

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

EFFECTIVE DATE: February 27, 2024

ISSUED TO

Huron Landfill Corporation dba Huron Landfill

State Registration Number (SRN): N6024

LOCATED AT

4151 South McMillan Road, Bad Axe, Huron County, Michigan 48413

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N6024-2024

Expiration Date: February 27, 2029

Administratively Complete ROP Renewal Application
Due Between August 27, 2027 and August 27, 2028

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

Julie Brunner, ROP Central Unit Supervisor

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AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted. **(R 336.1213(5))**
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. **(R 336.1213(5)(a), R 336.1214a(5))**
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. **(R 336.1213(5)(b), R 336.1214a(3))**

General Provisions

1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. **(R 336.1213(1)(a))**
2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. **(R 336.1213(1)(b))**
3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. **(R 336.1213(1)(c))**
4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: **(R 336.1213(1)(d))**
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. **(R 336.1213(1)(e))**

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. **(R 336.1213(1)(f))**
7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. **(R 336.1213(1)(g))**
8. This ROP does not convey any property rights or any exclusive privilege. **(R 336.1213(1)(h))**

Equipment & Design

9. Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2).² **(R 336.1370)**
10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. **(R 336.1910)**

Emission Limits

11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"² **(R 336.1301(1))**
 - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.

12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹ **(R 336.1901(a))**
 - b. Unreasonable interference with the comfortable enjoyment of life and property.¹ **(R 336.1901(b))**

Testing/Sampling

13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² **(R 336.2001)**
14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. **(R 336.2001(2), R 336.2001(3), R 336.2003(1))**
15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. **(R 336.2001(5))**

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. **(R 336.1213(3)(b))**
 - a. The date, location, time, and method of sampling or measurements.
 - b. The dates the analyses of the samples were performed.
 - c. The company or entity that performed the analyses of the samples.
 - d. The analytical techniques or methods used.
 - e. The results of the analyses.
 - f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. **(R 336.1213(1)(e), R 336.1213(3)(b)(ii))**

Certification & Reporting

18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. **(R 336.1213(3)(c))**
19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The annual compliance certification (pursuant to Rule 213(4)(c)) shall be submitted to the USEPA through the USEPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (<https://cdx.epa.gov/>), unless it contains confidential business information then use the following address: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**
20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. **(R 336.1213(4)(c))**
21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. **(R 336.1213(3)(c))**
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**
 - a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
 - b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; “based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete.” The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. **(R 336.1213(3)(c)(i))**
24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. **(R 336.1212(6))**
25. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² **(R 336.1912)**

Permit Shield

26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. **(R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))**
 - a. The applicable requirements are included and are specifically identified in the ROP.
 - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.
27. Nothing in this ROP shall alter or affect any of the following:
 - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. **(R 336.1213(6)(b)(i))**
 - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. **(R 336.1213(6)(b)(ii))**
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. **(R 336.1213(6)(b)(iii))**
 - d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. **(R 336.1213(6)(b)(iv))**

28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
 - a. Operational flexibility changes made pursuant to Rule 215. **(R 336.1215(5))**
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). **(R 336.1216(1)(b)(iii))**
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. **(R 336.1216(1)(c)(iii))**
 - d. Minor Permit Modifications made pursuant to Rule 216(2). **(R 336.1216(2)(f))**
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. **(R 336.1216(4)(e))**
29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. **(R 336.1217(1)(c), R 336.1217(1)(a))**

Revisions

30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. **(R 336.1215, R 336.1216)**
31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). **(R 336.1219(2))**
32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. **(R 336.1210(10))**
33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. **(R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))**

Reopenings

34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
 - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. **(R 336.1217(2)(a)(i))**
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. **(R 336.1217(2)(a)(ii))**
 - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. **(R 336.1217(2)(a)(iii))**
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. **(R 336.1217(2)(a)(iv))**

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. **(R 336.1210(9))**

Stratospheric Ozone Protection

36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
- June 21, 1999,
 - Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - The date on which a regulated substance is first present above a threshold quantity in a process.
40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. **(R 336.1213(12))**

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² **(R 336.1201(1))**
44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² **(R 336.1201(8), Section 5510 of Act 451)**
45. The terms and conditions of a PTI shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI will be amended to reflect the change of ownership or operational control. The request must include all of the information required by Subrules (1)(a), (b) and (c) of Rule 219. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² **(R 336.1219)**
46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² **(R 336.1201(4))**

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EUASBESTOS	This landfill is actively accepting or has accepted asbestos waste in the past.	02-26-1995/ 08-22-2022	FGLANDFILL-XXX<34 FGLANDFILL-AAAA<50
EULANDFILL	A Municipal Solid Waste (MSW) landfill that commenced construction, reconstruction, or modification after July 17, 2014. The MSW landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, and actual NMOC emissions less than 34 megagrams per year. This MSW landfill is subject to the requirements of 40 CFR Part 60, Subpart XXX.	02-26-1995/ 08-22-2022	FGLANDFILL-XXX<34 FGLANDFILL-AAAA<50
EUGASOLINETANK	A split-compartment aboveground storage tank (AST) that contains a 300-gallon compartment containing gasoline. The gasoline is dispensed to on-site vehicles. The monthly throughput will not exceed 10,000 gallons per month.	02-26-1995	FGGASDISPENSING

EUASBESTOS EMISSION UNIT CONDITIONS

DESCRIPTION

This landfill is actively accepting or has accepted asbestos waste in the past.

