AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT

DOCKET # 24-045-0208

COMPANY: Newland Park Landfill

LOCATION: 6948 Brick Kiln Rd
Salisbury, MD 21801

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TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

Public Participation Process

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

Applicant Objection to Permit Issuance and Recourse

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating permit, the applicant has 15 days from receipt of the issued permit to request a contested case hearing. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION

NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a Renewal Part 70 Operating Permit submitted by the Newland Park Landfill located in Salisbury, MD. The facility includes the municipal solid waste (MSW) landfill, a landfill gas flare system, and horizontal grinders.

The applicant is represented by:

Mr. Adam N. Corry, LEHS
Deputy Director, Wicomico County Public Works
125 N. Division Street
Salisbury, MD 21803

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the application, draft permit, and supporting documentation is available for review on the Department's website, under the Air Quality Permitting Page's Title V link under "Draft Title V Permits" and may be viewed here:

https://tinyurl.com/DraftTitleV

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

1) The name, mailing address, and telephone number of the person making the request;

2) The names and addresses of any other persons for whom the person making the request if representing; and

3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey via email at Shannon.heafey@maryland.gov or by post at Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720. Further information may be obtained by calling Ms. Shannon Heafey at (410) 537-4433.

PART 70 OPERATING PERMIT FACT SHEET
NEWLAND PARK LANDFILL
6948 BRICK KILN ROAD
SALISBURY, MD 21801
DRAFT PART 70 OPERATING PERMIT NO. 24-045-00208

BACKGROUND

Newland Park Landfill (NPL) is a municipal solid waste (MSW) landfill located at 6948 Kiln Road, Salisbury, Maryland, serving Wicomico County. The facility is owned and operated by the Wicomico County Department of Public Works (WC-DPW). The landfill opened in 1960 and began accepting and landfilling MSW. Up to the year 2023, the landfill has accepted approximately 4,184,473 tons of waste. The SIC code for the landfill is 4953.

The landfill property covers 180 acres, of which 95 acres are now or have been used for the collection of waste. Landfill gas is gathered by a voluntary active gas collection system, which is either sent to the existing flare or to the landfill gas to energy plant (LFGTE) operated by Ingenco. Wicomico County received an air quality permit to construct on July 26, 2000 to construct a series of additional flares to combust landfill gas. However, since 2002 the landfill constructed and operates a landfill gas flare (MDE Registration No. 9-0082) by LFG Specialties, Inc (Model PCF 61816).

A landfill is automatically subject to Part 70 operating permit requirements, if it has a design capacity of at least 2.75 million tons, regardless of whether it is a major stationary source. Since the Newland Park Landfill has a design capacity of 6.24 million tons, it is therefore, subject to the Title V permitting requirements.

The NSPS requirements apply to a MSW landfill that commenced construction, reconstruction or modification or began accepting waste on or after May 30, 1991. The Newland Park landfill received authorization for an expansion as part of a redesign which took place in 1993; therefore, it is subject to the NSPS requirements. As an NSPS landfill with a maximum design capacity equal to or greater than 2.5 million megagrams or 2.75 million tons, the Permittee can either install a landfill gas collection and control system and comply with the testing, monitoring, record keeping, and reporting requirements, or calculate the landfill's NMOC emission rate using the three-tier approach. If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to § 62.16724(c) and must recalculate the NMOC mass emission rate annually as required under § 62.16714(e). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section. If the calculated NMOC emissions are equal to or greater than 34 megagrams per year (Mg/yr), the Permittee is required to install a landfill gas collection and control system and comply with the testing, monitoring, record keeping, and reporting requirements.

EPA promulgated national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills- 40 CFR Part 63 - Subpart AAAA. NPL is subject to these MACT requirements because it is a MSW landfill that has accepted waste since November 8, 1987 and is an area source landfill that has a design capacity equal to or greater than 2.5 million cubic meters that was not permanently closed as of January 16, 2003. NPL must comply with the MACT requirements, if the facility NMOC emissions exceed 50 Mg/year.

The Permittee conducted a Tier 2 NMOC testing on July 28 thru 30, 2020. The site-specific NMOC concentration was determined to be 200 ppm expressed as hexane. Using the method outlined in 40 CFR 60.754, and progressively increasing waste placement, the facility estimated yearly NMOC generation rate ranging from 18.9 Megagrams (Mg) in 2020 to 23.1 Megagrams (Mg) in 2025. The facility will be required to perform another Tier 2 testing (within 5 years during the term) of the renewed Part 70 Permit to demonstrate that it is still below the threshold. The primary air emissions sources at the NPL are the landfill, the flare, and two (2) diesel-powered horizontal grinders.

The Compliance Assurance Monitoring (CAM) Rule 40 CFR Subpart 64 is not applicable because Newland Park Landfill is subject to an emissions limitation that was proposed by the EPA administrator after November 15, 1990 pursuant to Section 111 or 112 of the Clean Air Act (specifically the facility is subject to the Emissions Guidelines for Municipal Solid Waste Landfills – 40 CFR Subpart Cc).

The current Title V permit for NPL expired on March 31, 2024. On April 4, 2023, the Department received a Part 70 renewal permit application for the Newland Park Landfill. An administrative completeness review was conducted, and the application was deemed to be complete. The completeness determination letter was sent on April 11, 2023, granting the facility an application shield.

The following Table 1 and Table 2 summarize the actual emissions, in tons per year (TPY) from Newland Park Landfill based on its annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)
2022	8.87	0.19	14.71	4.46	2.77
2021	7.44	0.16	14.65	3.20	3.48
2020	9.72	0.19	14.72	3.95	2.30
2019	7.48	0.13	14.62	1.98	2.21
2018	8.35	0.18	14.68	2.70	2.44

The following table summarizes the non-methane organic compound (NMOC) estimates for the years 2023-2027, as shown in the Title V application.

Table 2: Summary of projected NMOC generation rates*

Year	NMOC (Mg/yr)
2023	17.91
2024	18.41
2025	18.90
2026	19.37
2027	19.82

*NMOC emissions are calculated using default values found in AP-42 (100 m^3/Mg for L_o and 0.04 yr^{-1} for k) for the LandGEM model.

Wicomico County is located in Area VI, which is classified as an ozone attainment area. The major source thresholds for triggering Title V permitting for this area under Part 70 rules are the potential to emit 50 TPY of VOC, 10 TPY of any single HAP, 25 TPY of any combination of HAPs, or 100 TPY of any other criteria pollutant.

MACT

EPA promulgated national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills- 40 CFR Part 63- Subpart AAAA. The NPL is subject to these MACT requirements because it is an MSW landfill that has accepted waste after November 8, 1987 and is an area source landfill that has a design capacity equal to or greater than 2.5 million cubic meters that was not permanently closed as of January 16, 2003. The NPL must comply with the MACT requirements when facility emissions exceed 50 Mg/year.

CAM Analysis

Newland Park Landfill conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that the facility is not subject to the CAM Rule 40 CFR Subpart 64. CAM is not applicable because the NPL is subject to an emissions limitation that was proposed by the EPA administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act (specifically the facility is subject to the Emissions Guidelines for Municipal Solid Waste Landfills - 40 CFR Subpart Cc).

GREENHOUSE GAS (GHG) EMISSION STATEMENT

Newland Park Landfill emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide and methane. These GHGs originate from various processes (i.e., waste decomposition and landfill gas fugitives) contained within the facility premises applicable to NPL. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. As a brand new facility, GHGs were based on emission estimates using default data entered in the US EPA LandGEM model, version 3.02 (see Table 3 shown below). Future emission certifications will show more accurate levels once site specific data are gathered in the future years. Furthermore, the Permittee shall quantify facility-wide GHG emissions and report them in accordance with Section 3 of the Part 70 permit.

The following table summarizes the actual GHG emissions from Newland Park Landfill submitted through emission certification reports:

Table 3: Actual GHG Emissions Summary

Year	CO_2 (TPY)	CH_4 (TPY)	N_2O (TPY)
2022	9,552	1,905	<0.01
2021	10,383	2,479	<0.01
2020	8,320	1,527	<0.01
2019	7,614	1,459	<0.01
2018	8,754	1,651	0.01

*CO_2 value for 2022 taken from 'Revised' form 6.

EMISSION UNIT IDENTIFICATION

Municipal solid waste (MSW) landfills produce a large volume of gas that consists primarily of methane and carbon dioxide. Landfill gas also contains water vapor and a small amount of non-methane organic compounds (NMOC). The NMOC include Hazardous Air Pollutants (HAPs), odorous compounds, and Volatile Organic Compounds (VOCs), which are photochemically reactive and contribute to summertime ozone formation, which can result in adverse effects to human health and vegetation.

Particulate matter emissions can be generated in the form of fugitive dust created by landfill operations and mobile sources, such as garbage trucks traveling along paved and unpaved surfaces.

The Newland Park Landfill has identified the following emission units as being subject to the Title V permitting requirements and having applicable requirements.

Table 4: Emission Unit Identification

Emissions Unit Number	MDE Registration Number	Emissions Unit Description	Date of Installation
EU-01	9-0208	Active municipal solid waste landfill with a design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system.	Began operation 1960
EU-02	9-0082	Landfill gas flaring system.	July 2000 Modified 2010
EU-03	9-0202	One (1) horizontal grinder powered by a 755 Hp diesel engine.	April 9, 2024
EU-04	9-0186	One (1) horizontal grinder powered by a 755 Hp diesel engine.	December 19, 2018

AN OVERVIEW OF THE PART 70 PERMIT

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY AND TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Emission Unit: EU-1

One (1) active 180-acre municipal solid waste landfill with a maximum design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system, and sent to a flaring system.

MDE Registration No. 9-0208

Applicable Standards and Limits

1. The New Source Performance Standard (NSPS) for Landfills (40 CFR §62 Subpart OOO) only requires the Newland Park Landfill to calculate NMOC emissions until calculations show emissions to be equal to or greater than 34 megagrams (37 tons) per year:

Newland Park Landfill is subject to the testing, record keeping, and reporting requirements indicated below.

"If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to § 62.16724(c) and must recalculate the NMOC mass emission rate annually as required under § 62.16714(e). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section. **[Reference: 40 CFR §62.16718(a)(3)(iii)]**

The Permittee shall keep all the records required under this permit for at least five (5) years and shall make such records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

If the Permittee increases the maximum design capacity of the Quarantine Road Landfill after November 1, 1997, the Permittee shall amend and resubmit the design capacity report within 90 days of the issuance of an air quality Permit to Construct or a permit from the MDE Land Management Administration that authorizes the increase or any other change that increases the maximum design capacity of the landfill. **[Reference: 40 CFR§62.16724(a)]**

The Permittee shall estimate the annual NMOC emission rate calculated using the formula and procedures as described in 40 CFR §62.16724(c). **[Reference: 40 CFR§62.16724(c)]**

The Permittee may, upon approval by the Department, submit a combined report to satisfy the NMOC reporting requirements and the annual Emissions Certification requirements. **[Reference: 40 CFR§62.16724(a)&(c)]**

1A. The Newland Park Landfill will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams (37 tons) per year or more:

A. <u>Standards for Air Emissions</u>

<u>Standards for municipal solid waste landfill emissions</u> – [40 CFR 62.16714]

"The owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must either install a collection and control system as provided in paragraphs (b) and (c) of this section or calculate an initial NMOC emission rate for the landfill using the procedures specified in § 62.16718(a). The NMOC emission rate must be recalculated annually, except as provided in § 62.16724(c)(3).

(1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must:

(i) Submit an annual NMOC emission rate report according to § 62.16724(c), except as provided in § 62.16724(c) (3); and

(ii) Recalculate the NMOC emission rate annually using the procedures specified in § 62.16724(a) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed.

(A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (e)(1)(ii) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraphs (b) and (c) of this section; calculate NMOC emissions using the next higher tier in § 62.16718; or conduct a surface emission monitoring demonstration using the procedures specified in § 62.16718(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided in § 62.16724(f), except for exemption allowed under § 62.16711(g)(4).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in § 62.16724(d), except for exemptions allowed under § 62.16711(g)(3); calculate NMOC emissions using a higher tier in § 62.16718; or conduct a surface emission monitoring demonstration using the procedures specified in § 62.16718(a)(6)."

Particulate Matter from Materials Handling and Construction

"The Permittee shall not cause or allow any material to be handled, transported, or stored; or a building, its appurtenances; or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne." **[Reference: COMAR 26.11.06.03D(2)]**

Compliance Demonstration
[Reference: 40 CFR 62.16718 and 62.16720]
To comply with the testing requirements, the Permittee shall use the methods specified in §62.16720(a)(1) through (6) to determine whether the gas collection system is in compliance with the requirements for an active collection system in §62.16714(b)(2). **[Reference: 40 CFR 62.16720(a)]** To comply with the monitoring requirements, the Permittee shall operate and monitor the gas system in accordance with 40 CFR 62.16722, and the permit condition listed in Section IV.1.3.B. **[Reference: 40 CFR 62.16722]** To comply with Record Keeping requirements, the Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location for each collector as specified in §62.16726(d)(1) and (2). **[Reference: 40 CFR 62.16726(d)] Also, the P**ermittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in §62.16726(b)(1) as measured during the initial performance test. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. **[Reference: 40 CFR 62.16726(b)]** To comply with Reporting requirements, the Permittee shall follow the procedures listed in Section 1A.5, "Reporting Requirements, Standards for Air Emissions." **[Reference: 40 CFR 62.16724(g), and 40 CFR 62.16724(f)]**

B. Operational Standards

[Reference: 40 CFR 62.16716]

(1) The Permittee shall operate the gas collection and control system such that landfill gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active; or 2 years or more if closed or at final grade. **[Reference: 40 CFR 62.16714(b)(2)(ii) and 62.16716(a)]**

(2) The Permittee shall operate the collection system with negative pressure at each wellhead except under the conditions specified in §62.16716(b)(1) - (3). **[Reference: 40 CFR 62.16716(b)]**

(3) The Permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55° C. The Permittee may establish a higher operating temperature at a particular well as provided for in §62.16716(c). **[Reference: 40 CFR 62.16716(c)]**

(4) The Permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the Permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill as provided for in §62.16716(d). **[Reference: 40 CFR 62.16716(d)]**

(5) In the event the collection or control system is not operating, the Permittee shall shut down the gas mover system and shall close, within one hour, all valves in the collection and control system contributing to venting of the gas to the atmosphere. **[Reference: 40 CFR 62.16716(e)]**

(6) The Permittee shall operate the control system at all times when the collected gas is routed to the system. **[Reference: 40 CFR 62.16716(f)]**

(7) The Permittee must take corrective actions if the requirements in §62.16720(a)(3) and (5) or §62.16720(c) of 40 CFR 62, Subpart OOO if monitoring demonstrates that the operational requirements in §62.16716(b), (c), or (d) are not met. If corrective actions are taken as specified in §62.16720, the monitored exceedance is not a violation of the operational requirements in §62.16716. **[Reference: 40 CFR 62.16716(g)]**

(8) The Permittee shall take reasonable precautions, including the application of water on unpaved roads and other surfaces, to prevent particulate matter from becoming airborne. **[Reference: COMAR 26.11.06.03D(2)]**

Compliance Demonstration

The Permittee shall demonstrate compliance with the testing requirements by following the procedures listed under the Section 1.3.B "Monitoring Requirements." Also, the nitrogen and oxygen level shall be determined as prescribed in 40 CFR 62.16722(a)(2). **[Reference: 40 CFR 62.16722(a)(2)]** The monitoring requirements should be implemented following the recommendations stated in the Section 1.3.B "Operational Standards." **[Reference: 40 CFR 62.16720 thru 16722]** To comply with Record Keeping requirements, the Permittee shall follow the procedures listed in Section 1.4.B, "Record Keeping Requirements, Standards for Air Emissions." **[Reference: 40 CFR 62.16716(b)(1), 16726(c) and 16726(e)]** To comply with Reporting requirements, the Permittee shall follow the procedures listed in Section 1.5.B, "Reporting Requirements, Standards for Air Emissions." **[Reference: 40 CFR 62.16724(h)]**

