Michigan Department of Environment, Great Lakes, and Energy
Air Quality Division

State Registration Number		ROP Number
N1324	**RENEWABLE OPERATING PERMIT STAFF REPORT**	MI-ROP-N1324-2023a

South Kent Landfill
and
Energy Developments Byron Center, LLC

State Registration Number (SRN): N1324

Located at

10300 South Kent Drive SW, Byron Center, Kent County, Michigan 49315

Permit Number:	MI-ROP-N1324-2023a
Staff Report Date:	November 28, 2022 March 13, 2023
Amended Date:	December 15, 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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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)	South Kent Landfill 10300 South Kent Drive SW Byron Center, Michigan 49315
Stationary Source Mailing Address: (Section 2)	Energy Developments Byron Center, LLC PO Box 15217 Lansing, Michigan 48901
Source Registration Number (SRN):	N1324
North American Industry Classification System (NAICS) Code:	562212 – Municipal Solid Waste 221112 – Fossil Fuel Electric Power Generation
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	202200157
Responsible Official: (Section 1)	Darwin Bass, Director of Public Works 616-632-7919
Responsible Official: (Section 2)	Rocky Tondo, North America Head of Project Delivery and Technical Services 616-632-7932
AQD Contact - District Inspector:	Michael Cox, Environmental Quality Analyst 616-240-3607
AQD Contact - ROP Writer:	Matt Karl, Senior Environmental Quality Analyst 517-282-2126
Date Application Received:	August 16, 2022
Date Application Was Administratively Complete:	August 16, 2022
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	November 28, 2022
Deadline for Public Comment:	December 28, 2022

Source Description

SECTION 1:

The South Kent Landfill is located in Byron Center, in Kent County, Michigan. Buck Creek runs along the southwest border of the landfill. US-131 runs along the eastern border of the landfill. There are several businesses within a mile to the north of the landfill along 100th Street SW including Endurance Fitness Byron Center/Southside Ice Arena, Schwan's Depot and Martin Design and Fabrication. To the south of the landfill along 108th Street SW is a Circuit Electric contracting business.

The South Kent 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."

Although construction of the South Kent Landfill began in June 1981, the site did not accept waste until September 1982. According to the South Kent Landfill initial design capacity report submitted on June 6, 1996, the landfill has an active capacity of over 10 million cubic meters. In September 2017, the site received a construction permit for a lateral and vertical expansion which will increase the permitted design capacity of the landfill. The South Kent Landfill commenced construction for the expansion in May 2019, subjecting the facility to the federal New Source Performance Standards (NSPS) under 40 CFR Part 60, Subpart XXX for New MSW Landfills.

The site accepts about 175,000 tons of waste per year. During 2021, there were 8,401,958 tons of waste in place. Waste materials arrive in a variety of vehicles that have the potential to generate fugitive particulate matter (PM) emissions from the haul roads around the landfill.

After waste is transported to the landfill, it is placed in one of the active working areas, known as cells, and is covered daily with soil or other cover materials. 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 mostly of methane (CH_4), carbon dioxide (CO_2), carbon monoxide (CO), hydrogen sulfide (H_2S), volatile organic compounds (VOC) and non-methane organic compounds (NMOC). NMOC is the primary regulated air pollutant associated with LFG generation.

In September 2019, the South Kent Landfill conducted a Tier II test to determine the NMOC concentration and NMOC emission rate from the entire landfill including both closed and active portions. The Tier II test results indicated that NMOC emissions were expected to be 29.1 megagrams (Mg) through 2024. Since the NMOC emissions were under the 34 Mg per year threshold in Subpart XXX, the South Kent Landfill is not subject to the LFG collection and control requirements. However, the South Kent Landfill voluntarily installed and operates an active landfill gas collection system and an open flare control. The open flare was installed under new source review (NSR) permit exemption Rule 285(2)(aa).

SECTION 2:

In addition, there is an electricity generating station on site. Energy Developments Byron Center, LLC, acquired Granger Electric of Byron Center in August 2017. The facility is located within the perimeter of the South Kent Landfill property. Energy Developments Byron Center, LLC consists of one landfill gas

treatment system and two Caterpillar model G3520C internal combustion engines used to generate electricity for sale. LFG from the South Kent Landfill is piped to the electric generating station treatment system where the gas is filtered, dewatered, compressed, and cooled. There are no atmospheric vents or emissions from the landfill gas treatment systems; any gas not burned in the engines is routed to the exempt open flare control. The two engines normally operate 24 hours per day, 7 days per week. The two engines were installed under Permit to Install (PTI) No. 212-08, and the conditions for the engines were revised and updated in PTI Nos. 212-08A and again in 212-08B, which has subsequently been rolled into the previous version of the ROP. Air emissions from the engines' exhaust include CO, NOx, VOCs and formaldehyde.