Flexible Group ID: FGLANDFILL-XXX<34, FGLANDFILL-AAAA<50

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. If the landfill accepts asbestos-containing waste materials from a source covered under 40 CFR 61.149, 40 CFR 61.150, or 40 CFR 61.155, the permittee shall meet the following operational requirements: **(40 CFR 61.154)**
 - a. Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of 40 CFR 61.154(c) or (d) must be met. **(40 CFR 61.154(a))**
 - b. Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of 40 CFR 61.154(c)(1) must be met. **(40 CFR 61.154(b))**
 - i. Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. **(40 CFR 61.154(b)(1))** The warning signs must:
 - (1) Be posted in such a manner and location that a person can easily read the legend. **(40 CFR 61.154(b)(1)(i))**
 - (2) Conform to the requirements of 51 cm by 36 cm (20 inches by 14 inches) upright format signs specified in 29 CFR 1910.145(d)(4) and 40 CFR 61.154(b)(1). **(40 CFR 61.154(b)(1)(ii))**
 - (3) The permittee shall display the legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in 40 CFR 61.154(b)(1). Spacing between any two lines must be at least equal to the height of the upper of the two lines. **(40 CFR 61.154(b)(1)(iii))**
 - ii. The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public. **(40 CFR 61.154(b)(2))**
 - iii. Upon request and supply of appropriate information, the appropriate AQD District Supervisor will determine whether a fence or a natural barrier adequately deters access by the general public. **(40 CFR 61.154(b)(3))**
 - c. Rather than meet the no visible emission requirement of 40 CFR 61.154(a), at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall: **(40 CFR 61.154(c))**

- i. Be covered with at least 15 centimeters (6 inches) of compacted non-asbestos-containing material. **(40 CFR 61.154(c)(1))** or
- ii. Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the appropriate AQD District Supervisor. For purposes of 40 CFR 61.154(c)(2), any used, spent, or other waste oil is not considered a dust suppression agent. **(40 CFR 61.154(c)(2))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The placement of gas collection devices determined in paragraph 40 CFR 60.769(a)(1) and 40 CFR 63.1962(a)(1) must control all gas producing areas, except as provided by 40 CFR 60.769(a)(3)(i) and (a)(3)(ii), and 40 CFR 63.1962(a)(3)(i) and (a)(3)(ii). **(40 CFR 60.769(a)(3), 40 CFR 63.1962(a)(3))**
 - a. Any segregated area of asbestos or non-degradable material may be excluded from collection if documented as provided under 40 CFR 60.768(d) and 40 CFR 63.1983(d). The documentation must provide the nature, date of deposition, location, and amount of asbestos or non-degradable material deposited in the area and shall be provided to the AQD upon request. **(40 CFR 60.769(a)(3)(i), 40 CFR 63.1962(a)(3)(i))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. For all asbestos-containing waste material received, the permittee of the active waste disposal site shall:
 - a. Maintain waste shipment records that include the following information: **(40 CFR 61.154(e)(1))**
 - i. The name, address, and telephone number of the waste generator. **(40 CFR 61.154(e)(1)(i))**
 - ii. The name, address, and telephone number of the transporter(s). **(40 CFR 61.154(e)(1)(ii))**
 - iii. The quantity of the asbestos-containing waste material in cubic meters (cubic yards). **(40 CFR 61.154(e)(1)(iii))**
 - iv. The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report. **(40 CFR 61.154(e)(1)(iv))**
 - v. The date of the receipt. **(40 CFR 61.154(e)(1)(v))**
 - b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator. **(40 CFR 61.154(e)(2))**
 - c. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or USEPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), 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. **(40 CFR 61.154(e)(3))**

2. The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage. **(40 CFR 61.154(f))**
3. The permittee must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in 40 CFR 60.769(a)(3)(i) and 40 CFR 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.769(a)(3)(ii) and 40 CFR 63.1962(a)(3)(ii). **(40 CFR 60.768(d)(2), 40 CFR 63.1983(d)(2))**
4. The permittee shall keep records of one the following regarding any active disposal site where asbestos containing materials have been deposited:
 - a. USEPA Testing Method 22 readings demonstrating no visible emissions from any active disposal site where asbestos containing materials have been deposited. These readings are to be taken for 15 minutes each operating day. **(R 336.1213(3))**
 - b. Records of the date asbestos waste is received, the amount and type of material that has been used to cover the asbestos waste, and documentation that the cover material was applied in the frequency required in SC III.1.c of this table. **(40 CFR 61.154(c))**
 - c. Records pursuant to an alternative emissions control method that has prior written approval of the AQD District Supervisor as noted in SC III.1.d of this table. **(40 CFR 61.154(d))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee shall submit to the appropriate AQD District Supervisor, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities. **(40 CFR 61.154(h))**
5. The permittee shall furnish upon request and make available during normal business hours for inspection by the AQD, all records required by 40 CFR Part 61. **(40 CFR 61.154(i))**
6. Notify the AQD Technical Programs Unit and the appropriate AQD District Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the appropriate AQD District Office at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. **(40 CFR 61.154(j))**

Include the following information in the notice:

- a. Scheduled starting and completion dates. **(40 CFR 61.154(j)(1))**
- b. Reason for disturbing the waste. **(40 CFR 61.154(j)(2))**
- c. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the AQD may require changes in the emission control procedures to be used. **(40 CFR 61.154(j)(3))**
- d. Location of any temporary storage site and the final disposal site. **(40 CFR 61.154(j)(4))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants for Asbestos as specified in 40 CFR Part 61, Subparts A and M. **(40 CFR Part 61, Subparts A and M)**