C. Other Requirements

The provisions of this subpart apply at all times, including periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in § 62.16716(e) in lieu of the compliance provisions in § 62.16720. **[Reference: 40 CFR 62.16720(e)]**

Compliance Demonstration

The Permittee shall demonstrate compliance with the testing requirements by following the procedures listed under Record Keeping and Reporting Requirements in Section 1A.4 and 1A.5. The monitoring requirements should be implemented following the recommendations listed under Record Keeping and Reporting Requirements in Section 1A.4 and 1A.5. Record Keeping requirements are listed in Section 1.4A. as, "(1) Except as provided in §62.16724(d)(2), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered §62.16714(e), 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. **[Reference: 40CFR 62.16726(a)]** (2) Except as provided in §62.16724(d)(2), the Permittee shall keep for 5 years up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. **[Reference: 40 CFR 62.16726(c)]**

(3) The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock and- key configurations used to seal bypass lines, specified under §62.1672. **[Reference: 40 CFR 62.16726(c)(2)]**

To comply with reporting requirements, the Permittee shall submit an annual NMOC emission rate report to the Administrator. The report is due on the anniversary of the Permittee's initial submittal of the NMOC report as required in 40 CFR 62.16724(c). **[Reference: 40 CFR 62.16724(c)]**

1B. Subpart AAAA – National Emission Standard for Hazardous Air Pollutants: Municipal Solid Waste Landfills. Maximum Achievable Control Technology (MACT)

The Newland Park Landfill will be subject to the following requirements, if it has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (M3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) or its equivalent of 55 tons/yr NMOC as calculated in accordance with 40 CFR §60.754:

Applicability

"You are subject to this subpart if you own or operate a MSW landfill that has accepted since November 8, 1987 or has additional capacity for waste disposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section: (3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to §60.754(a) of the MSW landfills new source performance standards in 40 CFR part 60, subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan that applies to your landfill." **[Reference: 40.CFR §63.1935(a)(3)]**

"If your landfill is an existing affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements in §§63.1955(b) and 63.1960 through 63.1980 by the date your landfill is required to install a collection and control system by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or EPA approved and effective State or tribal plan that applies

to your landfill or by January 16, 2004, whichever occurs later." **[Reference: 40.CFR §63.1945(f)]**

Standards
"If you are required by 40 CFR 60.752(b)(2) of subpart WWW, the Federal plan, or an EPA approved and effective State or tribal plan to install a collection and control system, you must comply with the requirements in §§63.1960 through 63.1985 and with the general provisions of this part specified in table 1 of this subpart." **[Reference: 40.CFR §63.1955(b)]**

General and Continuing Compliance Requirements
"Compliance is determined in the same way it is determined for 40 CFR Part 60, subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR 60.756(b)(1), (c)(1), and (d) of subpart WWW, are used to demonstrate compliance with the operating conditions for control systems. If a deviation occurs, you have failed to meet the control device operating conditions described in this subpart and have deviated from the requirements of this subpart. Finally, you must develop and implement a written SSM plan according to the provisions in 40 CFR 63.6(e)(3). A copy of the SSM plan must be maintained on site. Failure to write, implement, or maintain a copy of the SSM plan is a deviation from the requirements of this subpart." **[Reference: 40.CFR §63.1960]**

Compliance Demonstration
"Keep records and reports as specified in 40 CFR Part 60, Subpart WWW, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR Part 60, Subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 60.757(f) every 6 months." **[Reference: 40.CFR §63.1980(a)]**

"You must also keep records and reports as specified in the general provisions of 40 CFR Part 60 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports." **[Reference: 40.CFR §63.1980(b)]**

Emission Unit: EU-02

One (1) Flare System (installed in 2000).

MDE Registration No. 9-0082

Applicable Standards and Limits

A. Control of Visible Emissions

[COMAR 26.11.06.02C(1)] – Visible Emission Standards.
"In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

[COMAR 26.11.06.02A(2)] – General Exceptions.
"The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period."

Compliance Demonstration
To demonstrate compliance, the Permittee shall:

Properly operate and maintain the flare in a manner to minimize visible emissions **[Reference: COMAR 26.11.03.06C]**,

Retain records of preventive maintenance on site for at least five (5) years and make these records available to the Department upon request **[Reference: COMAR 26.11.03.06C]**, and

Report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Operational Standards

[40 CFR Part 62.16714] – Standards for municipal solid waste landfill emissions.
"(a) Landfills. Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control MSW landfill emissions at each MSW landfill that meets the following conditions:
…
(4) Closed subcategory. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year.
…

(c) Control system. Control the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR 60.24.
(1) A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in § 62.16722(d)…"

The Permittee shall operate and maintain the flare system in accordance with the manufacturer's recommendations. **[Reference: MDE PTC No. 22-9-0082 issued on July 26, 2008]**

Compliance Demonstration
To demonstrate compliance, the Permittee shall:

Install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame, and

(2) A device that records flow to the flare and bypass of the flare (if applicable). For this device, the Permittee shall install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. The Permittee shall performed a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line." **[Reference: 40 CFR Part 62.16722(c)]**

Keep up-to-date, readily accessible records of the flame or flare pilot flame monitoring as specified under §62.16722(c) for open flares and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot is absent during those instances when the utility flare is being used while it is out-of-service. **[Reference: 40 CFR 62.16726(b)(4) and MOE ARMA/AQPP Letter, October 2, 1995]**

Keep up-to-date, readily accessible records of the control device vendor specifications until the control device is removed. **[Reference: 40 CFR 62.16726(b)]**

Make records of the flame or flare pilot flame monitoring, of all periods of operation in which the flame or flare pilot is absent during those instances when the utility flare is being used while it is out-of-service, and of the control device vendor specifications available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Note: All records must be maintained for a period of five (5) years. **[Reference: COMAR 26.11.03.06C(5)(g)]**

Emission Unit: EU-03

One (1) 755 Hp diesel powered horizontal grinder (installed in 2024).

MDE Registration No. 9-0202

Applicable Standards and Limits

A. Control of Visible Emissions
[COMAR 26.11.09.05E] – Stationary Internal Combustion Engine Powered Equipment.

"(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(4) Exceptions.

(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(i) Engines that are idled continuously when not in service: 30 minutes;

(ii) All other engines: 15 minutes.

(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration
The Permittee complies with visible emissions limitations by reporting incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(1) – Sulfur Content Limitations for Fuel.
"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III, and IV: (c) Distillate fuel oils, 0.3 percent."

Compliance Demonstration
The Permittee shall obtain a fuel supplier certification or other fuel analyses showing the sulfur content of the fuel used in the engine. The Permittee shall retain fuel supplier certifications or other fuel analyses showing the sulfur content of the fuel used in the engine for at least five (5) years. The Permittee shall provide fuel supplier certifications or other fuel analyses showing the sulfur content of the fuel used in the engine as part of the annual emission certification and to the Department upon request. **[Reference: COMAR 26.11.09.07C]**

C. Operational Limit

(1) Except as otherwise provided in this part, the horizontal grinder with engine shall be operated in accordance with specifications included in the application, and any operating procedures recommended by equipment vendors, unless the Department provides written approval for alternative operating procedures.

(2) The engine shall be a nonroad engine, as defined in 40 CFR, §1068.30, unless the Permittee complies with the stationary engine requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ and 40 CFR 63, Subpart ZZZZ, as applicable, for the engine.

(3) The Permittee shall only burn diesel fuel in the engine associated with the horizontal grinder, unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel.

(4) The Permittee shall properly operate and maintain the engine associated with the horizontal grinder in a manner to prevent visible emissions.

[Reference: PTC No. 045-0208-9-0202 issued on August 27, 2025]

Compliance Demonstration
The Permittee shall record the operating hours for the engine powering the horizontal grinder. The Permittee shall record the amount of fuel combusted. The Permittee shall record, maintain for at least five (5) years, and make available to the Department upon request, the following information:

(a) Operating hours for the engine powering the horizontal grinder, and

(b) The amount of fuel oil combusted.

The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, and as part of the annual emission certification, records of the amount of fuel oil combusted and engine-operating hours.

[References: MDE PTC No. 045-0208-9-0202, issued on August 27, 2025, and COMAR 26.11.09.08G(e)]

Emission Unit: EU-04

One (1) horizontal grinder powered by a 755 Hp diesel engine (installed in 2018).

MDE Registration No. 9-0186

Applicable Standards and Limits

A. Control of Visible Emissions
[COMAR 26.11.09.05E] – Stationary Internal Combustion Engine Powered Equipment.
"(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
(4) Exceptions.
(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
(b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
(i) Engines that are idled continuously when not in service: 30 minutes;

(ii)All other engines: 15 minutes.

(c) Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration

The Permittee complies with visible emissions limitations by reporting incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Sulfur Oxides

[COMAR 26.11.09.07A(1)] – Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall obtain a certification form the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. **[Reference: COMAR 26.11.03.06C]** The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least five (5) years. **[Reference: COMAR 26.11.09.07C]** The Permittee shall report annual fuel supplier certification to the Department upon request. **[Reference: COMAR 26.11.09.07C]**

C. Operational Limit

(1) Except as otherwise provided in this part, the horizontal grinder shall be operated in accordance with specifications included in the application, and any operating procedures recommended by equipment vendors unless the Department provides written approval for alternative operating procedures. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]**

(2) The engine shall be a nonroad engine, as defined in 40 CFR, §1068.30, unless the Permittee complies with the stationary engine requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ and 40 CFR 63, Subpart ZZZZ, as applicable, for the engine.

(3) The Permittee shall only burn diesel fuel in the 755 Hp engine unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]**

(4) The Permittee shall properly operate and maintain the engine powering the horizontal grinder in a manner to prevent visible emissions. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]**

(5) The engine powering the horizontal grinder shall operate no more than 1,500 hours for any 12-month rolling period. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]**

Compliance Demonstration

The Permittee shall properly monitor the operating hours for the engine powering the horizontal grinder. The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Operating hours for the engine that drives the horizontal grinder, and

(b) The Permittee shall report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification. **[References: MDE PTC No. MDE PTC No. 045-0208-9-0186, issued on December 19, 2018 and COMAR 26.11.09.08G(e)]**

COMPLIANCE SCHEDULE

The Newland Park Landfill is currently in compliance with all applicable air quality requirements.

TITLE IV - ACID RAIN

The Acid Rain Program does not apply to the Newland Park Landfill.

TITLE VI - OZONE DEPLETING SUBSTANCES

The facility is currently complying with the applicable federal requirements in 40 CFR 82, 82.34(a); 82.42(a)(1); 82.42(b)(1), (2).

SECTION 112 (r) - ACCIDENTAL RELEASE

The facility is not subject to the requirements of Section 112 (r) of the Clean Air Act.

PERMIT SHIELD

The Newland Park Landfill did not request a permit shield.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 4 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

The engines of these four (4) items are subject to the following requirements:

(A) COMAR 26.11.09.05E(2) – Emissions During Idle Mode. The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3) – Emissions During Operating Mode. The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) COMAR 26.11.09.07A(1) – Sulfur Content Limitations for Fuel.
"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III, and IV: (c) Distillate fuel oils, 0.3 percent."

(E) 40 CFR 1090.305 ULSD standards.
(a) *Overview.* Except as specified in § 1090.300(a), diesel fuel must meet the ULSD per-gallon standards of this section.
(b) *Sulfur standard.* Maximum sulfur content of 15 ppm.
(c) *Cetane index or aromatic content.* Diesel fuel must meet one of the following standards:
(1) Minimum cetane index of 40.
(2) Maximum aromatic content of 35 volume percent.

THESE REQUIREMENTS APPLY TO THE FOLLOWING UNITS:

Emissions Units

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) 175 Hp (130.55 kW), 6.8 liter diesel powered John Deere Engine installed on June 2009.

Additional Applicable Standards/Limits:
Standard of Performance for Stationary Compression Ignition Internal Combustion Engines (SI ICE). – [40 CFR 60, Subpart IIII]

All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in federal New Source Performance Standards (NSPS) promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines.

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

"(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE."

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

"(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007." **[Reference: §60.4202(a)(2)]**

Appendix I to Part 1039—Summary of Previous Emission Standards.

The following standards, which EPA originally adopted under 40 CFR part 89, apply to nonroad compression-ignition engines produced before the model years specified in § 1039.1:

(c) Tier 3 standards apply as summarized in the following table:

Table 3 to Appendix I—Tier 3 Emission Standards

[g/kW-hr]

Rated power (kW)	Starting model year	NO_X+NMHC	CO	PM
37 ≤ kW < 75	2008	4.7	5.0	0.40
75 ≤ kW < 130	2007	4.0	5.0	0.30
130 ≤ kW ≤ 560	2006	4.0	3.5	0.20

Table 3 to Appendix I—Tier 3 Emission Standards

[g/kW-hr]

Rated power (kW)	Starting model year	NO_X+NMHC	CO	PM

§ 1039.105 What smoke opacity standards must my engines meet?

(b) Measure smoke opacity as specified in § 1039.501(c). Smoke opacity from your engines may not exceed the following standards:
(1) 20 percent during the acceleration mode;
(2) 15 percent during the lugging mode; and
(3) 50 percent during the peaks in either the acceleration or lugging modes.

§ 1039.501 How do I run a valid emission test?

(c) Measure smoke opacity using the procedures in 40 CFR part 1065, subpart L, for evaluating whether engines meet the smoke opacity standards in § 1039.105, except that you may test two-cylinder engines with an exhaust muffler like those installed on in-use engines.

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

"(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted."

§ 1090.305 ULSD standards.

(a) ***Overview.*** Except as specified in § 1090.300(a), diesel fuel must meet the ULSD per-gallon standards of this section.
(b) ***Sulfur standard.*** Maximum sulfur content of 15 ppm.
(c) ***Cetane index or aromatic content.*** Diesel fuel must meet one of the following standards:
(1) Minimum cetane index of 40.

(2) Maximum aromatic content of 35 volume percent.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

"(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR part 1068, as they apply to you.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in

non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Emissions Units

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

National Emissions Standards for Hazardous Air Pollutants (NESHAP). – [40 CFR 63, Subpart ZZZZ]

§ 63.6585 Am I subject to this subpart?
"You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) ….
(b) …
(c) An area source of HAP emissions is a source that is not a major source."

§ 63.6590 What parts of my plant does this subpart cover?
This subpart applies to each affected source.

(a) ***Affected source.*** An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) ***Existing stationary RICE.***

(i) …

(ii) …

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(2) ***New stationary RICE.***

(i) …

(ii) …

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

…

(c) ***Stationary RICE subject to Regulations under 40 CFR Part 60***.
"An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;"

Note: For the two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024, and the one (1) 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009, the Permittee will meet the requirements of 40 CFR Part 63, Subpart ZZZZ, by meeting the requirements of 40 CFR Part 60, Subpart IIII.

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; 1 b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

[1] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in table 2d of this subpart.

All reports and notifications required under 40 CFR 60 or 63, Subpart IIII, and ZZZZ, respectively shall be submitted to the Compliance Program of the Department’s Air and Radiation Management Administration.