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)	33.3
Nitrogen Oxides (NO_x)	23.9
PM10*	10.5
Sulfur Dioxide (SO_2)	25.5
Volatile Organic Compounds (VOCs)	24.2

*PM10 = particulate matter that has an aerodynamic diameter of less than or equal to 10 micrometers.

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2021 by using information included with the MAERS report:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
NMOC (HAP Surrogate per 40 CFR Part 63, Subpart AAAA)	13.9
Formaldehyde	3.9
Total Hazardous Air Pollutants (HAPs) (including formaldehyde)	**8.0**
Total HAPs (including formaldehyde and NMOC)	**21.9**

**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 Kent 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 CO exceeds 100 tons per year. Also, 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. Additionally, the source is subject to 40 CFR Part 60, Subpart XXX 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. The potential to emit of Nonmethane Organic Compounds (NMOCs) does not exceed 50 megagrams per year (Mg/yr).

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 each criteria pollutant was less than 250 tons per year.

EULANDFILL<34 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.

EUICEENGINE1 and EUICEENGINE2 (FGRICENSPS) 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.

EUICEENGINE1 and EUICEENGINE2 (FGRICEMACT) at the stationary source are subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ.

EULANDFILL<34 at 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 landfill has accepted waste since November 8, 1987, has additional capacity for waste deposition and meets the criteria of being collocated with a major source (of HAPs) as defined in 40 CFR 63.2. Beginning no later than September 27, 2021, all landfills described in 40 CFR 63.1935 must meet the requirements of this subpart.

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 limitations and standards for NMOC at the stationary source with the underlying applicable requirements of 40 CFR Part 60, Subpart XXX and 40 CFR Part 63, Subpart AAAA from EULANDFILL<34 are exempt from the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR 64.2(b)(1)(i) because the emission limitations and standards meet the CAM exemption for NSPS or MACT proposed after November 15, 1990.

The emission limitations and standards for NOx, CO, and VOCs at the stationary source with the underlying applicable requirements of 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ from FGRICENSPS and FGRICEMACT are exempt from the federal CAM regulation because these engines do not have control devices.

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-N1324-2018b are identified in Appendix 6 of the ROP.

PTI Number			
212-08	212-08A		

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
EUFACILITY HEAT	One facility furnace (85,500 BTU/hr).	R 336.1212(4)(c)	R 336.1282(2)(b)
EULubeOilTank	550-gallon steel tank used to store lubrication oil.	R 336.1212(3)(e)	R 336.1284(2)(c)
EUWasteOilTank	550-gallon steel tank used to store waste oil.	R 336.1212(3)(e)	R 336.1284(2)(c)
EUHydraulicOilTank	55-gallon steel tank used to store hydraulic oil.	R 336.1212(3)(e)	R 336.1284(2)(c)
EUWasteOilTank2	550-gallon plastic tank used to store waste oil.	R 336.1212(3)(e)	R 336.1284(2)(c)
EUCoolantTank	Four (4) 275-gallon plastic tanks used for coolant storage.	R 336.1212(3)(e)	R 336.1284(2)(c)
EULubeOilSmallTanks	Two (2) 30-gallon steel tank used for lube oil storage.	R 336.1212(3)(e)	R 336.1284(2)(c)

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, Assistant Division Director. 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.

Purpose

A Staff Report dated November 28, 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 – Section 1:	Darwin Bass, Director of Public Works 616-632-7919
Responsible Official – Section 2:	Daniel Rose, Solid Waste Operations Manager 616-632-7932
AQD Contact – District Inspector:	Michael Cox, Environmental Quality Analyst 616-240-3607
AQD Contact – ROP Writer:	Matt Karl, Senior Environmental Quality Analyst 517-282-2126
Date Public Comment Begins:	March 13, 2023
Deadline for Public Comment:	April 12, 2023

Summary of Pertinent Comments

The following comments were received from the EPA during the 30-day public comment period.