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGLANDFILL-XXX<34	A MSW landfill that commenced construction, reconstruction, or modification after July 17, 2014. The MSW landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, and actual NMOC emissions less than 34 megagrams per year. This MSW landfill is subject to the requirements of 40 CFR Part 60, Subpart XXX.	EULANDFILL, EUASBESTOS
FGLANDFILL-AAAA<50	A Municipal Solid Waste (MSW) landfill that has accepted waste at any time since November 8, 1987. The MSW landfill has a design capacity greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters, actual NMOC emissions less than 50 Mg per year as calculated according to 40 CFR 63.1959. This MSW landfill is subject to the requirements of 40 CFR Part 63, Subpart AAAA.	EULANDFILL, EUASBESTOS
FGASDISPENSING	This flexible group specifies requirements for a gasoline dispensing facility (GDF) that is subject to 40 CFR Part 63 Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: Gasoline Dispensing Facilities. This flexible group includes existing stationary GDF equipment that was constructed before November 9, 2006, and that have a monthly gasoline throughput less than 10,000 gallons and is located at an area source of hazardous air pollutants. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and includes each storage tank that dispenses gasoline into the fuel tank of a motor vehicle.	EUGASOLINETANK

FGLANDFILL-XXX<34
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

A MSW landfill that commenced construction, reconstruction, or modification after July 17, 2014. The MSW landfill has a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, and actual NMOC emissions less than 34 megagrams per year. This MSW landfill is subject to the requirements of 40 CFR Part 60, Subpart XXX.

Emission Units: EULANDFILL, EUASBESTOS

POLLUTION CONTROL EQUIPMENT

Three (3) solar passive vent flares.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must determine NMOC mass emission rate by testing at owner's expense, in accordance with Department requirements. Testing must be performed using procedures and calculations, as described in Appendices 5 and 7. No less than 30 days prior to testing, the permittee must submit a complete test plan to the AQD Technical Programs Unit and the appropriate AQD District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and the appropriate AQD District Office within 60 days following the last date of the test. **(R 336.2001, R 336.2003, R 336.2004, 40 CFR 60.762(b)(1), 40 CFR 60.764(a))**
 - a. Upon completion of each Tier test, the permittee must compare the results to the NMOC mass emission rate standard of 34 Mg per year. If the results are equal to or greater than 34 Mg, then the permittee must move to the next higher tier in accordance with the following: Tier 1 and Tier 2 NMOC mass emission rate must be recalculated annually if the NMOC mass emission rate is less than the standard. **(40 CFR 60.764(a)(2) and (3))**
 - b. Tier 2 testing to establish a site-specific NMOC concentration must be performed at least once every five years. **(40 CFR 60.764(a)(3))**
 - c. Tier 3 testing must be performed to establish a site-specific methane generation rate constant. **(40 CFR 60.764(a)(4))**

- d. Tier 4 testing to determine surface methane emissions, as described in Appendix 5, may be used if Tiers 1 through 3 testing demonstrate NMOC mass emissions equal to or greater than 34 Mg per year. **(40 CFR 60.764(a)(6))**
 - e. Tier 4 testing must be performed to establish surface methane emissions are below the standard of 500 ppm. **(40 CFR 60.764(a)(6))**
2. Each permittee seeking to use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to methods in Tier 2 and Tier 3 must request and have received approval from USEPA prior to submitting a test protocol to AQD. **(40 CFR 60.764(a)(5))**

See Appendices 5 and 7

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must calculate the annual NMOC emission rates using methods outlined in Appendix 7. **(40 CFR 60.764(a)(1))**
2. The permittee must maintain up-to-date, readily accessible, on-site records of the design capacity report which triggered 40 CFR 60.762(b), the current amount of solid waste in place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. The permittee must keep all records on file in a format acceptable to the AQD District Supervisor and make them available upon request. **(40 CFR 60.768(a))**

See Appendix 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit an annual NMOC emission rate report to the appropriate AQD District Office. This report must contain an annual or 5-year estimate of the NMOC emission rate and all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. **(40 CFR 60.767(b)(1) and (2))**
5. The permittee must submit any performance test reports to the AQD Technical Programs Unit and the appropriate AQD District Office, in a format approved by the AQD. **(R 336.2001(5))**
6. The permittee must submit an initial design capacity report no later than 90 days after the date of commenced construction, modification, or reconstruction. This report must contain the information described in 40 CFR 60.767(a)(2). **(40 CFR 60.767(a)(1) and (2))**
7. The permittee must submit an amended design capacity report providing notification of an increase in the design capacity of the landfill within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. **(40 CFR 60.767(a)(3))**