Operational Requirements

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009

(1) The Permittee must operate and maintain the stationary compression ignition internal combustion engines in a manner that achieves the emission standards over the entire life of the engines. **[Reference: 40 CFR §60.4206]**

(2) The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §1090.305 as follows:

(a) Maximum sulfur content 15 ppm and

(b) Minimum cetane index of 40; or

(c) Maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §1090.305]

(3) The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission-related written instructions. **[Reference: 40 CFR §60.4211(a)(1)]**

(4) The Permittee may change only those emission-related settings that are permitted by the manufacturer. **[Reference: 40 CFR §60.4211(a)(2)]**

(5) The Permittee may not operate the engine for any purpose other than emergency operation, maintenance and testing, and emergency demand response as described below:

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) The permittee may operate the emergency stationary ICE as described below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards

require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Note: 40 CFR §60.4211(f)(3) allows for 50 hours of non-emergency use of the emergency generator, however, operation of this emergency generator for non-emergency use is prohibited by COMAR 26.11.36.03(A)(1).

Note: Effective May 7, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted.

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

(1) The Permittee shall meet the non-road diesel fuel sulfur requirements of 40 CFR §1090.305 as follows:

a. Maximum sulfur content 15 ppm and

b. Minimum cetane index of 40; or

c. Maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §1090.305]

(2) The Permittee shall, except during periods of startup, perform the following:

a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first;

b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;

c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary

[Reference: 40 CFR §63.6603]

(3) During periods of startup, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. **[Reference: 40 CFR §63.6603]**

Record Keeping and Reporting Requirements

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) The sulfur content of the fuel used; **[Reference: COMAR 26.11.09.07A(1)(c)]**

(b) The amount of fuel purchased annually;

(c) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §1090.305.

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009

(2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Installation date of the diesel-fired generator;

(b) An operating log for the generator listing the dates, hours of operation, and reason for generator operation (i.e. maintenance, operational testing, power outage, etc.). **[Reference: COMAR 26.11.36.03E and 40 CFR §60.4214(b)]**

(c) The sulfur content of the fuel used; [Reference: COMAR 26.11.09.07A(1)(c)]

(d) The amount of fuel purchased annually;

(e) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §1090.305.

(f) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211.

(g) Other relevant information as required by the Department.

(2) No. 5 Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) X Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(4) Containers, reservoirs, or tanks used exclusively for:

(a) X Storage of butane, propane, or liquefied petroleum, or natural gas;
(b) X Storage of lubricating oils
(c) X Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (A) **COMAR 26.11.06.08** – Nuisance

   "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

   (B) **COMAR 26.11.06.09** – Odors

   "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

   (C) **COMAR 26.11.15.05** – Control Technology Requirements

   "A person who complies with the ambient impact requirement in Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique.
   (3) Unless an existing installation is controlled using T-BACT, the degree of emission limitation required in order to demonstrate compliance with Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique."

   (D) **COMAR 26.11.15.06** – Ambient Impact Requirement

   1. "Except as provided in §B(3) of this regulation, a person may not cause or permit the discharge of a toxic air pollutant listed in COMAR 26.11.16.07 from an existing installation or source if total allowable emissions of that TAP for the premises will unreasonably endanger human health.
   2. A person shall demonstrate compliance with §B(1) of this regulation using the procedures established in Regulation .07 of this chapter and COMAR 26.11.16.
   3. A person who owns or operates an existing premises shall meet the requirements of §B(1) and (2) of this regulation for each TAP listed in COMAR 26.11.16.07 by the applicable compliance dates listed in COMAR 26.11.16.07, or not later than 2 years after becoming subject to this chapter, whichever is later."

For the Flares Only

(E) **COMAR 26.11.42** – Control of Methane Emissions from Municipal Solid Waste Landfills.

COMAR 26.11.42.01(A) – Applicability and Exemptions.
"This chapter applies to a person who owns or operates a municipal solid waste (MSW) landfill that has accepted waste after November 8, 1987."

COMAR 26.11.42.05(B)(2) – Standard and Requirements for Gas Collection and Control Systems. – Requirements for Enclosed Flares.
"(a) An owner or operator of a MSW landfill that routes landfill gas to an enclosed flare shall achieve a methane destruction efficiency of at least 99 percent by weight and meet the following specifications:

(i) The device shall be equipped with automatic dampers, an automatic shutdown device, a flame arrester, and continuous recording temperature sensors; and
(ii) The device shall have a sufficient flow of propane, natural gas, or another fuel source approved by the Department to the pilot light to prevent unburned collected methane from being emitted to the atmosphere during restart and startup.

(b) The owner or operator of a MSW landfill shall install, calibrate, operate and maintain the flare system in accordance with the manufacturer's specifications and if applicable, within the parameter ranges established in the landfill's permit to construct issued by the Department.

(c) An owner or operator that used an enclosed flare shall install, calibrate, and maintain a gas flow rate measuring device that either records the flow to the control device at least every 15 minutes or secures the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration."

(F) **COMAR 26.11.42.05(B)(7)(a) thru (k)** – Standard and Requirements for Gas Collection and Control Systems. – Performance Test Requirements.
"(a) The owner or operator shall conduct annual performance tests for any gas control device(s) subject to the requirements of §B(2), (3) & (4) of this regulation using the test methods identified in Regulation .11C of this chapter.

(b) An initial performance test shall be conducted within 180 days of start-up of the gas collection and control system.

(c) Following an initial performance test, the owner or operator shall conduct a complete annual performance test no later than 45 days following the 1-year anniversary date of the initial performance test.

(d) The owner or operator of an existing gas control device shall demonstrate compliance with this regulation no later than 180 days following the effective date of this regulation in accordance with the test methods and procedures specified in Regulation .11C of this regulation.

(e) The owner or operator shall conduct performance tests under conditions specified by the Department based on representative performance of the affected source for the period being tested.

(f) Representative conditions shall exclude periods of startup and shutdown unless specified by the Department.

(g) The owner or operator may not conduct performance tests during periods of malfunction.

(h) The owner or operator shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation.

(i) The owner or operator shall make available records necessary to determine the conditions of performance tests available upon request by the Department.

(j) If a gas control device remains in compliance after three consecutive performance tests, the owner or operator may conduct the performance test every 3 years.

(k) Once a gas control device is placed on the 3-year performance test schedule, if a subsequent performance test shows the gas collection and control system is out of compliance with the requirements of this regulation, the performance testing frequency shall return to annual."

(G)**COMAR 26.11.42.09(B)(1)** – Monitoring Requirements and Corrective Actions. – Gas Control System Equipment Monitoring.

"The owner or operator shall monitor the gas control system using the following procedures:

(1) For enclosed combustors (including enclosed flares), the following equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications:

(a) A temperature monitoring device equipped with a continuous recorder which has an accuracy of plus or minus (±) 1 percent of the temperature being measured expressed in degrees Celsius or Fahrenheit; and

(b) A device which records the gas flow to the control device(s) and bypass of the control device. The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes;

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; and

(iii) Perform a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) A temperature monitoring device is not required for boilers and process heaters with a design heat input capacity of 44 megawatts (150 MMBtu/hr) or greater."

(H) **COMAR 26.11.42.09(B)(9)** – Monitoring Requirements and Corrective Actions. – Gas Control System Equipment Monitoring.

"For a gas treatment system, the following equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications:

(a) A device which records the gas flow to the treatment system and bypass if applicable.

(b) The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes;

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; and

(iii) Perform a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line."

(l) **COMAR 26.11.42.10** – Recordkeeping and Reporting Requirements.

COMAR 26.11.42.10B(1)(a), (b), and (m) – Recordkeeping Requirements.
"An owner or operator of a MSW landfill shall maintain the following records for at least 5 years:

(a) All gas collection system downtime exceeding 5 days, including dates of downtime, individual well shutdown and disconnection times, the reason for the downtime, and any corrective actions conducted in response to the downtime;

(b) All gas control system downtime in excess of 1 hour, the reason for the downtime, and the length of time the gas control system was shut down, and any corrective actions conducted in response to the downtime;"

…..

(m) Records of the gas control system equipment operating parameters specified to be monitored under Regulation .09B of this chapter as well as records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The records shall include the following information:

(i) For enclosed flares, all 3-hour periods of operation during which the average temperature difference was more than 28ºC (50º F) below the average combustion temperature during the most recent performance test at which compliance with Regulations .05B(2) and (3) of this chapter was determined;"

COMAR 26.11.42.10C – Reporting Requirements.

COMAR 26.11.42.10C(2) – Equipment Removal Report.

"(a) A gas collection and control system equipment removal report shall be submitted to the Department 30 days prior to well capping, removal, or cessation of operation of the gas collection, treatment, or control system equipment.

(b) The report shall contain the following information:

(i) A copy of the closure notification submitted to the Department in accordance with §C(1) of this regulation;
(ii) A copy of the initial performance test report or other documentation demonstrating that the gas collection and control system has been installed and operated for a minimum of 15 years, unless the owner or operator can demonstrate that due to declining methane rates the MSW landfill is unable to operate the gas collection and control system for a 15-year period;"

(J) **COMAR 26.11.42.10C(7)** – Performance Test Report.

"(a) For a control system designed and operated to meet the requirements of this chapter, the owner or operator shall submit a Performance Test Report to the Department that establishes the reduction efficiency or parts per million by volume no later than 180 days after the initial startup of the approved control system using EPA Method 25 or 25C, 40 CFR Part 60, Appendix A.

(b) The owner or operator shall submit any additional performance test reports to the Department within 30 days after the date of completing each performance test, including any associated fuel analyses."

(c) The performance test report shall include the following information:

(i) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction

devices, all areas excluded from collection, and the proposed sites for the future collection system expansion;

(ii) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

(iii) The documentation of the presence of asbestos or non-decomposable material for each area from which collection wells have been excluded based on the presence of asbestos or non-decomposable material;

(iv) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;

(v) The process for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

(vi) The process for controlling off-site migration."

The Permittee shall follow the reporting procedures listed in COMAR 26.11.42.10 (A) and (A-1). Test results, reports, or other information, unless otherwise specified by the Department shall be submitted to:

Program Manager
Air Quality Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230
410-537-4225
Or electronically to:
MDEAIR.OTHERCOMPLIANCE@maryland.gov
[Reference: COMAR 26.11.42.10 (A) and (A-1)]

(K) **COMAR 26.11.42.11(C)(1)** – Test Methods and Procedures. – Determination of Control Device Destruction Efficiency.
"The following methods of analysis shall be used to determine the efficiency of the control device in reducing methane:

(1) Enclosed Combustors. One of the following test methods shall be used to determine the efficiency of the control device in reducing methane by at least 99 percent, or in reducing the

outlet methane concentration for lean burn engines to less than 3,000 ppmv, dry basis, corrected to 15 percent oxygen:

(a) U.S. EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography;

(b) U.S. EPA Reference Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon;

(c) U.S. EPA Reference Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer; or

(d) U.S. EPA Reference Method 25C, Determination of Nonmethane Organic Compounds in Landfill Gases."

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:
(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

NEWLAND PARK LANDFILL
6948 BRICK KILN ROAD
SALISBURY, MD 21801
DRAFT PART 70 OPERATING PERMIT NO. 24-045-00208

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Newland Park Landfill (NPL) is a municipal solid waste (MSW) landfill located at 6948 Kiln Road, Salisbury, Maryland, serving Wicomico County. The facility is owned and operated by the Wicomico County, Department of Public Works (WC-DPW). The landfill opened in 1960 and began accepting and landfilling MSW. The facility maintains a landfill Refuse Disposal Permit No. 2020-WMF-0283 with the Maryland Department of the Environment – Waste Management Administration (MDE-WAS) for the disposal of non-hazardous municipal solid waste with an expiration date of September 21, 2025. Up to the year 2023, the landfill has accepted approximately 4,184,473 tons of waste. The SIC code for the landfill is 4953.

The landfill property covers 180 acres, of which 95 acres are now or have been used for the collection of waste. Landfill gas is gathered by a voluntary active gas collection system, which is either sent to the existing flare or to the landfill gas to energy plant (LFGTE) operated by Ingenco. Wicomico County received an air quality permit to construct on July 26, 2000 to construct a series of additional flares to combust landfill gas. However, since 2002 the landfill constructed and operates a landfill gas flare (MDE Registration No. 9-0082) by LFG Specialties, Inc (Model PCF 61816). The primary air emissions sources at the NPL are the landfill, the flare, and two diesel-powered horizontal grinders.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-01	9-0208	Active municipal solid waste landfill with a design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system.	Began operation 1960
EU-02	9-0082	Landfill gas flaring system.	July 2000 Modified 2010
EU-03	9-0202	One (1) horizontal grinder powered by a 755 Hp diesel engine.	April 9, 2024
EU-04	9-0186	One (1) horizontal grinder powered by a 755 Hp diesel engine.	December 19, 2018

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARMA	Air and Radiation Management Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant

tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and

conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required by (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or

the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each

applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.157.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, recordkeeping and reporting requirements included in **Section III –Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Reference: COMAR 26.11.03.06C(5)(g)]**

The NPL is currently subject to the following requirements:

Table IV – 1	
1.0	**Emissions Unit Number(s) – EU-01** One (1) active 180-acre municipal solid waste landfill with a maximum design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system, and sent to a flaring system. **[MDE Reg. No. 9-0208]**
1.1	**Applicable Standards/Limits:** Newland Park Landfill is subject to the testing, record keeping, and reporting requirements indicated below.
1.2	**Testing Requirements:** If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to § 62.16724(c) and must recalculate the NMOC mass emission rate annually as required under § 62.16714(e). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section. **[Reference: 40 CFR §62.16718(a)(3)(iii)]**

Table IV – 1	
1.3	**<u>Monitoring Requirements</u>:** See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.
1.4	**<u>Record Keeping Requirements</u>:** The Permittee shall keep all the records required under this permit for at least five (5) years and shall make such records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**
1.5	**<u>Reporting Requirements</u>:** **A.** If the Permittee increases the maximum design capacity of the Quarantine Road Landfill after November 1, 1997, the Permittee shall amend and resubmit the design capacity report within 90 days of the issuance of an air quality Permit to Construct or a permit from the MDE Land Management Administration that authorizes the increase or any other change that increases the maximum design capacity of the landfill. **[Reference: 40 CFR§62.16724(a)]** **B.** The Permittee shall estimate the annual NMOC emission rate calculated using the formula and procedures as described in 40 CFR §62.16724(c). **[Reference: 40 CFR§62.16724(c)]** **C.** The Permittee may, upon approval by the Department, submit a combined report to satisfy the NMOC reporting requirements and the annual Emissions Certification requirements. **[Reference: 40 CFR§62.16724(a)&(c)]**

A permit shield shall cover the applicable requirements identified for the emission units listed in the table above.

The Newland Park Landfill will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams (37 tons) per year or more:

Table IV – 1	
1A.0	**Emissions Unit Number(s) – EU-1** One (1) active 180-acre municipal solid waste landfill with a maximum design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system, and sent to a flaring system. **[MDE Reg. No. 9-0208]**
1A.1	**Applicable Standards/Limits:** **A. Standards for Air Emissions** **Standards for municipal solid waste landfill emissions – [40 CFR 62.16714]** "The owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must either install a collection and control system as provided in paragraphs (b) and (c) of this section or calculate an initial NMOC emission rate for the landfill using the procedures specified in § 62.16718(a). The NMOC emission rate must be recalculated annually, except as provided in § 62.16724(c)(3). (1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator must: (i) Submit an annual NMOC emission rate report according to § 62.16724(c), except as provided in § 62.16724(c) (3); and (ii) Recalculate the NMOC emission rate annually using the procedures specified in § 62.16724(a) until such time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or the landfill is closed. (A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (e)(1)(ii) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraphs (b) and (c) of this section; calculate NMOC emissions using the next higher tier in § 62.16718; or conduct a surface emission

Table IV – 1

monitoring demonstration using the procedures specified in § 62.16718(a)(6).

(B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided in § 62.16724(f), except for exemption allowed under § 62.16711(g)(4).

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in § 62.16724(d), except for exemptions allowed under § 62.16711(g)(3); calculate NMOC emissions using a higher tier in § 62.16718; or conduct a surface emission monitoring demonstration using the procedures specified in § 62.16718(a)(6)."