EPA Comment 1:

EULANDFILL<34, SC IX.3 (page 17) requires the permittee to comply with all applicable provisions of 40 CFR Part 63 Subparts A and AAAA (MACT AAAA). However, the draft permit does not appear to incorporate any specific requirements under MACT AAAA that apply to the source. 40 CFR 70.6(a)(1) and Michigan R 336.1213(2) require each ROP to contain emission limits and standards, including operational requirements and limits that ensure compliance with all applicable requirements at the time of permit issuance. Additionally, 40 CFR 70.6(a)(3) and Michigan R 336.1213(3) require the permit to contain terms and conditions necessary to ensure that sufficient testing, monitoring, recordkeeping, reporting, and compliance evaluation activities will be conducted to determine the status of compliance. Without identifying the applicable MACT AAAA requirements in the permit, it is unclear which provisions of MACT AAAA apply to the permittee and whether the permit incorporates sufficient monitoring, recordkeeping, and reporting requirements to ensure compliance with MACT AAAA. As a result, the draft permit does not appear to ensure compliance with all applicable MACT AAAA requirements. To ensure that the permit incorporates all applicable requirements, and the permit includes monitoring, recordkeeping, and reporting requirements sufficient to determine compliance with MACT AAAA, I request that you revise the draft permit to incorporate all applicable MACT AAAA requirements into the permit.

AQD Response 1:

Created a new template “ROP Landfills NMOC less than 50 Mg AAAA” that incorporates all of the applicable MACT AAAA requirements into the permit. This adds flexible group FGLANDFILL-AAAA<50 which contains the testing/sampling, monitoring/recordkeeping, reporting and other requirements. Updated Appendix 5-1 to include the testing procedures referenced in FGLANDFILL-AAAA<50. Updated Appendix 7-1 to include the emission calculations referenced in FGLANDFILL-AAAA<50.

EPA Comment 2:

EULANDFILL<34, SC V.1 (page 15) is an applicable testing requirement to determine the NMOC mass emission rate as required by 40 CFR Part 60, Subpart XXX (NSPS XXX). The testing requirement allows the permittee “an alternate method, or a modification to the approved USEPA method, may be specified in an AQD approved test protocol.” As worded, the draft permit may allow the permittee to specify an alternative method for determining the NMOC mass emission rate that is not consistent with NSPS XXX. However, NSPS XXX specifies the methods that must be used to demonstrate compliance with the appropriate standard and allows alternative methods to be used in limited cases. Notably, EULANDFILL<34, SC V.2 incorporates 40 CFR 60.764(a)(5) which allows an alternative method for determining the NMOC concentration or a site-specific methane generation content if approved by the EPA Administrator, an authority that is not delegated to the state pursuant 40 CFR 60.760(b). I request that you revise SC V.1 to specify that the permittee may not use an alternative method unless otherwise approved consistent with the requirements in NSPS XXX.

AQD Response 2:

Moved conditions in EULANDFILL<34 to a flexible group named FGLANDFILL-XXX<34. Updated FGLANDFILL-XXX<34, SC V.1 to specify that “… testing must be performed using procedures and calculations as described in Appendices 5-1 and 7-1.” These appendices include the test procedures and emission calculations required by 40 CFR 60.764(a). Removed the sentence “an alternate method, or a modification to the approved USEPA method, may be specified in an AQD approved test protocol.”

EPA Comment 3:

EULANDFILL, SC V.1(a) (page 15) requires Tier 1 and Tier 2 to be recalculated annually if the NMOC mass emission rate is less than the standard. EULANDFILL, SC V.1(b) requires the permittee to also conduct Tier 2 testing at least once every five years. 40 CFR 60.764(a)(3) requires the landfill owner and operator, in part, to determine the site-specific NMOC concentration. As written, SC V.1(a) may require the permittee to recalculate both the NMOC mass emission rate and the site-specific NMOC concentration annually. However, 40 CFR 60.764(a)(3)(iii) requires the permittee to recalculate the NMOC mass emission rate annually if the NMOC mass emission rate is less than 34 Mg/yr and to retest the site-specific NMOC concentration every 5 years. For clarity and to ensure the applicable requirement is correctly incorporated into the permit, I request that you revise SC V.1(a) to specify that the NMOC mass emission rate must be recalculated annually. I also request that you revise SC V.1(b) to specify that the site-specific NMOC concentration is retested every 5 years.

AQD Response 3:

Updated FGLANDFILL-XXX<34, SC V.1.a to specify the “… NMOC mass emission rate must be recalculated annually if the NMOC mass emission rate is less than the standard.”

Updated FGLANDFILL-XXX<34, SC V.1.b to specify “… NMOC concentration testing must be performed at least once every five years.”