8. If the permittee elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis and the resulting rate is less than 34 Mg per year, a revised NMOC emission rate report with the recalculated emission rate must be submitted within 180 days of the first calculated exceedance of 34 Mg per year. **(40 CFR 60.767(c)(4)(i))**
9. If the permittee elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, as provided in Tier 3 and the resulting NMOC emission rate is less than 34 Mg per year, a revised NMOC emission rate report and the resulting site-specific methane generation rate constant k must be submitted within 1 year of the first calculated emission rate equaling or exceeding 34 Mg per year. **(40 CFR 60.767(c)(4)(ii))**
10. If the permittee elects to demonstrate that site-specific surface methane emissions are below 500 ppm methane, then the owner or operator must submit annually a Tier 4 surface emissions report. The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 ppm methane. **(40 CFR 60.767(c)(4)(iii))**
11. The permittee must submit a closure report to the appropriate AQD District Office within 30 days of waste acceptance cessation. The AQD may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the AQD, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). **(40 CFR 60.767(e))**
12. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the owner or operator must submit the results of each performance test for data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT Web site (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test. The permittee must submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the USEPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). **(40 CFR 60.767(i))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. If the calculated NMOC emission rate is calculated to be equal to or greater than 34 Mg per year or the methane concentration from the surface of the landfill is 500 ppm or greater, the permittee must install a collection and control system in compliance with 40 CFR 60.762(b)(2). Additionally, within 90 days the permittee must apply for a revision of this permit to reflect applicable requirements of 40 CFR Part 60, Subpart XXX. **(R 336.1216(2), 40 CFR 60.762(b)(1)(ii)(A))**
2. The permittee must comply with all applicable provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60, Subparts A and XXX. **(40 CFR Part 60, Subparts A and XXX)**

**FGLANDFILL-AAAA<50
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

A Municipal Solid Waste (MSW) landfill that has accepted waste at any time since November 8, 1987. The MSW landfill has a design capacity greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters, actual NMOC emissions less than 50 Mg per year as calculated according to 40 CFR 63.1959. This MSW landfill is subject to the requirements of 40 CFR Part 63, Subpart AAAA.

Emission Units: EULANDFILL, EUASBESTOS

POLLUTION CONTROL EQUIPMENT

Three (3) solar passive vent flares.

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. **(40 CFR 63.1955(c))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee shall determine the NMOC mass emission rate utilizing procedures and calculations as described in Appendices 5 and 7 and in accordance with the Department requirements. **(R 336.1213(3), 40 CFR 63.1959(a)(1))**
2. For Tier 2 NMOC emissions determination, no less than 30 days prior to testing, the permittee shall submit a complete test plan to the appropriate AQD District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the appropriate AQD District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.1959(a)(3)(i))**
3. Upon completion of any Tier 1, 2, or 3 NMOC determination, the permittee must compare the results to the NMOC mass emission rate standard of 50 Mg per year. If the results are equal to or greater than 50 Mg per year, then the permittee may perform the next higher tier determination or submit a gas collection and control system design plan within one year as specified in 40 CFR 63.1981(d) and install and operate a gas collection and control system within 30 months according to 40 CFR 63.1959(b)(2)(ii) and (iii). **(40 CFR 63.1959(a)(2)(i and ii), 40 CFR 63.1959(a)(3)(iv), 40 CFR 63.1959(a)(4)(i), 40 CFR 63.1959(b)(1)(ii)(A))**

4. NMOC emission results must be recalculated annually if the NMOC mass emission rate is less than 50 Mg per year. **(40 CFR 63.1959(a))**
5. Tier 2 testing to determine site specific NMOC concentration must be performed at least once every five years when being used to demonstrate the facility NMOC emissions are less than 50 Mg per year. **(40 CFR 63.1959(a)(3)(iii))**
6. Tier 3 testing must be performed to determine a site-specific methane generation rate constant if the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is greater than or equal to 50 Mg/yr. **(40 CFR 63.1959(a)(4))**

See Appendices 5 and 7

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee must calculate the annual NMOC emission rates using methods outlined in Appendices 5 and 7. This shall be performed annually until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg/yr or the landfill is closed. **(40 CFR 63.1959(b)(1)(ii))**
2. Except as provided in 40 CFR 63.1981(d)(2), each MSW landfill subject to the provisions of 40 CFR 63.1959(b)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered 40 CFR 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. **(40 CFR 63.1983(a))**
3. If the landfill is permanently closed, a closure notification shall be submitted to the AQD District Supervisor within 30 days, except for exemption allowed under 40 CFR 63.1981(f). **(40 CFR 63.1959(b)(1)(ii)(B))**

See Appendices 5 and 7

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
4. The permittee must submit an NMOC emission rate report to the Administrator annually following the procedure specified in 40 CFR 63.1981(c)(1)(ii). **(40 CFR 63.1981(c))**
 - a. The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 63.1959(a) or (b), as applicable. **(40 CFR 63.1981(c)(1))**
 - b. The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. **(40 CFR 63.1981(c)(2))**
 - c. If the estimated NMOC emission rate as reported in the annual report is less than 50 Mg per year in each of the next 5 consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided.

This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. **(40 CFR 63.1981(c)(1)(ii)(A))**

5. The permittee must submit reports electronically according to 40 CFR 63.1981(l)(1) and (2) as follows:
 - a. Within 60 days after the date of completing each performance test, the permittee must submit the results of each performance test. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test, submit the results of the performance test to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup using the language (XML) schema listed on the EPA's ERT website, once the XML schema is available. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, include the results of the performance test as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website and submit the ERT generated package or alternative file to the EPA via CEDRI. **(40 CFR 63.1981(l)(1)(i) and (ii))**
 - b. Each permittee must submit reports to the USEPA via the CEDRI (CEDRI can be accessed through the EPA's CDX). The permittee must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the permittee must submit the report to the USEPA at the appropriate address listed in 40 CFR 63.13. Once the form has been available in CEDRI for 90 calendar days, the permittee must begin submitting all subsequent reports via CEDRI. The NMOC emission rate reports, semiannual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. **(40 CFR 63.1981(l)(2))**
6. The permittee shall submit any NMOC test reports to the appropriate AQD District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. If the NMOC emission rate is calculated to be equal to or greater than 50 Mg per year using Tier 1, 2, or 3 procedures, the permittee must either calculate NMOC emissions using the next higher tier procedure or submit a collection and control system design plan within one year as specified in 40 CFR 63.1981(d) and install and operate a gas collection and control system within 30 months according to 40 CFR 63.1959(b)(2)(ii)(B) or (C) and 40 CFR 63.1959(b)(2)(iii). Additionally, within 90 days of determining NMOC emissions are above 50 Mg per year, the permittee shall apply for a revision of this permit to reflect applicable requirements of 40 CFR Part 63, Subpart AAAA. **(R 336.1216(2), 40 CFR 63.1959(a)(2)(i) and (ii))**
2. The permittee is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with 40 CFR 63.1959(b)(2), during such time as the collection and control system is in operation and in compliance with 40 CFR 63.1958 and 40 CFR 63.1960. **(40 CFR 63.1981(c)(3))**
3. The permittee must comply with all applicable provisions of the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as specified in 40 CFR Part 63, Subparts A and AAAA. **(40 CFR Part 63, Subparts A and AAAA)**