Particulate Matter from Materials Handling and Construction

"The Permittee shall not cause or allow any material to be handled, transported, or stored; or a building, its appurtenances; or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne." **[Reference: COMAR 26.11.06.03D(2)]**

B. Operational Standards

[Reference: 40 CFR 62.16716]

(1) The Permittee shall operate the gas collection and control system such that landfill gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more if active; or 2 years or more if closed or at final grade. **[Reference: 40 CFR 62.16714(b)(2)(ii) and 62.16716(a)]**

(2) The Permittee shall operate the collection system with negative pressure at each wellhead except under the conditions specified in §62.16716(b)(1) - (3). **[Reference: 40 CFR 62.16716(b)]**

(3) The Permittee shall operate each interior wellhead in the collection system with a landfill gas temperature less than 55° C. The Permittee may establish a higher operating temperature at a particular well as provided for in §62.16716(c). **[Reference: 40 CFR 62.16716(c)]**

Table IV – 1	
	(4) The Permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the Permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill as provided for in §62.16716(d). **[Reference: 40 CFR 62.16716(d)]** (5) In the event the collection or control system is not operating, the Permittee shall shut down the gas mover system and shall close, within one hour, all valves in the collection and control system contributing to venting of the gas to the atmosphere. **[Reference: 40 CFR 62.16716(e)]** (6) The Permittee shall operate the control system at all times when the collected gas is routed to the system. **[Reference: 40 CFR 62.16716(f)]** (7) The Permittee must take corrective actions if the requirements in §62.16720(a)(3) and (5) or §62.16720(c) of 40 CFR 62, Subpart OOO if monitoring demonstrates that the operational requirements in §62.16716(b), (c), or (d) are not met. If corrective actions are taken as specified in §62.16720, the monitored exceedance is not a violation of the operational requirements in §62.16716. **[Reference: 40 CFR 62.16716(g)]** (8) The Permittee shall take reasonable precautions, including the application of water on unpaved roads and other surfaces, to prevent particulate matter from becoming airborne. **[Reference: COMAR 26.11.06.03D(2)]** **C. <u>Other Requirements</u>** The provisions of this subpart apply at all times, including periods of startup, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, you must comply with the work practice specified in § 62.16716(e) in lieu of the compliance provisions in § 62.16720. **[Reference: 40 CFR 62.16720(e)]**
1A.2	**<u>Testing Requirements</u>:** **A. <u>Standards for Air Emissions</u>** **[Reference: 40 CFR 62.16718 and 62.16720]**

Table IV – 1	
	(1) The Permittee shall use the methods specified in §62.16720(a)(1) through (6) to determine whether the gas collection system is in compliance with the requirements for an active collection system in §62.16714(b)(2). **[Reference: 40 CFR 62.16720(a)]** (2) See monitoring requirements. (3) The Permittee shall follow the procedures in §62.16718(b) to calculate the NMOC gas produced by the landfill to determine if the collection and control system may be capped or removed as provided in §62.16714(f). **[Reference: 40 CFR 62.16718(b)]** (4) See Monitoring Requirements. (5) See Monitoring Requirements. **Note**: "If the resulting NMOC mass emission rate is less than 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to § 62.16724(c) and must recalculate the NMOC mass emission rate annually as required under § 62.16714(e). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section." **[Reference: 40 CFR 62.16718(a)(3)(e)(iii)]** **B. <u>Operational Standards</u>** (1) See Monitoring Requirements (2) See Monitoring Requirements (3) The nitrogen and oxygen level shall be determined as prescribed in 40 CFR 62.16722(a)(2). See also requirements of listed under Permit Condition IV.1.3.B. **[Reference: 40 CFR 62.16722(a)(2)]** (4) thru (8) See Monitoring Requirements **C. <u>Other Requirements</u>** See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.

Table IV – 1	
1A.3	**Monitoring Requirements:** **A. Standards for Air Emissions** **[Reference: 40 CFR 62.16722]** (1) The Permittee shall operate and monitor the gas system in accordance with 40 CFR 62.16722, and the permit condition listed in Section IV.1.3.B. (2) thru (5) See record keeping and reporting requirements. **B. Operational Standards** (1) See record keeping and reporting requirements. (2) The Permittee shall install a sampling port at each wellhead. **[Reference: 40 CFR 62.16722(a)]**. The Permittee shall measure the gauge pressure in the gas collection header on a monthly basis as provided in §62.16720(a)(3). **[Reference: 40 CFR 62.16722(a)(1)]** (a) If a positive pressure exists, the Permittee shall initiate corrective action within 5 days, except for the conditions allowed under §62.16716(b). **[Reference: 40 CFR 62.16720(a)(3)**] (b) If negative pressure cannot be achieved without excess air infiltration into the landfill within 15 days of the first measurement of a positive pressure in a wellhead, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but not later than 60 days after positive pressure was first measured. **[Reference: 40 CFR 62.16720(a)(3)(i)]** (3) The Permittee shall: (a) Install a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead. **[Reference: 40 CFR 62.16722(a)]** (b) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis. **[Reference: 40 CFR 62.16722(a)(2)]** (c) Monitor temperature of the landfill gas on a monthly basis as provided in §62.16720(a)(4). **[Reference: 40 CFR 62.16722(a)(3)]** (d) If a well exceeds the temperature operating parameters specified in §62.16716(c), the Permittee shall initiate action to correct the exceedance as provided in §62.16720(a)(4). **[Reference: 40 CFR 62.16720(a)(4)]**

Table IV – 1	
	(4) The Permittee shall use the procedures specified in §62.16720(c)(1) through (c)(5) to demonstrate compliance with the surface methane operational standard as provided in §62.16716(d) and as detailed in the Updated Surface Monitoring Design Plan. **[Reference: 40 CFR 62.16720(c)] & [Administrative Compliance Consent Order between EPA and Waste Management Disposal Services of Maryland dated 10/28/04]** (a) The Permittee shall comply with the instrumentation specifications and procedures for surface emission monitoring devices as specified in §62.16720(d) and monitor surface concentrations of methane according to the instrument specifications and procedures. **[Reference: 40 CFR 62.16720(d)]** (b) The Permittee shall record as a monitored exceedance any reading of 500 parts per million or more of methane above background at any location and the Permittee shall take the actions specified in §62.16720(c)(4)(i) through (v). As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §62.16716(d). **[Reference: 40 CFR 62.16720(c)(4)]** (c) The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. **[Reference: 40 CFR 62.16720(c)(5)]** (d) When the landfill is closed and it has no monitored exceedances of the 500 ppm operational standard for surface methane concentrations in three consecutive quarterly monitoring periods, the Permittee may convert to an annual monitoring frequency. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. **[Reference: 40 CFR 62.16722(f)]** (5) thru (8) See record keeping and reporting requirements. **C. <u>Other Requirements</u>** See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.
1A.4	**<u>Record Keeping Requirements</u>:** **A. <u>Standards for Air Emissions</u>** (1) Except as provided for in §62.16724(d)(2): (a) The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location for each collector as specified in §62.16726(d)(1) and (2). **[Reference: 40 CFR 62.16726(d)]**

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	(b) The Permittee shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in §62.16726(b)(1) as measured during the initial performance test. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. **[Reference: 40 CFR 62.16726(b)** (2) thru (5) See record keeping and reporting requirements. **B. <u>Operational Standards</u>** (1) See record keeping and reporting requirements. (2) through (4) Except as provided for in §62.16724(d)(2), the Permittee shall keep for five (5) years up-to date, readily accessible monthly records of the gauge pressure in the gas collection system nitrogen or oxygen concentrations in the landfill gas, and temperature of the landfill gas as specified to be monitored in §62.16722(a). In a similar manner, the Permittee will keep records of the surface methane concentrations monitored as specified in §62.16722(f). **[Reference: 40 CFR 62.16726(c)]** (2) The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual report as provided in §62.16724(h)(1). **[Reference: 40 CFR 62.16716(b)(1)]** (5) and (6) See record-keeping and reporting requirements. (7) Except as provided for in §62.16724(d)(2), the Permittee shall keep for at least 5 years up-to-date, readily accessible records of items specified in §62.16726(e)(1) through (5) of §62.16726(e). **[Reference: 40 CFR 62.16726(e)]** (8) See record-keeping and reporting requirements. **C. <u>Other Requirements</u>** (1) Except as provided in §62.16724(d)(2), the Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered §62.16714(e), 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. **[Reference: 40CFR 62.16726(a)]**

Table IV – 1	
	(2) Except as provided in §62.16724(d)(2), the Permittee shall keep for 5 years up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. **[Reference: 40 CFR 62.16726(c)]** (3) The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock and- key configurations used to seal bypass lines, specified under §62.1672. **[Reference: 40 CFR 62.16726(c)(2)]**
1A.5	**Reporting Requirements:** **A. Standards for Air Emissions** (1) & (2) See record keeping and reporting requirements. (3) The Permittee shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment as required in §62.16724(g)(1) through (2). **[Reference: 40 CFR 62.16724(g)]** (4) The Permittee shall submit a closure report to the Administrator within 30 days of waste acceptance cessation as required in §62.16724(f). If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without the Permittee filing a notification of modification as described in §60.7(a)(4). **[Reference: 40 CFR 62.16724(f)]** (5) See record keeping and reporting requirements. **B. Operational Standards** (1) through (6) The Permittee shall submit to the Administrator annual reports of the recorded information in §62.16724(h)(1) through (7). The reportable exceedances for enclosed combustors are defined under §62.16726(c)(1). **[Reference: 40 CFR 62.16724(h)]** (7) and (8) See record-keeping and reporting requirements. **C. Other Requirements** The Permittee shall submit an annual NMOC emission rate report to the Administrator. The report is due on the anniversary of the Permittee's

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	initial submittal of the NMOC report as required in 40 CFR 62.16724(c). **[Reference: 40 CFR 62.16724(c)]** Exception: The Permittee is exempted from the requirements of 40 CFR 62.16724(c)(1) through (3), after the installation of a landfill gas collection and control system in compliance with §62.16714(b) and (c), during such time as the collection and control system is in operation and in compliance with §§62.16716 and 62.16720. **[Reference: 40 CFR 62.16724(c)(4)]**

The Newland Park Landfill will be subject to the following requirements, if calculated NMOC emissions increase to 50 megagrams (55 tons) per year or more:

Table IV – 1a	
1a.0	**Emissions Unit Number(s) – EU-1 Cont'd** One (1) active 180-acre municipal solid waste landfill with a maximum design capacity of 6.24 million tons of MSW equipped with a voluntary active gas collection system, and sent to a flaring system. **[MDE Reg. No. 9-0208]**
1a.1	**Applicable Standards/Limits**: **Subpart AAAA – National Emission Standard for Hazardous Air Pollutants: Municipal Solid Waste Landfills**. **Applicability** "You are subject to this subpart if you own or operate a MSW landfill that has accepted since November 8, 1987 or has additional capacity for waste disposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section: (3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to §63.1959." **[Reference: 40 CFR §63.1935(a)(3)]** "If your landfill is an existing affected source and is an area source meeting the criteria in §63.1935(a)(3), you must comply with the requirements in §63.1957(a), §63.1958, §63.1961 and §63.1962 by the date your landfill is required to install a collection and control system by the Federal plan, or

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	EPA approved and effective State or tribal plan that applies to your landfill, whichever occurs later." **[Reference: 40 CFR §63.1945]** **Standards** Before September 28, 2021, if alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions have already been approved under 40 CFR part 60, subpart WWW; subpart XXX; a federal plan; or an EPA-approved and effective state or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1981(h), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average. Beginning no later than September 28, 2021, the collection and control system design plan may include for approval collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions, as provided in §63.1981(d)(2). **[Reference: 40 CFR §63.1955(a)]** **General and Continuing Compliance Requirements** "Compliance is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under §63.1961(b)(1), (c)(1), and (d) are used to demonstrate compliance with the operating standards for control systems. If a deviation occurs, you have failed to meet the control device operating standards described in this subpart and have deviated from the requirements of this subpart. (a) Before September 28, 2021, you must develop a written SSM plan according to the provisions in §63.6(e)(3) of subpart A. A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart. (b) After September 27, 2021, the SSM provisions of §63.6(e) of subpart A no longer apply to this subpart and the SSM plan developed under paragraph (a) of this section no longer applies. Compliance with the emissions standards and the operating standards of §63.1958 of this subpart is required at all times. [Reference: 40 CFR §63.1964]." **[Reference: 40.CFR §63.1960]**

Table IV – 1a	
1a.2	**Testing Requirements:** See **General and Continuing Compliance Requirements**
1a.3	**Monitoring Requirements:** See **General and Continuing Compliance Requirements**
1a.4	**Record Keeping Requirements:** “Keep records and reports as specified in 40 CFR Part 60, Subpart OOO, or in the Federal plan, EPA approved State plan or tribal plan that implements 40 CFR Part 60, Subpart Cc, whichever applies to your landfill, with one exception: You must submit the annual report described in 40 CFR 62.16724(h) or operator must follow semi-annual reporting requirements as specified in 40 CFR 63.1981(h) in lieu of this paragraph.**[Reference: 40.CFR §63.1981(a)]** "You must also keep records and reports as specified in the general provisions of 40 CFR Part 63 and this part as shown in Table 1 of this subpart. Applicable records in the general provisions include items such as SSM plans and the SSM plan reports.” **[Reference: 40.CFR §63.1983]**
1a.5	**Reporting Requirements:** See **General and Continuing Compliance Requirements**

Table 1 to Subpart AAAA of Part 63 – Applicability of NESHAP General Provisions to Subpart AAAA.		
Part 63 Citation	**Description**	**Explanation**
63.1(a)	Applicability: general applicability of NESHAP in this subpart	Affected sources are already subject to the provisions of paragraphs (a)(10) - (12) through the same provisions under 40 CFR, part 60 subpart A.
63.1(b)	Applicability determination for stationary sources	
63.1(e)	Title V permitting	
63.2	Definitions	
63.4	Prohibited activities and circumvention	Affected sources are already subject to the provisions of paragraph (b) through the same provisions under 40 CFR, part 60 subpart A.
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	
63.6(e)	Operation and maintenance requirements, start-up, shutdown and malfunction plan provisions	
63.6(f)	Compliance with non opacity emission standards	Affected sources are already subject to the provisions of paragraphs (f)(1) and (2)(i) through the same provisions under 40 CFR, part 60 subpart A.
63.10(b)(2)(i) – (b)(2)(v)	General recordkeeping requirements	
63.10(d)(5)	If actions taken during start-up, shutdown and malfunction are	

Table 1 to Subpart AAAA of Part 63 – Applicability of NESHAP General Provisions to Subpart AAAA.		
Part 63 Citation	**Description**	**Explanation**
	consistent with the procedures in the startup, shutdown and malfunction plan, this information shall be included in a semi-annual startup, shutdown and malfunction plan report. Any time an action taken during a startup, shutdown and malfunction plan is not consistent with the startup, shutdown and malfunction plan, the source shall report actions taken with 2 working days after commencing such actions, followed by a letter 7 days after the event.	
63.12(a)	These provisions do not preclude the State from adopting and enforcing any standard, limitation, etc; requiring permits or requiring emissions reductions in excess of those specified.	
63.15	Availability of information and confidentiality.	