EPA Comment 4:

EULANDFILL, SC V.1(c) (page 15) requires the permittee to establish a site-specific methane generation constant using a tier 3 site-specific methane generation rate constant. As worded, the permit may require the permittee to calculate a site-specific methane generation rate constant for all NMOC mass emission rate constants. However, 40 CFR 60.764(a)(3)(iv)(B) requires the use of a tier 3 procedure if the NMOC mass emission rate using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 Mg/yr. For permit clarity, I recommend that you revise SC V.1(c) to state that Tier 3 testing is required if the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 Mg/yr.

AQD Response 4:

Updated FGLANDFILL-XXX<34, SC V.1.a to note that "if the results are equal to or greater than 34 Mg, then the permittee must move to the next higher tier…" and SC V.1.c. specifies "Tier 3 testing must be performed to establish a site-specific methane generation rate constant."

EPA Comment 5:

Appendix 5-1, Tier 2, paragraphs 3 and 4 (page 21) incorporates Tier 2 testing procedures that the permittee must follow to determine the NMOC mass emission rate using a site-specific NMOC concentration. The language included in the permit allows the permittee to use 40 CFR Part 60, Appendix A, Method 18 as an alternative to Methods 25 or 25C. However, the language at 40 CFR 60.764(a)(3) does not allow the use of Method 18. Instead, the permittee must use Method 25 or 25C to determine the NMOC concentration. Although allowed by a similar condition under NSPS WWW (see 40 CFR 60.754(a)(3)), EPA intentionally excluded the use of Method 18 for this purpose (see the discussion included in the preamble to 40 CFR Part 60, Subpart XXX at 81 FR 59331, page 59360, at https://www.federalregister.gov/documents/2016/08/29/2016-17687/standards-of-performance-for-municipal-solid-waste-landfills). For consistency with NSPS XXX and the applicable requirement at 40 CFR 60.764(a)(3), I request that you remove the references to Method 18 from this part of the draft permit.

AQD Response 5:

Updated Appendix 5-1, Tier 2 testing procedures to remove references to Method 18.

EPA Comment 6:

FGRICEMACT (pages 46-47) appears to permit EUICEENGINE1 and EUICEENGINE2 as a new stationary RICE under 40 CFR Part 63, Subpart ZZZZ. 40 CFR 63.6590(b)(2) states that new stationary RICE with a site rating of more than 500 brake HP located at a major source of HAPs which combusts landfill gas equivalent to 10 percent or more of the gross heat input on an annual basis. As a result, these engines are subject to certain limited requirements, including daily fuel usage recordkeeping requirements at 40 CFR 63.6655(c). However, the permit does not appear to cite this underlying applicable requirement. I request that you incorporate as necessary the recordkeeping requirement at 40 CFR 63.6655(c). If it is already included in the permit, I recommend citing 40 CFR 63.6655(c) to the relevant applicable requirement.

AQD Response 6:

Updated FGRICEMACT, SC VI.1 added UAR "40 CFR 63.6655(c)."

EPA Comment 7:

In addition to the above comments, I found the following minor typographical errors that do not otherwise appear to affect the content of the permit. I request that you verify whether the following requirements are correctly included in the permit.

a. Appendix 7-1, "Calculating expected gas generation flow rates from the landfill" (page 25) appears to cite 40 CFR 60.755(a)(1) as the underlying applicable requirement. I believe this should instead refer to 40 CFR 60.765(a)(1).

b. Appendix 7-1, Equation 4 (page 26): The index of summation should range from i = "1" to n instead of from "I" to n.

c. FGICEENGINES, SC III.1 (page 39) cites 40 CFR 60.752(b)(2)(iii)(C) but should instead cite 40 CFR 60.762(b)(2)(iii)(C).

AQD Response 7:

a. Updated Appendix 7-1 Calculating expected gas generation flow rates from the landfill UAR "40 CFR 60.755(a)(1)" to "40 CFR 60.765(a)(1)."

b. Updated Appendix 7-1 Equation 4 "I" to "1."

c. Updated FGICEENGINES, SC III.1 UAR list to remove "40 CFR 60.752(b)(2)(iii)(C)" because it is not applicable.

Changes to the November 28, 2022 Draft ROP

The following changes were made to the draft ROP in response to comments:

SECTION 1:

Moved conditions in EULANDFILL<34 to a flexible group named FGLANDFILL-XXX<34.

Updated FGLANDFILL-XXX<34, SC V.1 to specify that "… testing must be performed using procedures and calculations as described in Appendices 5-1 and 7-1." These appendices include the test procedures and emission calculations required by 40 CFR 60.764(a). Removed the sentence "an alternate method, or a modification to the approved USEPA method, may be specified in an AQD approved test protocol."