**FGGASDISPENSING
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

This flexible group specifies requirements for a gasoline dispensing facility (GDF) that is subject to 40 CFR Part 63 Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories: Gasoline Dispensing Facilities. This flexible group includes existing stationary GDF equipment that was constructed before November 9, 2006, and that have a monthly gasoline throughput less than 10,000 gallons and is located at an area source of hazardous air pollutants. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and includes each storage tank that dispenses gasoline into the fuel tank of a motor vehicle.

Emission Unit: EUGASOLINETANK

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.11115(a))**
2. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
 - a. Minimize gasoline spills. **(40 CFR 63.11117(a), 40 CFR 63.11116(a)(1))**
 - b. Clean up spills as expeditiously as practicable. **(40 CFR 63.11117(a), 40 CFR 63.11116(a)(2))**
 - c. Cover all pen gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use. **(40 CFR 63.11117(a), 40 CFR 63.11116(a)(3))**
 - d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. **(40 CFR 63.11117(a), 40 CFR 63.11116(a)(4))**
3. Gasoline storage tanks with capacities of less than 250 gallons are not required to comply with the submerged fill requirements cited in 40 CFR 63.11117(b) but must comply only with all of the requirements in 40 CFR 63.11116. **(40 CFR 63.11117(c))**
4. If the GDF has a monthly throughput of 10,000 gallons of gasoline or more, you must comply with the requirements in 40 CFR 63.11117. **(40 CFR 63.1111(c))**
5. If the GDF has a monthly throughput of 100,000 gallons of gasoline or more, the permittee must comply with the requirements in 40 CFR 63.11118. **(40 CFR 63.1111(d))**

6. If the GDF's throughput ever exceeds an applicable throughput threshold, the GDF will remain subject to the requirements for sources above the threshold, even if the affected source throughput later falls below the applicable throughput threshold. **(40 CFR 63.11111(i))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee must only load gasoline into storage tanks utilizing submerged filling, as defined in 40 CFR 63.11132, and as specified in 40 CFR 63.11117(b)(1), (2), and (3). The applicable distances in 40 CFR 63.11117(b)(1) and (2) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank. **(40 CFR 63.11117(b))**
 - a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12 inches from the bottom of the tank. **(40 CFR 63.11117(b)(1))**
 - b. Submerged fill pipes installed after November 9, 2006, must be no more than 6 inches from the bottom of the tank. **(40 CFR 63.11117(b)(2))**
 - c. Submerged fill pipes not meeting the specifications listed on 40 CFR 63.11117(b)(1) and (2) are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation for such demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit. **(40 CFR 63.11117(b)(3))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

1. The permittee, upon request by the USEPA Administrator, demonstrate that its monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. **(40 CFR 63.11111(e))**
2. The permittee must have records of the throughput available within 24 hours of a request by the administrator to document facility's gasoline throughput. **(40 CFR 63.11117(d))**
3. The permittee must keep applicable records as specified in 40 CFR 63.11125(d).
 - a. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. **(40 CFR 63.11115(b), 40 CFR 63.11125(d)(1))**
 - b. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.11115(b), 40 CFR 63.11125(d)(2))**

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. **(R 336.1213(4)(c))**

4. The permittee shall submit an initial notification that you are subject to this subpart by May 9, 2008, or no later than 120 days after the facility becomes subject to 40 CFR Part 63, Subpart CCCCCC or at the time the facility becomes subject to the control requirements in 40 CFR 63.11117, unless the facility meets the requirements in SC VII.6 below. The notification must be submitted to the applicable EPA Regional Office and delegated State authority as specified in 40 CFR 63.13. The initial notification must contain the following information: **(40 CFR 63.11117(e), 40 CFR 63.11124(a)(1))**
 - a. The name and address of the owner and the operator.
 - b. The address (i.e., physical location) of the GDF.
 - c. A statement that the notification is being submitted in response to this subpart (Gasoline Distribution Area MACT, 40 CFR Part 63, Subpart CCCCCC) and identifying the requirements in paragraphs (a), (b), and (c)(1) or paragraph (c)(2) of 40 CFR 63.11117 that apply to the facility.
5. The permittee shall submit a Notification of Compliance Status to the applicable USEPA Regional Office and the delegated state authority, as specified in 40 CFR 63.13, in accordance with the schedule specified in 40 CFR 63.9(h), unless the facility meets the requirements in SC VII.6 below. **(40 CFR 63.11124(a)(2))**
6. If, prior to January 10, 2008, facility was operating in compliance with an enforceable State, local, or tribal rule or permit that requires submerged fill as specified in 40 CFR 63.11117(b), the facility is not required to submit an Initial Notification or a Notification of Compliance Status under SC VII.4 or SC VII.5 listed above. **(40 CFR 63.11124(a)(3))**
7. The permittee must submit reports as specified in 40 CFR 63.11126(b). Each owner or operator of an affected source shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. **(40 CFR 63.11126(b))**