Table IV – 2	
2.0	**Emissions Unit Number(s) – EU-2** Flare System **[MDE Reg. No. 9-0082]**
2.1	**Applicable Standards/Limits**: **A. Control of Visible Emissions** **[COMAR 26.11.06.02C(1)]** – Visible Emission Standards. "In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity." **[COMAR 26.11.06.02A(2)]** – General Exceptions. "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60-minute period." **B. Operational Standards** **[40 CFR Part 62.16714]** – Standards for municipal solid waste landfill emissions. "(a) Landfills. Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control MSW landfill emissions at each MSW landfill that meets the following conditions: … (4) Closed subcategory. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year. … (c) Control system. Control the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR 60.24. (1) A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in § 62.16722(d)…" The Permittee shall operate and maintain the flare system in accordance with the manufacturer's recommendations. **[Reference: MDE PTC No. 22-9-0082 issued on July 26, 2008]**

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2.2	**Testing Requirements:** **A. Control of Visible Emissions** See Monitoring Requirements in Section 2.3 A., Record Keeping Requirements in Section 2.4 B., and Reporting Requirements in Section 2.5 B. **B. Operational Standards** See Monitoring Requirements in Section 2.3 B., Record Keeping Requirements in Section 2.4 B., and Reporting Requirements in Section 2.5 B.
2.3	**Monitoring Requirements:** **A. Control of Visible Emissions** The Permittee shall properly operate and maintain the flare in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** **B. Operational Standards** **[40 CFR Part 62.16722]** – Monitoring of operations. "(c) Each owner or operator seeking to comply with § 62.16714(c) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment: (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame. (2) A device that records flow to the flare and bypass of the flare (if applicable). The owner or operator must: (i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed

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	position and that the gas flow is not diverted through the bypass line.
2.4	**<u>Record Keeping Requirements</u>:** Note: All records must be maintained for a period of five (5) years. **[Reference: COMAR 26.11.03.06C(5)(g)]** **A. <u>Control of Visible Emissions</u>** The Permittee shall retain records of preventive maintenance on site for at least five (5) years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **B. <u>Operational Standards</u>** The Permittee shall keep up-to-date, readily accessible records of the flame or flare pilot flame monitoring as specified under §62.16722(c) for open flares and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot is absent during those instances when the utility flare is being used while it is out-of-service. **[Reference: 40 CFR 62.16726(b)(4) and MOE ARMA/AQPP Letter, October 2, 1995]** The Permittee shall keep up-to-date, readily accessible records of the control device vendor specifications until the control device is removed. **[Reference: 40 CFR 62.16726(b)]**
2.5	**<u>Reporting Requirements</u>:** **A. <u>Control of Visible Emissions</u>** The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations. **B. <u>Operational Standards</u>** The Permittee shall make records of the flame or flare pilot flame monitoring, of all periods of operation in which the flame or flare pilot is absent during those instances when the utility flare is being used while it is out-of-service, and of the control device vendor specifications available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Table IV – 3	
3.0	**Emissions Unit Number(s) – EU-03** One (1) 755 Hp diesel powered horizontal grinder (installed in 2024). **[MDE Reg. No. 9-0202]**
3.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions** **[COMAR 26.11.09.05E]** – Stationary Internal Combustion Engine Powered Equipment. "(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity. (3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity. (4) Exceptions. (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system. (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; (ii) All other engines: 15 minutes. (c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics." **B. Control of Sulfur Oxides** **[COMAR 26.11.09.07A(1)]** – Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III, and IV: (c) Distillate fuel oils, 0.3 percent." **C. Operational Limit** (1) Except as otherwise provided in this part, the horizontal grinder with engine shall be operated in accordance with specifications included in the application, and any operating procedures recommended by equipment vendors, unless the Department provides written approval for alternative operating procedures.

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	(2) The engine shall be a nonroad engine, as defined in 40 CFR, §1068.30, unless the Permittee complies with the stationary engine requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ and 40 CFR 63, Subpart ZZZZ, as applicable, for the engine. (3) The Permittee shall only burn diesel fuel in the engine associated with the horizontal grinder, unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. (4) The Permittee shall properly operate and maintain the engine associated with the horizontal grinder in a manner to prevent visible emissions. **[Reference: PTC No. 045-0208-9-0202 issued on August 27, 2025]**
3.2	**Testing Requirements:** **A. Control of Visible Emissions** See Reporting Requirements in Section 3.5 A. **B. Control of Sulfur Oxides Emissions** See Monitoring Requirements in Section 3.3 B., Record Keeping Requirements in Section 3.4 B., and Reporting Requirements in Section 3.5 B. **C. Operational Limit** See Monitoring Requirements in Section 3.3 C., Record Keeping Requirements in Section 3.4 C., and Reporting Requirements in Section 3.5 C.
3.3	**Monitoring Requirements:** **A. Control of Visible Emissions** See Reporting Requirements in Section 3.5 A. **B. Control of Sulfur Oxides Emissions** The Permittee shall obtain a fuel supplier certification or other fuel analyses showing the sulfur content of the fuel used in the engine. **[Reference: COMAR 26.11.03.06C]**

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	C. <u>Operational Limit</u> The Permittee shall record the operating hours for the engine powering the horizontal grinder. **[Reference: PTC No. 045-0208-9-0202 issued on August 27, 2025]** The Permittee shall record the amount of fuel combusted. **[Reference: PTC No. 045-0208-9-0202 issued on August 27, 2025]**
3.4	**<u>Record Keeping Requirements</u>:** Note: All records must be maintained for a period of five (5) years. **[Reference: COMAR 26.11.03.06C(5)(g)]** **A. <u>Control of Visible Emissions</u>** See Reporting Requirements in Section 3.5 A. **B. <u>Control of Sulfur Oxides Emissions</u>** The Permittee shall retain fuel supplier certifications or other fuel analyses showing the sulfur content of the fuel used in the engine for at least five (5) years. **[Reference: COMAR 26.11.09.07C]** **C. <u>Operational Limit</u>** The Permittee shall record, maintain for at least five (5) years, and make available to the Department upon request, the following information: (a) Operating hours for the engine powering the horizontal grinder, and (b) The amount of fuel oil combusted. **[Reference: MDE PTC No. 045-0208-9-0202, issued on August 27, 2025]**
3.5	**<u>Reporting Requirements</u>:** **A. <u>Control of Visible Emissions</u>** The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, “Report of Excess Emission and Deviations.” **B. <u>Control of Sulfur Oxides Emissions</u>** The Permittee shall provide fuel supplier certifications or other fuel analyses showing the sulfur content of the fuel used in the engine as part of the annual emission certification and to the Department upon request. **[Reference: COMAR 26.11.09.07C]**

Table IV – 3	
	C. <u>Operational Limit</u> The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, and as part of the annual emission certification, records of the amount of fuel oil combusted and engine-operating hours. **[Reference: COMAR 26.11.09.08G(e)]**

Table IV – 4	
4.0	**<u>Emissions Unit Number(s)</u> – EU-04** One (1) horizontal grinder powered by a 755 Hp diesel engine (installed in 2018). **[MDE Reg. No. 9-0186]**
4.1	**<u>Applicable Standards/Limits</u>:** **A. <u>Control of Visible Emissions</u>** **[COMAR 26.11.09.05E]** – <u>Stationary Internal Combustion Engine Powered Equipment</u>. "(2) Emissions During Idle Mode. A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity. (3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity. (4) <u>Exceptions</u>. (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system. (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; (ii)All other engines: 15 minutes. (c) Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Table IV – 4	
	B. Control of Sulfur Oxides **[COMAR 26.11.09.07A(1)]** – Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent." **C. Operational Limit** (1) Except as otherwise provided in this part, the horizontal grinder shall be operated in accordance with specifications included in the application, and any operating procedures recommended by equipment vendors unless the Department provides written approval for alternative operating procedures. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]** (2) The engine shall be a nonroad engine, as defined in 40 CFR, §1068.30, unless the Permittee complies with the stationary engine requirements of 40 CFR 60, Subpart IIII or Subpart JJJJ and 40 CFR 63, Subpart ZZZZ, as applicable, for the engine. (3) The Permittee shall only burn diesel fuel in the 755 Hp engine unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]** (4) The Permittee shall properly operate and maintain the engine powering the horizontal grinder in a manner to prevent visible emissions. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]** (5) The engine powering the horizontal grinder shall operate no more than 1,500 hours for any 12-month rolling period. **[Reference: MDE PTC No. 045-0208-9-0186 issued on December 19, 2018.]**
4.2	**Testing Requirements:** **A. Control of Visible Emissions** See Reporting Requirements in Section 4.5 A.

Table IV – 4	
	B. Control of Sulfur Oxides Emissions See Monitoring Requirements in Section 4.3 B., Record Keeping Requirements in Section 4.4 B., and Reporting Requirements in Section 4.5 B. **C. Operational Limit** See Monitoring Requirements in Section 4.3 C., Record Keeping Requirements in Section 4.4 C., and Reporting Requirements in Section 4.5 C.
4.3	**Monitoring Requirements:** **A. Control of Visible Emissions** See Reporting Requirements in Section 4.5 A. **B. Control of Sulfur Oxides Emissions** The Permittee shall obtain a certification form the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. **[Reference: COMAR 26.11.03.06C]**. **C. Operational Limit** The Permittee shall properly monitor the operating hours for the engine powering the horizontal grinder.
4.4	**Record Keeping Requirements:** Note: All records must be maintained for a period of five (5) years. **[Reference: COMAR 26.11.03.06C(5)(g)]** **A. Control of Visible Emissions**. See Reporting Requirements in Section 4.5 A. **B. Control of Sulfur Oxides Emissions** The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least five (5) years. **[Reference: COMAR 26.11.09.07C]** **C. Operational Limit** The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information: (a) Operating hours for the engine that drives the horizontal grinder, and

Table IV – 4	
	(b) The Permittee shall report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification. **[Reference: MDE PTC No. MDE PTC No. 045-0208-9-0186, issued on December 19, 2018]**
4.5	**Reporting Requirements:** **A. Control of Visible Emissions** The Permittee shall retain report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, "Report of Excess Emission and Deviations." **B. Control of Sulfur Oxides Emissions** The Permittee shall report annual fuel supplier certification to the Department upon request. **[Reference: COMAR 26.11.09.07C]** **C. Operational Limit** The Permittee shall report amount of fuel oil combusted and engine-operating hours as part of the annual emission certification. **[Reference: COMAR 26.11.09.08G(e)]**

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application and also noted in the October 17, 2024 inspection report. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 4 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) 175 hp, 6.8 liter diesel powered John Deere Engine installed in June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

The engines of these four (4) units are subject to the following requirements:

(A) COMAR 26.11.09.05E(2) – Emissions During Idle Mode. The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3) – Emissions During Operating Mode. The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) COMAR 26.11.09.07A(1) – Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III, and IV: (c) Distillate fuel oils, 0.3 percent."

(E) 40 CFR 1090.305 ULSD standards.
(a) *Overview.* Except as specified in § 1090.300(a), diesel fuel must meet the ULSD per-gallon standards of this section.
(b) *Sulfur standard.* Maximum sulfur content of 15 ppm.
(c) *Cetane index or aromatic content.* Diesel fuel must meet one of the following standards:
(1) Minimum cetane index of 40.
(2) Maximum aromatic content of 35 volume percent.

THESE REQUIREMENTS APPLY TO THE FOLLOWING UNITS:

Emissions Units

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) 175 Hp (130.55 kW), 6.8 liter diesel powered John Deere Engine installed on June 2009.

Additional Applicable Standards/Limits:

Standard of Performance for Stationary Compression Ignition Internal Combustion Engines (SI ICE). – [40 CFR 60, Subpart IIII]
All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in federal New Source Performance Standards (NSPS) promulgated under 40 CFR 60, Subparts A and IIII for Stationary Compression Ignition Internal Combustion Engines.

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

"(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE."

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

"(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(2) For engines with a rated power greater than or equal to 37 KW (50 HP), the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007." **[Reference: §60.4202(a)(2)]**

Appendix I to Part 1039—Summary of Previous Emission Standards.

The following standards, which EPA originally adopted under 40 CFR part 89, apply to nonroad compression-ignition engines produced before the model years specified in § 1039.1:

(c) Tier 3 standards apply as summarized in the following table:

Table 3 to Appendix I—Tier 3 Emission Standards

[g/kW-hr]

Rated power (kW)	Starting model year	NO_x+NMHC	CO	PM
37 ≤ kW < 75	2008	4.7	5.0	0.40
75 ≤ kW < 130	2007	4.0	5.0	0.30
130 ≤ kW ≤ 560	2006	4.0	3.5	0.20

§ 1039.105 What smoke opacity standards must my engines meet?

(b) Measure smoke opacity as specified in § 1039.501(c). Smoke opacity from your engines may not exceed the following standards:

(1) 20 percent during the acceleration mode;

(2) 15 percent during the lugging mode; and
(3) 50 percent during the peaks in either the acceleration or lugging modes.

§ 1039.501 How do I run a valid emission test?

(c) Measure smoke opacity using the procedures in 40 CFR part 1065, subpart L, for evaluating whether engines meet the smoke opacity standards in § 1039.105, except that you may test two-cylinder engines with an exhaust muffler like those installed on in-use engines.

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§ 60.4204 and 60.4205 over the entire life of the engine.

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

"(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted."

§ 1090.305 ULSD standards.

(a) ***Overview.*** Except as specified in § 1090.300(a), diesel fuel must meet the ULSD per-gallon standards of this section.
(b) ***Sulfur standard.*** Maximum sulfur content of 15 ppm.
(c) ***Cetane index or aromatic content.*** Diesel fuel must meet one of the following standards:
(1) Minimum cetane index of 40.
(2) Maximum aromatic content of 35 volume percent.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

"(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:
(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
(2) Change only those emission-related settings that are permitted by the manufacturer; and
(3) Meet the requirements of 40 CFR part 1068, as they apply to you.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this

section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for the purpose specified in paragraph (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Emissions Units

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

National Emissions Standards for Hazardous Air Pollutants (NESHAP). – [40 CFR 63, Subpart ZZZZ]

§ 63.6585 Am I subject to this subpart?
"You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) ….
(b) …
(c) An area source of HAP emissions is a source that is not a major source."

§ 63.6590 What parts of my plant does this subpart cover?
This subpart applies to each affected source.

(a) ***Affected source.*** An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) ***Existing stationary RICE.***

(i) …

(ii) …

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(2) ***New stationary RICE.***

(i) …

(ii) …

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

…

(c) ***Stationary RICE subject to Regulations under 40 CFR Part 60***.
"An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60

subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;"

Note: For the two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024, and the one (1) 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009, the Permittee will meet the requirements of 40 CFR Part 63, Subpart ZZZZ, by meeting the requirements of 40 CFR Part 60, Subpart IIII.

§ 63.6603 What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first; 1 b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

[1] Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in table 2d of this subpart.

All reports and notifications required under 40 CFR 60 or 63, Subpart IIII, and ZZZZ, respectively shall be submitted to the Compliance Program of the Department’s Air and Radiation Management Administration.

Operational Requirements

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009

(1) The Permittee must operate and maintain the stationary compression ignition internal combustion engines in a manner that achieves the emission standards over the entire life of the engines. **[Reference: 40 CFR §60.4206]**

(2) The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §1090.305 as follows:

(a) Maximum sulfur content 15 ppm and

(b) Minimum cetane index of 40; or

(c) Maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §1090.305]

(3) The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission-related written instructions. **[Reference: 40 CFR §60.4211(a)(1)]**

(4) The Permittee may change only those emission-related settings that are permitted by the manufacturer. **[Reference: 40 CFR §60.4211(a)(2)]**

(5) The Permittee may not operate the engine for any purpose other than emergency operation, maintenance and testing, and emergency demand response as described below:

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) The permittee may operate the emergency stationary ICE as described below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency

demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Note: 40 CFR §60.4211(f)(3) allows for 50 hours of non-emergency use of the emergency generator, however, operation of this emergency generator for non-emergency use is prohibited by COMAR 26.11.36.03(A)(1).

Note: Effective May 7, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted.