Updated FGLANDFILL-XXX<34, SC V.1.a to specify the "… NMOC mass emission rate must be recalculated annually if the NMOC mass emission rate is less than the standard."

Updated FGLANDFILL-XXX<34, SC V.1.b to specify "… NMOC concentration testing must be performed at least once every five years."

Updated FGLANDFILL-XXX<34, SC V.1.a to note that "if the results are equal to or greater than 34 Mg, then the permittee must move to the next higher tier…" and SC V.1.c. specifies "Tier 3 testing must be performed to establish a site specific methane generation rate constant."

Added a new flexible group named FGLANDFILL-AAAA<50 that contains the applicable requirements for 40 CFR Part 63, Subpart AAAA.

Updated Appendix 5-1, Tier 2 testing procedures to remove references to Method 18. Added the testing procedures referenced in FGLANDFILL-AAAA<50.

Updated Appendix 7-1 Calculating expected gas generation flow rates from the landfill UAR “40 CFR 60.755(a)(1)” to “40 CFR 60.765(a)(1).”

Updated Appendix 7-1 Equation 4 “I” to “1.”

Added to Appendix 7-1, the emission calculations referenced in FGLANDFILL-AAAA<50.

SECTION 2:

Removed in FGICEENGINES, SC III.1 the UAR “40 CFR 60.752(b)(2)(iii)(C)” because it is no longer applicable.

Updated FGRICEMACT, SC VI.1 added UAR “40 CFR 63.6655(c).”

Actions taken by AQD as a result of the November 28, 2022 Draft ROP

Due to the significant changes that have been made throughout the ROP, this ROP will be public noticed for another 30-day public comment period.

Purpose

A Staff Report dated March 13, 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:	Darwin Bass, Director of Public Works 616-632-7919
Responsible Official – Section 2:	Rocky Tondo, North America Head of Project Delivery and Technical Services 616-632-7932
AQD Contact – District Inspector:	Michael Cox, Environmental Quality Analyst 616-240-3607
AQD Contact – ROP Writer:	Matt 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 March 13, 2023 Draft ROP

Typos in Equations 1 and 4 in Appendix 7-1 for calculating “total NMOC emission rate from the landfill” that are pulled from both 40 CFR 60.764(a)(1)(i) and 40 CFR 63.1959(a)(1)(i)(A) were updated to properly reflect the CFR equations. The ROP’s version of these equations had a typo. The equations were updated to reflect “i=1” rather than “i= lowercase L” for both instances where it’s referenced in the permit.

State Registration Number	RENEWABLE OPERATING PERMIT	ROP Number
N1324	December 15, 2023 - STAFF REPORT FOR RULE 216(2) MINOR MODIFICATION	MI-ROP-N1324-2023a

Purpose

On June 5, 2023, the Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), approved and issued Renewable Operating Permit (ROP) No. MI-ROP-N1324-2023 to South Kent Landfill And Energy Developments Byron Center, LLC pursuant to Rule 214 of the administrative rules promulgated under Act 451. Once issued, a company is required to submit an application for changes to the ROP as described in Rule 216. The purpose of this Staff Report is to describe the changes that were made to the ROP pursuant to Rule 216(2).

General Information

Responsible Official:	Section 2 - Rocky Tondo, Head of Project Delivery & Technical Services 330-728-5266
AQD Contact:	Caryn Owens, Senior Environmental Engineer 231-878-6688
Application Number:	202300162
Date Application for Minor Modification was Submitted:	November 15, 2023

Regulatory Analysis

The AQD has determined that the change requested by the stationary source meets the qualifications for a Minor Modification pursuant to Rule 216(2).

Description of Changes to the ROP

Minor Modification Number 202300162 was to incorporate PTI No. 212-08C into Section 2 of the ROP, which is to install a third landfill engine. The proposed engine is a CAT 3520 RICE, same as the existing engines, but is rated at 2,242 bhp, slightly higher than the existing engines.

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements associated with the emission unit(s) involved with the change as of the date of approval of the Minor Modification to the ROP.

Action Taken by EGLE

The AQD proposes to approve a Minor Modification to ROP No. MI-ROP-N1324-2023, as requested by the stationary source. A final decision on the Minor Modification to the ROP will not be made until any affected states and the United States Environmental Protection Agency (USEPA) has been allowed 45 days to review the proposed changes to the ROP. The delegated decision maker for the AQD is the District Supervisor. The final determination for approval of the Minor Modification will be based on the contents of the permit application, a judgment that the stationary source will be able to comply with applicable emission limits and other requirements, and resolution of any objections by any affected states or the USEPA.