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in 40 CFR 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in 40 CFR 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in 40 CFR 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years. **(40 CFR 63.11132)**
2. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart CCCCCC, for Gasoline Dispensing Facilities. **(40 CFR Part 63, Subparts A and CCCCCC)**

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

APPENDICES

Appendix 1. Acronyms and Abbreviations

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/ department	Michigan Department of Environment, Great Lakes, and Energy	gr	Grains
EGLE	Michigan Department of Environment, Great Lakes, and Energy	HAP	Hazardous Air Pollutant
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallons of Applied Coating Solids	HP	Horsepower
GC	General Condition	H ₂ S	Hydrogen Sulfide
GHGs	Greenhouse Gases	kW	Kilowatt
HVLP	High Volume Low Pressure*	lb	Pound
ID	Identification	m	Meter
IRSL	Initial Risk Screening Level	mg	Milligram
ITSL	Initial Threshold Screening Level	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	NMOC	Non-methane Organic Compounds
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	ng	Nanogram
NA	Not Applicable	PM	Particulate Matter
NAAQS	National Ambient Air Quality Standards	PM10	Particulate Matter equal to or less than 10 microns in diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	%	Percent
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SDS	Safety Data Sheet	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
VE	Visible Emissions	µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3. Monitoring Requirements

Specific monitoring requirement procedures, methods or specifications are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 4. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5. Testing Procedures

A. The permittee shall use the following approved procedures, to measure the pollutant emissions for the applicable requirements referenced in FGLANDFILL-XXX<34.

Tier 1

The permittee must calculate NMOC mass emission rate utilizing Equation 1 or 2 in Appendix 7, as applicable, and compare it to the standard of 34 Mg per year. (40 CFR 60.764(a)(2))

Tier 2

The permittee must determine the NMOC concentration using the following sampling procedure:

The permittee must install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste.

The permittee must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using 40 CFR Part 60, Appendix A, Methods 25 or 25C. 40 CFR Part 60, Appendix A, Method 18 may be used to analyze the samples collected by Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes.

If using Method 18, the permittee must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to CNMOC as hexane by multiplying by the ratio of its carbon atoms divided by six. If more than the required number of samples is taken, all samples must be used in the analysis.

The permittee must divide the NMOC concentration from 40 CFR Part 60, Method 25 or 25C by six (6) to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two-sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.

The permittee must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 in Appendix 7 using the average site-specific NMOC concentration from the collected samples. The permittee must compare results to the standard of 34 Mg per year. **(40 CFR 60.764(a)(3))**

Tier 3

The site-specific methane generation rate constant must be determined using the procedures provided in 40 CFR Part 60, Appendix A, Method 2E. The permittee must estimate the NMOC mass emission rate using **Equation 1** (40 CFR 60.764(a)(1)(i)) or **Equation 2** (40 CFR 60.764(a)(1)(ii)) and using a site-specific methane generation rate constant (k), and the site-specific NMOC concentration as determined in 40 CFR 60.764(a)(3) instead of the default values provided in 40 CFR 60.764(a)(1). The permittee must compare the resulting NMOC mass emission rate to the standard of 34 Mg per year. **(40 CFR 60.764(a)(4))**

Tier 4

The permittee must demonstrate that surface methane emissions are below 500 ppm. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used.

The permittee must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.765(d). The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

Surface emission monitoring (SEM) must be performed in accordance with 40 CFR Part 60, Appendix A, Section 8.3.1 of Method 21 except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except, the owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM, and must be placed on the ground, to ensure wind turbulence is blocked. SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in 40 CFR 60.765(d).

Each owner or operator seeking to comply with the Tier 4 provisions must maintain records of surface emission monitoring as provided in 40 CFR 60.768(g) and submit a Tier 4 surface emissions report as provided in 40 CFR 60.767(c)(4)(iii).

If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 ppm or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section.

If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 ppm or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring.

If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria: **(40 CFR 60.764(a)(6)(vii))**

- (A) The gas collection and control system must have operated for 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.

(B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.

B. The permittee must use the following approved procedures, to measure the pollutant emissions for the applicable requirements referenced in FGLANDFILL-AAAA<50. **(40 CFR 63.1959(a))**

Tier 1

The permittee must calculate NMOC mass emission rate utilizing Equation 1 or 2 in Appendix 7, as applicable, and compare it to the standard of 50 Mg per year. **(40 CFR 63.1959(a)(2))**

Tier 2

The permittee must determine the site-specific NMOC concentration using the following sampling procedure. The permittee must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste.