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

(1) The Permittee shall meet the non-road diesel fuel sulfur requirements of 40 CFR §1090.305 as follows:

a. Maximum sulfur content 15 ppm and

b. Minimum cetane index of 40; or

c. Maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §1090.305]

(2) The Permittee shall, except during periods of startup, perform the following:

a. Change oil and filter every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first;

b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary;

c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary
[Reference: 40 CFR §63.6603]

(3) During periods of startup, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
[Reference: 40 CFR §63.6603]

Record Keeping and Reporting Requirements

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024;

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009; and

One (1) 100 hp diesel powered Wildcat Trommel Screener installed on December 15, 2004.

(1) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) The sulfur content of the fuel used; **[Reference: COMAR 26.11.09.07A(1)(c)]**

(b) The amount of fuel purchased annually;

(c) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §1090.305.

Two (2) 102 kW Kohler diesel fired emergency electric generators, installed on March 26, 2024; and

One (1) generator with a 175 hp, 6.8 liter diesel powered John Deere Engine installed on June 2009

(2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) Installation date of the diesel-fired generator;

(b) An operating log for the generator listing the dates, hours of operation, and reason for generator operation (i.e. maintenance, operational testing, power outage, etc.). **[Reference: COMAR 26.11.36.03E and 40 CFR §60.4214(b)]**

(c) The sulfur content of the fuel used; [Reference: COMAR 26.11.09.07A(1)(c)]

(d) The amount of fuel purchased annually;

(e) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §1090.305.

(f) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211.

(g) Other relevant information as required by the Department.

(2) No. 5 Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) X Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(4) Containers, reservoirs, or tanks used exclusively for:

(a) X Storage of butane, propane, or liquefied petroleum, or natural gas;
(b) X Storage of lubricating oils
(c) X Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

(A) **COMAR 26.11.06.08** – Nuisance
"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(B) **COMAR 26.11.06.09** – Odors
"A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

(C) **COMAR 26.11.15.05** – Control Technology Requirements
"A person who complies with the ambient impact requirement in Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique.
(3) Unless an existing installation is controlled using T-BACT, the degree of emission limitation required in order to demonstrate compliance with Regulation .06 of this chapter may not be affected by the amount of the installation's stack height that exceeds good engineering practice (GEP), or by any other dispersion technique."

(D) **COMAR 26.11.15.06** – Ambient Impact Requirement
1. "Except as provided in §B(3) of this regulation, a person may not cause or permit the discharge of a toxic air pollutant listed in COMAR 26.11.16.07 from an existing installation or source if total allowable emissions of that TAP for the premises will unreasonably endanger human health.
2. A person shall demonstrate compliance with §B(1) of this regulation using the procedures established in Regulation .07 of this chapter and COMAR 26.11.16.
3. A person who owns or operates an existing premises shall meet the requirements of §B(1) and (2) of this regulation for each TAP listed in COMAR 26.11.16.07 by the applicable compliance dates listed in COMAR 26.11.16.07, or not later than 2 years after becoming subject to this chapter, whichever is later."

For the Flares Only

(E) **COMAR 26.11.42** – Control of Methane Emissions from Municipal Solid Waste Landfills.

COMAR 26.11.42.01(A) – Applicability and Exemptions.
"This chapter applies to a person who owns or operates a municipal solid waste (MSW) landfill that has accepted waste after November 8, 1987."

COMAR 26.11.42.05(B)(2) – Standard and Requirements for Gas Collection and Control Systems. – Requirements for Enclosed Flares.
"(a) An owner or operator of a MSW landfill that routes landfill gas to an enclosed flare shall achieve a methane destruction efficiency of at least 99 percent by weight and meet the following specifications:

(i) The device shall be equipped with automatic dampers, an automatic shutdown device, a flame arrester, and continuous recording temperature sensors; and
(ii) The device shall have a sufficient flow of propane, natural gas, or another fuel source approved by the Department to the pilot light to prevent unburned collected methane from being emitted to the atmosphere during restart and startup.

(b) The owner or operator of a MSW landfill shall install, calibrate, operate and maintain the flare system in accordance with the manufacturer's specifications and if applicable, within the parameter ranges established in the landfill's permit to construct issued by the Department.

(c) An owner or operator that used an enclosed flare shall install, calibrate, and maintain a gas flow rate measuring device that either records the flow to the control device at least every 15 minutes or secures the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration."

(F) **COMAR 26.11.42.05(B)(7)(a) thru (k)** – Standard and Requirements for Gas Collection and Control Systems. – Performance Test Requirements.
"(a) The owner or operator shall conduct annual performance tests for any gas control device(s) subject to the requirements of §B(2), (3) & (4) of this regulation using the test methods identified in Regulation .11C of this chapter.

(b) An initial performance test shall be conducted within 180 days of start-up of the gas collection and control system.

(c) Following an initial performance test, the owner or operator shall conduct a complete annual performance test no later than 45 days following the 1-year anniversary date of the initial performance test.

(d) The owner or operator of an existing gas control device shall demonstrate compliance with this regulation no later than 180 days following the effective date of this regulation in accordance with the test methods and procedures specified in Regulation .11C of this regulation.

(e) The owner or operator shall conduct performance tests under conditions specified by the Department based on representative performance of the affected source for the period being tested.

(f) Representative conditions shall exclude periods of startup and shutdown unless specified by the Department.

(g) The owner or operator may not conduct performance tests during periods of malfunction.

(h) The owner or operator shall record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation.

(i) The owner or operator shall make available records necessary to determine the conditions of performance tests available upon request by the Department.

(j) If a gas control device remains in compliance after three consecutive performance tests, the owner or operator may conduct the performance test every 3 years.

(k) Once a gas control device is placed on the 3-year performance test schedule, if a subsequent performance test shows the gas collection and control system is out of compliance with the requirements of this regulation, the performance testing frequency shall return to annual."

(G) **COMAR 26.11.42.09(B)(1)** – Monitoring Requirements and Corrective Actions. – Gas Control System Equipment Monitoring.
"The owner or operator shall monitor the gas control system using the following procedures:
(1) For enclosed combustors (including enclosed flares), the following equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications:

(a) A temperature monitoring device equipped with a continuous recorder which has an accuracy of plus or minus (±) 1 percent of the temperature being measured expressed in degrees Celsius or Fahrenheit; and

(b) A device which records the gas flow to the control device(s) and bypass of the control device. The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes;

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; and

(iii) Perform a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(c) A temperature monitoring device is not required for boilers and process heaters with a design heat input capacity of 44 megawatts (150 MMBtu/hr) or greater."

(H) **COMAR 26.11.42.09(B)(9)** – Monitoring Requirements and Corrective Actions. – Gas Control System Equipment Monitoring.
"For a gas treatment system, the following equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications:

(a) A device which records the gas flow to the treatment system and bypass if applicable.

(b) The owner or operator shall:

(i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes;

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration; and

(iii) Perform a visual inspection of the seal or closure mechanism at least once every month to ensure that the valve is maintained in

the closed position and that the gas flow is not diverted through the bypass line."

(l) **COMAR 26.11.42.10** – Recordkeeping and Reporting Requirements.

COMAR 26.11.42.10B(1)(a), (b), and (m) – Recordkeeping Requirements.
"An owner or operator of a MSW landfill shall maintain the following records for at least 5 years:

(a) All gas collection system downtime exceeding 5 days, including dates of downtime, individual well shutdown and disconnection times, the reason for the downtime, and any corrective actions conducted in response to the downtime;

(b) All gas control system downtime in excess of 1 hour, the reason for the downtime, and the length of time the gas control system was shut down, and any corrective actions conducted in response to the downtime;"

…..

(m) Records of the gas control system equipment operating parameters specified to be monitored under Regulation .09B of this chapter as well as records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. The records shall include the following information:

(i) For enclosed flares, all 3-hour periods of operation during which the average temperature difference was more than 28ºC (50º F) below the average combustion temperature during the most recent performance test at which compliance with Regulations .05B(2) and (3) of this chapter was determined;"

COMAR 26.11.42.10C – Reporting Requirements.

COMAR 26.11.42.10C(2) – Equipment Removal Report.

"(a) A gas collection and control system equipment removal report shall be submitted to the Department 30 days prior to well capping, removal, or cessation of operation of the gas collection, treatment, or control system equipment.

(b) The report shall contain the following information:

(i) A copy of the closure notification submitted to the Department in accordance with §C(1) of this regulation;

(ii) A copy of the initial performance test report or other documentation demonstrating that the gas collection and control system has been installed and operated for a minimum of 15 years, unless the owner or operator can demonstrate that due to declining methane rates the MSW landfill is unable to operate the gas collection and control system for a 15-year period;"

(J) **COMAR 26.11.42.10C(7)** – Performance Test Report.

"(a) For a control system designed and operated to meet the requirements of this chapter, the owner or operator shall submit a Performance Test Report to the Department that establishes the reduction efficiency or parts per million by volume no later than 180 days after the initial startup of the approved control system using EPA Method 25 or 25C, 40 CFR Part 60, Appendix A.

(b) The owner or operator shall submit any additional performance test reports to the Department within 30 days after the date of completing each performance test, including any associated fuel analyses."

(c) The performance test report shall include the following information:

(i) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, all areas excluded from collection, and the proposed sites for the future collection system expansion;
(ii) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
(iii) The documentation of the presence of asbestos or non-decomposable material for each area from which collection wells have been excluded based on the presence of asbestos or non-decomposable material;
(iv) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;
(v) The process for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
(vi) The process for controlling off-site migration."

The Permittee shall follow the reporting procedures listed in COMAR 26.11.42.10 (A) and (A-1). Test results, reports, or other information, unless otherwise specified by the Department shall be submitted to:

Program Manager
Air Quality Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230
410-537-4225
Or electronically to:
MDEAIR.OTHERCOMPLIANCE@maryland.gov
[Reference: COMAR 26.11.42.10 (A) and (A-1)]

(K) **COMAR 26.11.42.11(C)(1)** – Test Methods and Procedures. – Determination of Control Device Destruction Efficiency.
"The following methods of analysis shall be used to determine the efficiency of the control device in reducing methane:
(1) Enclosed Combustors. One of the following test methods shall be used to determine the efficiency of the control device in reducing methane by at least 99 percent, or in reducing the outlet methane concentration for lean burn engines to less than 3,000 ppmv, dry basis, corrected to 15 percent oxygen:

(a) U.S. EPA Reference Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography;

(b) U.S. EPA Reference Method 25, Determination of Total Gaseous Nonmethane Organic Emissions as Carbon;

(c) U.S. EPA Reference Method 25A, Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer; or

(d) U.S. EPA Reference Method 25C, Determination of Nonmethane Organic Compounds in Landfill Gases."

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Prepared for

Wicomico County Department of Public Works
6948 Brick Kiln Road
Salisbury, Maryland 21801

PART 70 OPERATING PERMIT RENEWAL APPLICATION

Newland Park Landfill
Wicomico County, Maryland

Prepared by

Geosyntec consultants

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044

Project Number: ME0843M
Document Number: MD23017

March 2023

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Wicomico County, Maryland

PART I

APPLICATION COMPLETENESS CHECKLIST

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST

VI .Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

Cover Page

(**x**) Name and address of owner or operator, including telephone number.

(**x**) Name and address of facility, including the plant manager's name and telephone number.

(**x**) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

(**x**) The certification statement completed and signed by a responsible official.

Section 2 FACILITY DESCRIPTION SUMMARY

(**x**) A brief description of each of the source's process(es), including all applicable SIC codes and end products.

(**x**) Flow diagrams indicating all emissions units, emission points, and control devices.

(**x**) A plot plan of the entire facility.

(**x**) Emission Certification Report.

(**x**) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS –

This section must be completed for each emissions unit.

Part A

(**x**) Emissions unit number.

(**x**) Detailed description of unit, including all emission points.

(**x**) Federally enforceable limit(s) on the operating schedule.

(**x**) Fuel consumption information for <u>any</u> emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

(**x**) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.

(**x**) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(**x**) The frequency of submittal of the compliance demonstration during the permit term.

Part C

(**x**) Emissions unit number.

(**x**) Permit to construct number.

(**x**) Emissions point number(s).

(**x**) Date(s) the permit to construct was issued.

(**x**) Condition number(s) as indicated on the permit to construct.

(**x**) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

(**x**) Description of all alternate operating scenarios that apply to an emissions unit.

(**x**) Number assigned to each scenario.

(**x**) Emissions unit number.

(**x**) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E

(**x**) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.

(**x**) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.

(**x**) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(**x**) The frequency of submittal of the compliance demonstration during the permit term.

Section 4 CONTROL EQUIPMENT

(**x**) The type of each piece of air pollution control equipment

(**x**) The capture and control efficiencies of the control equipment.

Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

(**x**) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.

(**x**) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.

(**x**) Basis for all emission calculations.

Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

(**x**) An explanation of the proposed exemption.

Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

(**x**) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.

( ) Detailed description of methods to be used to achieve compliance.

( ) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

(**x**) Checklist of Insignificant Activities

( ) CAM Plan (If Applicable)

PART II

PART 70 PERMIT RENEWAL APPLICATION

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard ● Baltimore MD 21230
(410) 537-3000 ● 1-800-633-6101 ● http://www.mde.state.md.us

PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator: **Department of Public Works, Wicomico County, MD**
Street Address: **6948 Brick Kiln Road** 96
City: **Salisbury** State: **Maryland** Zip Code: **21803-0968**
Telephone Number: **(410) 548-4810** Fax Number: **(410) 548-4910**

Facility Information:

Name of Facility: **Newland Park Landfill**		
Street Address: **6948 Brick Kiln Road**		
City: **Salisbury**	State: **Maryland**	Zip Code: **21801**
Plant Manager: **Mark Whitelock**	Telephone Number: **(410) 548-4935**	Fax Number: **(410) 548-4935**
24-Hour Emergency Telephone Number for Air Pollution Matters: **9-1-1**		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.

SECTION 1. CERTIFICATION STATEMENTS

1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

You must complete a Section 7 form for each non-complying emissions unit.

3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under □112(r) of the Clean Air Act:

[ ] has been submitted;

[ ] will be submitted at a future date; or

[**X**] does not need to be submitted.

5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Heather Lankford 3/31/23

SIGNATURE DATE

Mark Whitelock / Heather Lankford

PRINTED NAME

Deputy Director of Public Works Wicomico County, MD

Acting Director of Public Works Wicomico County, MD

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

The facility is used as a collection center for disposal of municipal solid waste (i.e. a landfill). The primary air quality issue is emissions of landfill gas, a product of the natural decomposition of organic solid waste in a landfill.
The end products are landfill gas, products of landfill gas combustion, and leachate.

2. Facility-Wide Emissions

A This facility is required to obtain a Part 70 Operating Permit because it is:
Check appropriate box:

Actual Major
x Potential Major·
Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA

List the actual facility-wide emissions below:

PM10 **14.71** NOx **8.87** VOC **2.77** SOx **0.19** CO **4.46** HAPs **2.46**

Reported concentrations in tons/year in 2022

3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices; **(See Attachment 2)**
Emissions Certification Report (copy of the most recent submitted to the Department.) **(2022 Emissions Certification Report included as Attachment 3)**

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-01** 1a. Date of installation (month/year): **Began Operation in 1960**	2. MDE Registration No.:(if applicable) **9-0208**

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Emission Unit Number 1 (EU-01) consists of the waste mass at the Newland Park Landfill (NPLF). The NPLF property covers approximately 180 acres, of which 95 acres have been used for the disposal of municipal solid waste (MSW). The NPLF emissions are a result of the area of collected waste that is not covered by a geosynthetic membrane. The attached site plan shows the area that is not covered. The uncovered area of the NPLF (the emission unit for EU-01) is approximately 51.3 acres.

