

State Registration Number  
N1324

**RENEWABLE OPERATING PERMIT**  
**March 13, 2023 - STAFF REPORT ADDENDUM**

ROP Number  
MI-ROP-N1324-20XX

**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  $"l"$  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 "l" 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 “l” 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.