The permittee must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using 40 CFR Part 60, Appendix A-7, Methods 25 or 25C. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples is taken, all samples must be used in the analysis. The permittee must divide the NMOC concentration from 40 CFR Part 60, Appendix A-7, Method 25 or 25C by six (6) to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two-sampling probes per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three (3) samples must be collected from the header pipe. **(40 CFR 63.1959(a)(3))**

Tier 3

The site-specific methane generation rate constant must be determined using the procedures provided in 40 CFR Part 60, Appendix A-1, Method 2E. The permittee must estimate the NMOC mass emission rate using **Equation 1** (40 CFR 63.1959(a)(1)(i)) or **Equation 2** (40 CFR 63.1959(a)(1)(ii)) and using a site-specific methane generation rate constant (k), and the site-specific NMOC concentration as determined in 40 CFR 63.1959(a)(3) instead of the default values provided in 40 CFR 63.1959(a)(1). The permittee must compare the resulting NMOC mass emission rate to the standard of 50 Mg per year. **(40 CFR 63.1959(a)(4))**

Appendix 6. Permits to Install

At the time of permit issuance, no Permits to Install have been incorporated into this ROP or any previous ROP. Therefore, this appendix is not applicable.

Appendix 7. Emission Calculations

A. The permittee must use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGLANDFILL-XXX<34.

Default Values

The permittee must calculate the NMOC emission rate using either **Equation 1** (the equation provided in 40 CFR 60.764(a)(1)(i)) or **Equation 2** (the equation provided in 40 CFR 60.764(a)(1)(ii)). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in **Equation 1** (40 CFR 60.764(a)(1)(i)), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in **Equation 2** (the equation provided in 40 CFR 60.764(a)(1)(ii)), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per Mg for L_o, and 4,000 ppm by volume as hexane for the C_{NMOC}. For landfills located in geographical areas with a thirty-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year. **(40 CFR 60.764(a)(1))**

Equation 1

The following equation must be used if the actual year-to-year solid waste acceptance rate is known. **(40 CFR 60.764(a)(1)(i))**

$$M_{NMOC} = \sum_{i=1}^n 2 k L_o M_i (e^{-k t_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, Mg per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per Mg solid waste

M_i = mass of solid waste in the ith section, Mg

t_i = age of the ith section, years

C_{NMOC} = concentration of NMOC, ppmv as hexane

3.6 × 10⁻⁹ = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

Equation 2

The following equation must be used if the actual year-to-year solid waste acceptance rate is unknown. **(40 CFR 60.764(a)(1)(ii))**

$$M_{NMOC} = 2 L_o R (e^{-k c} - e^{-k t}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, Mg per year

L_o = methane generation potential, cubic meters per Mg solid waste

R = average annual acceptance rate, Mg per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, ppmv as hexane

c = time since closure, years; for active landfill c = 0 and e^{-k c} = 1

3.6 × 10⁻⁹ = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.

Tier 1

The permittee must calculate NMOC mass emission rate utilizing Equation 1 or 2 in **Appendix 7**, as applicable, and compare it to the standard of 34 Mg per year. **(40 CFR 60.764(a)(2))**

Tier 2

The permittee must recalculate the NMOC mass emission rate using the **Equation 1** or **Equation 2** in **Appendix 7** and using the average NMOC concentration from the collected samples (**Tier 2** testing in **Appendix 5**) instead of the default value in the equation provided in 40 CFR 60.764(a)(1). **(40 CFR 60.764(a)(3)(i))**

If the resulting **Tier 2** NMOC mass emission rate is less than 34 Mg per year, the permittee must submit a periodic estimate of NMOC emissions in an NMOC emission rate report as provided in 40 CFR 60.767(b)(1) and must recalculate the NMOC mass emission rate annually as required under 40 CFR 60.762(b). The site-specific NMOC concentration must be retested every 5 years. **(40 CFR 60.764(a)(3)(iii))**

If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 Mg per year, then the permittee must either:

1. Comply with 40 CFR 60.767(c) (submit a gas collection and control system design plan prepared by a professional engineer within 1 year); **(40 CFR 60.764(a)(3)(iv)(A))** or
2. Determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in **Tier 3** (40 CFR 60.764(a)(4); **(40 CFR 60.764(a)(3)(iv)(B))**) or
3. Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in 40 CFR 60.764(a)(6). **(40 CFR 60.764(a)(3)(iv)(C))**

Tier 3

If the NMOC mass emission rate is less than 34 Mg per year, then the permittee must submit a periodic emission rate report as provided in 40 CFR 60.767(b)(1) and must recalculate the NMOC mass emission rate annually, as provided in 40 CFR 60.767(b)(1) using **Equation 1** or **Equation 2**, and using the site-specific methane generation rate constant (**Tier 3**) and NMOC concentration (**Tier 2**) obtained in 40 CFR 60.764(a)(3). The calculation of the methane generation rate constant (**Tier 3**) is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations. **(40 CFR 60.764(a)(4)(ii))**

Calculating expected gas generation flow rates from the landfill

For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 40 CFR 60.762(b)(2)(ii)(A)(1), either **Equation 3** or **Equation 4**, below, must be used. The k and L_0 kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in 40 CFR 60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure. **(40 CFR 60.765(a)(1))**

If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, **Equation 3** or **Equation 4**. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using **Equation 3** or **Equation 4** or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment. **(40 CFR 60.765(a)(1)(ii))**

Equation 3

For sites with unknown year-to-year solid waste acceptance rate:

$$Q_m = 2L_0 R (e^{-kc} - e^{-kt})$$

Where:

Q_m = maximum expected gas generation flow rate, cubic meters per year

L_o = methane generation potential, cubic meters per Mg solid waste

R = average annual acceptance rate, Mg per year

k = methane generation rate constant, year⁻¹

t = age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years

c = time since closure, years (for an active landfill $c = 0$ and $e^{-kc} = 1$)

Equation 4

For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^n 2 k L_o M_i (e^{-kt_i})$$

Where,

Q_M = maximum expected gas generation flow rate, cubic meters per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per Mg solid waste

M_i = mass of solid waste in the i th section, Mg

t_i = age of the i th section, years

- B. The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGLANDFILL-AAAA<50.