The NPLF is an active MSW landfill and has a design capacity of 6.24 million tons of MSW. The landfill is equipped with a voluntary active gas collection system.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: **24** hours/day **365** days/year

Batch Processes: _____hours/batch _____batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. /A		
2.		
3.		

6 Emissions in Tons:

A Actual Major: _____ Potential Major:_____**X**___ (note: before control device)

Actual Emissions: NOx_**0**_ SOx___**0**___ VOC__**2.51**__ PM10__**14.4**_ HAPs__**2.45**_

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-02** 1a. Date of installation (month/year): **2000, modified in 2002 and 2010**	2. MDE Registration No.:(if applicable) **9-0082**

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

EU-02 is a landfill gas flare system. Emissions from the flare system exhaust through a stack. The location of EU-02 is shown in the attached site plan.

The gas collected at the site is used by the adjacent landfill gas-to-energy (LFGTE) plant, and the flare only operates when the gas is not being used by the LFGTE plant. Since the LFGTE uses the majority of the gas, the flare rarely operates and the operating schedule is intermittent.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

	Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.	**N/A**		
2.			
3.			

6 Emissions in Tons:

A Actual Major: _____ Potential Major:_____**X**____ (note: before control device)

Actual Emissions: NOx_**0.13**_ SOx_**0.05**_ VOC_**0.004**_ PM10_**0.06**_ HAPs_**0.003**_

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-03** 1a. Date of installation (month/year): **September 2004**	2. MDE Registration No.:(if applicable) **9-0147**

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

EU-03 is a 760 horsepower (hp) diesel-powered tub grinder.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

	Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.	**Diesel**	**0.0015%**	**191.0 gal/yr**
2.			
3.			

6. Emissions in Tons:

A. Actual Major: _____ Potential Major:____**X**____ (note: before control device)

B. Actual Emissions: NOx_**1.35**_ SOx_**0.02**_ VOC_**0.04**_ PM10_**0.04**_ HAPs_**0.002**_

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-04** 1a. Date of installation (month/year): **December 19, 2018**	2 MDE Registration No.:(if applicable) **9-0186**

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

EU-04 is a horizontal grinder powered by a 755-hp diesel engine.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

	Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.	**Diesel**	**0.0015%**	**11,635 gal/yr**
2.			
3.			

6. Emissions in Tons:

A. Actual Major: _____ Potential Major:____**X**____ (note: before control device)

B. Actual Emissions: NOx_**7.39**_ SOx_**0.13**_ VOC_**0.22**_ PM10_**0.22**_ HAPs_**0.009**_

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-01 **General Reference: 40 CFR 60.16714(e)(1)(ii)**

Briefly describe the Emission Standard/Limit or Operational Limitation:

The permittee shall calculate the landfill's NMOC emission rate annually using procedures in 40 CFR 60.16718(a) until emission rate is equal to or greater than 37 tons/year (34 megagrams/year), or until the landfill is closed.

Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report: ____
X Annual Compliance Certification:**2022**
__ Semi-Annual Monitoring Report: ____

Methods used to demonstrate compliance:

Monitoring: Reference **N/A** Describe: _____

Testing: Reference **40 CFR 62.16718(a)(3)(iii); COMAR 26.11.03.06C**

Describe: **The permittee shall re-test site-specific NMOC every 5 years according to the methods in 40 CFR 62.16718(a)(3). As testing was most recently performed in 2020, testing will be required in 2025.**

Record Keeping Reference **40 CFR 62.758(a)**

Describe: **The permittee shall keep permanent records of maximum design capacity, current amount of waste in place, and year-by-year waste acceptance rate for 5 years. The records described above are kept on site.**

Reporting: Reference **40 CFR 60.752(b)(1)**

Describe: **The permittee shall submit annual NMOC emission rate reports to the EPA and the Department.**

Frequency of submittal of the compliance demonstration: Annually

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Facility-Wide **General Reference:** COMAR 26.11.06.02C(1)

Briefly describe the Emission Standard/Limit or Operational Limitation:

The permittee shall limit visible emissions to 20% opacity, other than water, in an uncombined form.

Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report: ____
X Annual Compliance Certification:**2022**
X Semi-Annual Monitoring Report: **2022**

Methods used to demonstrate compliance:

Monitoring: Reference: **COMAR 26.11.03.06C**

Describe: **The permittee shall prepare and maintain a plan that contains an explanation of the reasonable precautions or BMPs that will be used. The permittee shall perform semi-annual inspections of the facility to verify that the BMPs are being implemented.**

Testing: Reference :: **N/A** Describe:scribe: _____

Record Keeping: Reference **COMAR 26.11.03.06C**

Describe: **The permittee shall keep the results of semi-annual inspections for a period of five (5) years. The permittee shall maintain the written BMPs at the facility.**

Reporting: Reference **COMAR 26.11.03.06C**

Describe: **The permittee shall submit semi-annual monitoring reports to USEPA and the Department.**

Frequency of submittal of the compliance demonstration: Semi-annually

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-01 **General Reference: 40 CFR 60.752(b)(1)(ii)**

Briefly describe the Emission Standard/Limit or Operational Limitation:

The permittee shall calculate the landfill's NMOC emission rate annually using procedures in 40 CFR 60.754 until emission rate is equal to or greater than 37 tons/year, or until the landfill is closed.

Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report: ____
X Annual Compliance Certification:**2022**
__ Semi-Annual Monitoring Report: ____

Methods used to demonstrate compliance:

Monitoring: Reference: **N/A** Describe: _____

Testing: Reference _**40 CFR 62.16718(a)(3)(iii); COMAR 26.11.03.06C**

Describe: **The permittee shall re-test site-specific NMOC every 5 years according to the methods in 40 CFR 62.16718(a)(3). As testing was most recently performed in 2020, testing will be required in 2025.**

Record Keeping: Reference **40 CFR 62.758(a)**

Describe: **The permittee shall keep permanent records of maximum design capacity, current amount of waste in place, and year-by-year waste acceptance rate for 5 years. The records described above are kept on site.**

Reporting: Reference **40 CFR 60.752(b)(1)**

Describe: **The permittee shall submit annual NMOC emission rate reports to the EPA and the Department.**

Frequency of submittal of the compliance demonstration: Annually

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: Facility Wide **General Reference: COMAR 26.11.06.03D(2)**

Briefly describe the Emission Standard/Limit or Operational Limitation:

The permittee shall not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report: ____
X Annual Compliance Certification: **2022**
X Semi-Annual Monitoring Report: **2022**

Methods used to demonstrate compliance:

Monitoring: Reference: **COMAR 26.11.03.06C**

Describe: **The permittee shall prepare and maintain a plan that contains an explanation of the BMPs that will be used to prevent particulate matter from being airborne.**

Testing: Reference **N/A**

Describe:

Record Keeping: Reference **COMAR 26.11.03.06C**

Reporting: Reference **N/A**

Describe: **The permittee shall keep the results of semi-annual inspections for a period of five (5) years. The permittee shall maintain the written BMPs at the facility.**

Frequency of submittal of the compliance demonstration: Semi-annually

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-03 **General Reference: COMAR 26.11.06.02C(1) COMAR 26.11.09.05E**

Briefly describe the Emission Standard/Limit or Operational Limitation:
The Permittee shall not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. FOR ENGINE ONLY: The Permittee shall not cause or permit the discharge of emissions from any engine, (1) operating at idle, greater than 10 percent opacity; and (2) operating at other than idle conditions, greater than 40 percent opacity. The Permittee shall not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds "distillate fuel oils, 0.3 percent". [COMAR 26.11.09.07A(1)]
Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report: ____
X Annual Compliance Certification: **2022**
X Semi-Annual Monitoring Report: **2022**

Methods used to demonstrate compliance:

Monitoring: Reference: **No Requirements**

Describe: **The permittee shall operate and maintain the tub grinder in accordance with the manufacturer's recommendations. The permittee shall only burn diesel fuel in the engine, operate and maintain the engine to prevent visible emissions, and operate the grinder no more than 1,500 hours for any year.**

Testing: Reference **N/A**

Describe:

Record Keeping: Reference **None**

Describe: **The permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of operating engine hours of the grinder, amount of fuel combusted and engine operating hours, and fuel supplier's certification of sulfur content of the fuel.**

Reporting: Reference **N/A**

Frequency of submittal of the compliance demonstration: Semi-annually

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-04

General Reference: COMAR 26.11.06.02C(1)
COMAR 26.11.09.05E

Briefly describe the Emission Standard/Limit or Operational Limitation: **The Permittee shall not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity. FOR ENGINE ONLY: The Permittee shall not cause or permit the discharge of emissions from any engine, (1) operating at idle, greater than 10 percent opacity; and (2) operating at other than idle conditions, greater than 40 percent opacity. The Permittee shall not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds "distillate fuel oils, 0.3 percent". [COMAR 26.11.09.07A(1)]**
Permit Shield Request: **Yes**

Compliance Demonstration:

Check appropriate reports required to be submitted:
__ Quarterly Monitoring Report:_____
X Annual Compliance Certification:**2022**
X Semi-Annual Monitoring Report: **2022**

Methods used to demonstrate compliance:

Monitoring: Reference: **None**

Describe:**The permittee shall operate and maintain the horizontal grinder in accordance with the manufacturer's recommendations.**

Testing: Reference **N/A**

Describe:

Record Keeping: Reference **None**

Describe:**The permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of operating hours of the screener, amount of fuel combusted and engine operating hours, and fuel supplier's certification of sulfur content of the fuel.**

Reporting: Reference**N/A**

Frequency of submittal of the compliance demonstration: Semi-annually

SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: _____Permit to Construct No. _____

Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion
		NOT APPLICABLE	

SECTION 3D. Emissions **ALTERNATE OPERATING SCENARIOS**

Unit No.: EU-02

Briefly describe any alternate operating scenarios. Assign a number to each scenario for identification purposes.

Scenario EU-2.A: When considering EU-2 (the flare), EU-2.A would be to change the working hours of the flare from 24 hours per day, 365 days per year, to operating when the landfill gas is NOT directed to a nearby LFGTE facility operated by Ingeco (Permit No. 24-045-0287). The flare operating hours were recorded and reported in an annual Emissions Certificate Report. It should be noted that EU-2.A is currently the default scenario.

SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO

Scenario No.: Not Applicable

Emissions Unit No.: Facility Wide General Reference: _____

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

Not Applicable.

Compliance Demonstration

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

Frequency of submittal of the compliance demonstration: _____

SECTION 4. CONTROL EQUIPMENT

1. Associated Emissions Units No. : **9-0082**	2. Emissions Point No.: **EU-02**

3. Type and Description of Control Equipment:

Landfill gas flare Model PCF 61816 by LFG Specialties, Inc.

4. Pollutants Controlled:	Control Efficiency:
Landfill gas consisting of approximately 50% (volume) methane, 50% (volume) carbon dioxide, and trace amounts of non-methane organic compound (NMOC.	**98%**

5. Capture Efficiency: **55-75%**

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

Pollutant					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #		**NOT APPLICABLE**			
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions					
Total					

SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.

1. Applicable Requirement:

No exemptions claimed.

2. Brief Description:

_____

_____

_____

3. Reasons for Proposed Exemption or Justification of Non-applicability:

_____

_____

_____

_____

_____

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

1. Emissions Unit #	Anticipated Compliance Date
Facility Wide	

Applicable Federally Enforceable Requirement being Violated:

Not Applicable.

2. Description of Plan to Achieve Compliance:

_____

_____

_____

_____

_____

_____

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

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STATE-ONLY ENFORCEABLE REQUIREMENTS

Facility Information:

Name of Facility: **Newland Park Landfill** County: **Wicomico**
Premises Number:
Street Address: **6948 Brick Kiln Road, Salisbury, Maryland 21801**
24-hour Emergency Telephone Number for Air Pollution Matters: **9-1-1**
Type of Equipment (List Significant Units): **Municipal solid waste landfill, landfill gas flare, diesel grinder (750 hp and diesel grinder (755 hp).**

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: 9-0208

Emissions Unit No.: EU-01 General Reference: COMAR 26.11.06.08; COMAR 26.11.06.09

Briefly describe the requirement and the emissions limit (if applicable):

The permittee shall not discharge emissions beyond property boundary in such a manner that a nuisance or air pollution is created.

Methods used to demonstrate compliance:

Lack of complaints by neighbors implies compliance with this condition.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: 9-0208

Emissions Unit No.: EU-01 General Reference: COMAR 26.11.15.06

Briefly describe the requirement and the emissions limit (if applicable):

The Permittee shall not discharge of toxic air pollutants to the extent that such emission will unreasonably endanger human health.

Methods used to demonstrate compliance:

When planning or applying for permits to construct, modify, or operate any new installation or source, the Permittee also demonstrates that toxic air pollutants will not endanger human health. See Emissions Certification Report in Attachment 3.

PART III

CHECK-OFF LIST OF EMISSION UNITS AND ACTIVITIES EXEMPT FROM THE PART 70 PERMIT APPLICATION

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST

III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

(1) No. ___ Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

(2) No. ___ Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;

(3) No. **2** Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts)of power output

(4) **5** Space heaters utilizing direct heat transfer and used solely for comfort heat;

(5) ___ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(6) No. __ Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

(7) ___ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;

(8) ___ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;

(9) ___ Confection cookers where the products are edible and intended for human consumption;

(10) ___ Die casting machines;

(11) ___ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;

(12) **X** Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(13) ___ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(14) ___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;

(15) ___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;

(16) Containers, reservoirs, or tanks used exclusively for:

(a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

(b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;

(c) _X_ Storage of butane, propane, or liquefied petroleum, or natural gas;

(d) No. _X_ Storage of lubricating oils:

(e) No. ___ Unheated storage of VOC with an initial boiling point of 300 °F (

(f) No. ___ Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,

(g) No. _X_ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(h) No. ___ The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(17) ___ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride,

or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

(a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;

(b) ___ Magnesium or any alloy containing over 50 percent magnesium;

(c) ___ Lead or any alloy containing over 50 percent lead;

(d) ___ Tin or any alloy containing over 50 percent tin;

(e) ___ Zinc or any alloy containing over 50 percent zinc;

(f) ___ Copper;

(g) ____ Precious metals;

(19) ____ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(20) ___ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(21) ____ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(22) ___ Potable water treatment equipment, not including air stripping equipment;

(23) ___ Firing and testing of military weapons and explosives;

(24) ___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(25) ____ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(26) ____ Grain, metal, or mineral extrusion presses;

(27) ____ Breweries with an annual beer production less than 60,000 barrels;

(28) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(29) ____ Laboratory fume hoods and vents;

(30) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

(31) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

(32) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. ___ _____

No. ___ _____

No. ___ _____

ADDITIONAL INFORMATION ON INSIGNIFICANT SOURCE LIST

Item No.	Description
(3)	1 Generator -6.8 liter John Deere Engine, approximately 175 HP 1 Wildcat Trommel Screener, approximately 100 HP
(4)	5 buildings with propane space heaters
(12)	2 drill presses and 1 table saw
(16)(c)	14 propane tanks
(16)(d)	Lubricating Oils: 500 Gallons of motor oil 300 Gallons of hydraulic oil 5 drums of miscelleanous oils
(16)(d)	11 cans of gasoline

