Two 0.04 MMBTU/hr natural gas hot water heaters. One in the shop and one in the main office.	R 336.1212(4)(b)	R 336.1282(2)(b)(i)
EU-LPTANK	1,000 gallon liquid propane tank	R 336.1212(4)(c)	R 336.1284(2)(b)
EU-LEACHATE	Two 141,000 gallon and one 256,000 gallon leachate storage tanks.	R 336.1212(3)(f)	R 336.1285(2)(aa)

Draft ROP Terms/Conditions Not Agreed to by Applicant

The following table lists terms and/or conditions of the draft ROP that the AQD and the applicant did not agree upon and outlines the applicant’s objections pursuant to Rule 214(2). The terms and conditions that the AQD believes are necessary to comply with the requirements of Rule 213 shall be incorporated into the ROP.

Emission Unit/ Flexible Group ID	Permit Term(s) and/or Condition(s) in Dispute	Applicant's Objection
FGOPENFLARE- XXX and FGOPENFLARE- AAAA	Condition V.3 of the Testing / Sampling	C&C Expanded Sanitary Landfill does not feel the requirement to perform testing on the open flare specified in condition FGOPENFLARE-XXX V.3 and FGOPENFLARE-AAAA V.3 is justified because there is no reasonable expectation that it could be out of compliance. The federal rules require testing one time, upon installation, to establish that the flare installed was sized properly and that the design was such that there would be no visible emission. Once these conditions are met, unless the flare is reconstructed/modified, there is no reasonable expectation that the flare would not meet the compliance requirements going forward.

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 Rex Lane, Kalamazoo 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

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RENEWABLE OPERATING PERMIT

December 14, 2022 - STAFF REPORT ADDENDUM

ROP Number

MI-ROP-N2896-2023

Purpose

A Staff Report dated October 31, 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:	Christopher Nie, Area President, Great Lakes Area 317-917-7358
AQD Contact:	Matt Deskins, Environmental Quality Analyst 269-303-8326

Summary of Pertinent Comments

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

Changes to the October 31, 2022 Draft ROP

Recently, the United State Environmental Protection Agency (USEPA) had commented on a landfill ROP that affected the landfill templates that were used in this ROP and therefore, the following changes have been made:

EUASBESTOS, SC III.1(d) has been removed from the ROP.

“and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.” was added to EUASBESTOS, SC VI.1(c) to completely incorporate 40 CFR 61.154(e)(3).

FGOPENFLARE-AAAA, VI.2(b), was changed to “Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.” to address the monthly visual inspection per 40 CFR 63.1961(c)(2)(ii).

In Appendix 7, typographical errors were corrected.