Default Values

The permittee must calculate the NMOC emission rate using either **Equation 1** (the equation provided in 40 CFR 63.1959(a)(1)(i)(A)) or **Equation 2** (the equation provided in 40 CFR 63.1959(a)(1)(ii)(A)). Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in **Equation 1** (40 CFR 63.1959 (a)(1)(i)(A)), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in **Equation 2** (the equation provided in 40 CFR 63.1959 (a)(1)(ii)(A)), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k , 170 cubic meters per megagram for L_o , and 4,000 ppm by volume as hexane for the C_{NMOC} . For landfills located in geographical areas with a thirty-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year. **(40 CFR 63.1959(a)(1))**

Equation 1

The following equation must be used if the actual year-to-year solid waste acceptance rate is known. **(40 CFR 63.1959(a)(1)(i)(A))**

$$M_{NMOC} = \sum_{i=1}^n 2 k L_o M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Total NMOC emission rate from the landfill, megagrams per year

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, cubic meters per megagram solid waste

M_i = mass of solid waste in the i^{th} section, megagrams

t_i = age of the i^{th} section, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for M_i if documentation of the nature and amount of such wastes is maintained.

Equation 2

The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown. **(40 CFR 63.1959 (a)(1)(ii)(A))**

$$M_{NMOC} = 2L_o R (e^{-kc} - e^{-kt}) (C_{NMOC}) (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = mass emission rate of NMOC, megagrams per year

L_o = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year⁻¹

t = age of landfill, years

C_{NMOC} = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years; for active landfill $c = 0$ and $e^{-kc} = 1$

3.6×10^{-9} = conversion factor

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R , if documentation of the nature and amount of such wastes is maintained.

Tier 1

The permittee must calculate NMOC mass emission rate utilizing Equation 1 or 2 in **Appendix 7**, as applicable, and compare it to the standard of 50 Mg per year. **(40 CFR 63.1959(a)(1)(ii)(A) and (a)(2))**

If the resulting **Tier 1** calculated NMOC mass emission rate is less than 50 Mg per year, the permittee must submit annually an estimate of NMOC emissions in an NMOC emission rate report as provided in 40 CFR 63.1981(c) and must recalculate the NMOC mass emission rate annually as required under 40 CFR 63.1959(b). **(40 CFR 63.1959(a)(2)(i))**

If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 50 Mg per year, then the permittee must either:

1. Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr according to 40 CFR 63.1959(b)(2)(ii) and (iii). **(40 CFR 63.1959(a)(2)(ii)(A))**
2. Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using **Tier 2** procedures (40 CFR 63.1959(a)(3)). **(40 CFR 63.1959(a)(2)(ii)(B))**, or

3. Determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the procedure specified in **Tier 3** procedures (40 CFR 63.1959(a)(4)). **(40 CFR 63.1959(a)(2)(ii)(C))**

Tier 2

The permittee must recalculate the NMOC mass emission rate using **Equation 1** or **Equation 2** in **Appendix 7** and using the average site-specific NMOC concentration from the collected samples (**Tier 2** testing in **Appendix 5**) instead of the default value in the equation provided in 40 CFR 63.1959(a)(1). **(40 CFR 63.1959(a)(3)(ii))**

If the resulting **Tier 2** NMOC mass emission rate is less than 50 Mg per year, the permittee must submit a periodic estimate of NMOC emissions in an NMOC emission rate report as provided in 40 CFR 63.1981(c) and must recalculate the NMOC mass emission rate annually as required under 40 CFR 63.1959(b). The site-specific NMOC concentration must be retested every 5 years. **(40 CFR 63.1959(a)(3)(iii))**

If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 50 Mg per year, then the permittee must either:

1. Submit a gas collection and control system design plan within 1 year as specified in 40 CFR 63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr according to 40 CFR 63.1959(b)(2)(ii) and (iii). **(40 CFR 63.1959(a)(3)(iv)(A))** or
2. Determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in **Tier 3** (40 CFR 63.1959(a)(4)). **(40 CFR 63.1959(a)(3)(iv)(B))**

Tier 3

The site-specific methane generation rate constant must be determined using the procedures provided in 40 CFR Part 60, Appendix A-1, Method 2E. The permittee must estimate the NMOC mass emission rate using **Equation 1** (40 CFR 63.1959(a)(1)(i)) or **Equation 2** (40 CFR 63.1959(a)(1)(ii)) and using a site-specific methane generation rate constant (k), and the site-specific NMOC concentration as determined in 40 CFR 63.1959(a)(3) instead of the default values provided in 40 CFR 63.1959(a)(1). The permittee must compare the resulting NMOC mass emission rate to the standard of 50 Mg per year. **(40 CFR 63.1959(a)(4))**

If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 50 Mg per year, the permittee must submit a gas collection and control system design plan within 1 year as specified in 40 CFR 63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr according to 40 CFR 63.1959(b)(2)(ii) and (iii).. **(40 CFR 63.1959(a)(4)(i)(A))**

If the NMOC mass emission rate is less than 50 Mg per year, then the permittee must recalculate the NMOC mass emission rate annually, using **Equation 1** or **Equation 2** in **Appendix 7**, and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in 40 CFR 63.1981(c). The calculation of the methane generation rate constant (**Tier 3**) is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations. **(40 CFR 63.1959(a)(4)(ii))**

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.