Details on John Deere 175 HP Emergency Generator

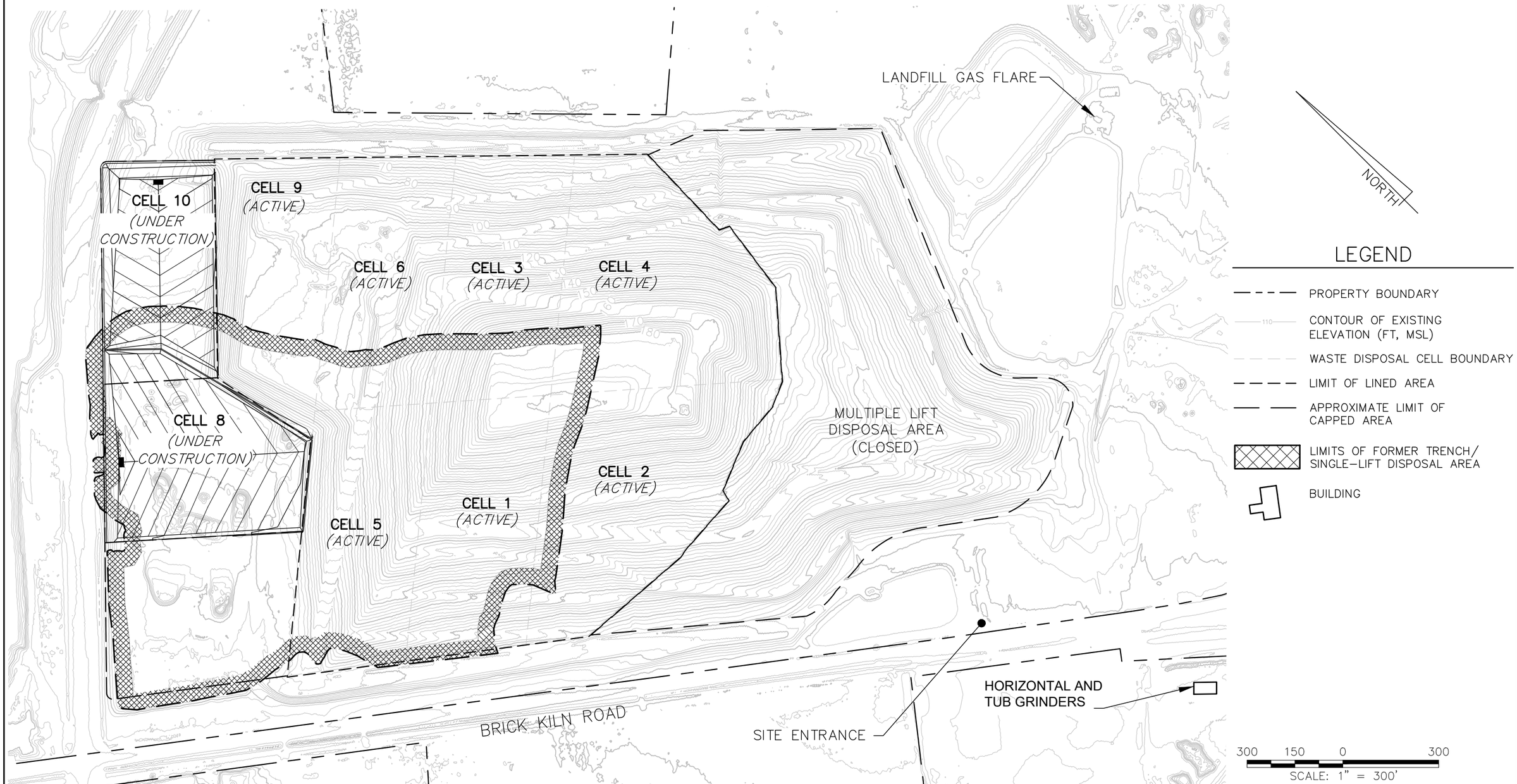
Manufacturer: John Deere Power Systems
Engine Model: 6068HF285K<L
Engine Family: 9JDXL06.8104
Horsepower: 175
Date Installed: 6/16/09
Operating Schedule: Every Tuesday for 20min, and as needed during power outage
Fuel Usage: 5 gallons per hour
Emission Certs/Estimates: See Attached

PART IV

ATTACHMENTS

ATTACHMENT 1

FACILITY SITE PLAN



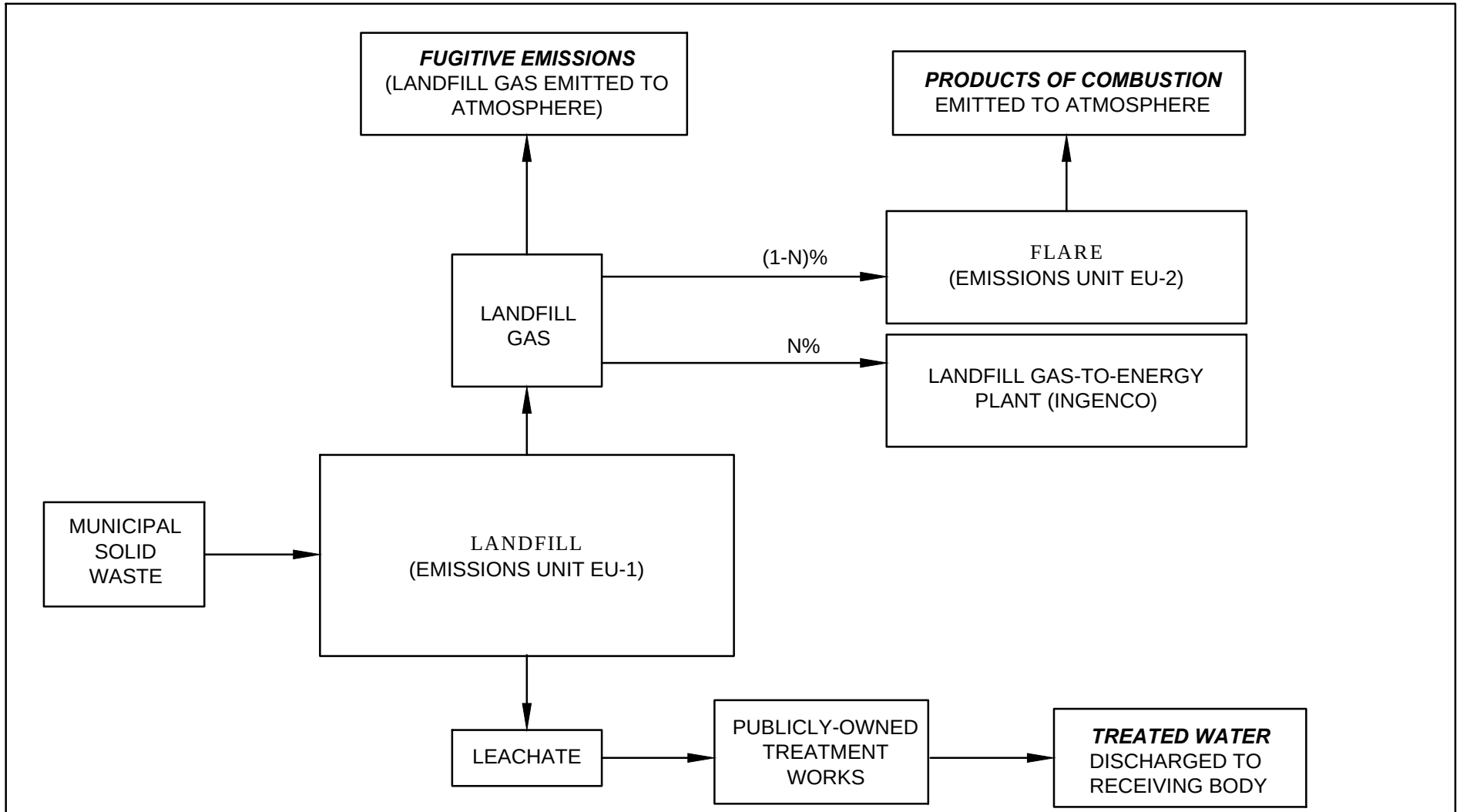
PART 70
PERMIT RENEWAL APPLICATION
SITE PLAN

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	FEBRUARY 2023
PROJECT NO.	ME0843
DOCUMENT NO.	MD23017
FILE NO.	ME0843M8f001
FIGURE NO.	1

ATTACHMENT 2

PROCESS FLOW DIAGRAM



PART 70
PERMIT RENEWAL APPLICATION
PROCESS FLOW DIAGRAM

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	March 2023
PROJECT NO.	ME0843M
DOCUMENT NO.	MD23017
FILE NO.	0928f002
FIGURE NO.	2

P:\cadd\0newland park\0928\0928f002.dwg, 1, 3/28/2018 1:04:16 PM, bferrick

ATTACHMENT 3

2022 EMISSIONS CERTIFICATION REPORT

Prepared for

Wicomico County Department of Public Works
6948 Brick Kiln Road
Salisbury, Maryland 21801

EMISSIONS CERTIFICATION REPORT

CALENDAR YEAR 2022

Newland Park Landfill
Wicomico County, Maryland

Prepared by

Geosyntec consultants

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044

Project Number: ME0843M
Document Number: MD23015

March 2023

TABLE OF CONTENTS

Geosyntec consultants

Maryland Department of the Environment
Emissions Certification Report Forms (Form 1 – Form 6)

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard, Suite 715 • Baltimore Maryland 21230-1720
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us
Air and Radiation Management Administration
Air Quality Compliance Program
410-537-3220

FORM 1:

GENERAL FACILITY INFORMATION
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

A. FACILITY IDENTIFICATION	Do Not Write in This Space
Facility Name Newland Park Landfill	Date Received Regional
Address 6948 Brick Kiln Road	Date Received State
City Salisbury County Wicomico Zip Code 21801	AIRS Code
B. Briefly describe the major function of the facility	FINDS Code
Municipal solid waste landfill and recycling collection facility	SIC Code
	Facility Number:
	TEMPO ID:

C. SEASONAL PRODUCTION (%, if applicable)

Winter *(Dec.-Feb.)*	Spring *(Mar – May)*	Summer *(Jun – Aug)*	Fall *(Sept – Nov)*

Reviewed by:

Name Date

D. Explain any increases or decreases in emissions from the previous calendar year for each registration at this facility.

E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)

Control Device	Capture Efficiency	Removal Efficiency
Landfill Gas Flare	66%	98%

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of ____ pages (including attachments), and certify that the information is correct to the best of my knowledge.

Mark Whitelock
Name (Print/Type)

Deputy Director of Public Works
Title

3/28/23
Date

Signature

410-548-1985
Telephone

1/09/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Newland Park Landfill Facility ID: 22-9-0208 Pollutant: Volatile Organic Compounds (VOCs)

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
Active Landfill EU-01		N/A	S			24	7	52	365	N/A	24	00:00	24:00	C3
			F	2.51	13.74					13.74				
Landfill Gas Flare System 9-0082/EU-02		N/A	S	0.004	0.07	0.5	2.3	44	103	0.07	0.5	N/A	N/A	C1/C3
			F							N/A				
Tub Grinder 9-0147/EU-03		Diesel	S			2	5	15	75	N/A	2	N/A	N/A	C3
			F	0.04	1.06					1.06				
Horizontal Grinder 9-0186/EU-04		Diesel	S			6	4	34	136	N/A	6	N/A	N/A	C3
			F	0.22	3.19					3.19				
			S											
			F											
			S											
			F											
			S											
			F											
			S											
			F											
			S											
Total				2.77	18.07					18.07				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Newland Park Landfill Facility ID: 22-9-0208 Pollutant: Nitrogen Oxides (NOx)

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
Landfill Gas Flare System 9-0082/EU-02		N/A	S	0.13	2.54	0.5	2.3	44	103	2.54	0.5	N/A	N/A	C1/C3
			F							N/A				
Tub Grinder 9-0147/EU-03		Diesel	S			2	5	15	75	N/A	2	N/A	N/A	C3
			F	1.35	36.00					36.00				
Horizontal Grinder 9-0186/EU-04		Diesel	S			6	4	34	136	N/A	6	N/A	N/A	C3
			F	7.39	108.72					108.72				
			S											
			F											
			S											
			F											
			S											
			F											
Total				8.87	147.26					147.26				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

1/09/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Newland Park Landfill Facility ID: 22-9-0208 Pollutant: Carbon Monoxide (CO)

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
Landfill Gas Flare System 9-0082/EU-02		N/A	S	2.46	47.70	0.5	2.3	44	103	N/A	0.5	N/A	N/A	C1/C3
			F							N/A				
Tub Grinder 9-0147/EU-03		Diesel	S			2	5	15	75	N/A	2	N/A	N/A	C3
			F	0.31	8.25					N/A				
Horizontal Grinder 9-0186/EU-04		Diesel	S			6	4	34	136	N/A	6	N/A	N/A	C3
			F	1.69	24.92					N/A				
			S											
			F											
			S											
			F											
			S											
			F											
Total				4.46	80.87					N/A				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

1/09/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Newland Park Landfill Facility ID: 22-9-0208 Pollutant: Sulfur Oxides (SOx)

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
Landfill Gas Flare System 9-0082/EU-02		N/A	S	0.05	0.89	0.5	2.3	44	103	N/A	0.5	N/A	N/A	C1/C3
			F							N/A				
Tub Grinder 9-0147/EU-03		Diesel	S			2	5	15	75	N/A	2	N/A	N/A	C3
			F	0.02	0.61					N/A				
Horizontal Grinder 9-0186/EU-04		Diesel	S			6	4	34	136	N/A	6	N/A	N/A	C3
			F	0.12	1.83					N/A				
			S											
			F											
			S											
			F											
			S											
			F											
Total				0.19	3.33					N/A				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

1/09/08

FORM 3: PM

EMISSIONS CERTIFICATION REPORT

Particulate Matter - Filterable

Calendar Year: 2022

Facility Name: Newland Park Landfill **Facility ID:** 22-9-0208 **Pollutant:** Particulate Matter - Filterable

Equipment Description/ Registration No.	SCC Number	Fuel		PM – Filterable		PM 10 –Filterable		PM 2.5 – Filterable		PM Condensable		Operation	Emissions Methods
				Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Days/yr	
Active MSW Landfill 9-0208/EU-01		N/A	S									306	C3
			F	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Landfill Gas Flare System 9-0082/EU-02		N/A	S	0.03	0.54	0.03	0.54	0.03	0.54	0.03	0.54	103	C3
			F										
Tub Grinder 9-0147/EU-03		Diesel	S									75	C3
			F	0.04	0.93	0.04	0.93	0.04	0.93	0.00	0.12		
Horizontal Grinder 9-0186/EU-04		Diesel	S									136	C3
			F	0.19	2.82	0.19	2.82	0.19	2.82	0.02	0.35		
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
Total				0.25	4.30	0.25	4.30	0.25	4.30	0.06	1.01		

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 3: PM

EMISSIONS CERTIFICATION REPORT

Particulate Matter - Primary

Calendar Year: 2022

Facility Name: Newland Park Landfill **Facility ID:** 22-9-0208 **Pollutant:** Particulate Matter - Primary

Equipment Description/ Registration No.	SCC Number	Fuel		PM – Filterable		PM 10 –Filterable		PM 2.5 – Filterable		PM Condensable		Operation	Emissions Methods
				Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Days/yr	
Active MSW Landfill		N/A	S									306	C3
9-0208/EU-01			F	14.4	94.12	14.4	94.12	14.4	94.12	N/A	N/A		
Landfill Gas Flare System		N/A	S	0.06	1.08	0.06	1.08	0.06	1.108	N/A	N/A	103	C3
9-0082/EU-02			F										
Tub Grinder		Diesel	S									75	C3
9-0147/EU-03			F	0.04	1.05	0.04	1.05	0.04	1.05	N/A	N/A		
Horizontal Grinder		Diesel	S									136	C3
9-0186/EU-04			F	0.22	3.17	0.22	3.17	0.22	3.17	N/A	N/A		
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
Total				14.71	99.42	14.71	99.42	14.71	99.42	N/A	N/A		

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 4:

TOXIC AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Acrylonitrile*

Equipment Description/ Registration Number[1]	Actual Emissions				
	Tons/yr	Lbs/day	Lbs/hr	Control Device**	% Efficiency
Landfill Gas Flare System 9-0082/EU-02	1.69E-05	3.27E-04	6.55E-04	O	99.7
Active MSW Landfill (Fugitive Emissions) 9-0208/EU-01	7.73E-02	4.23E-01	1.76E-02	N/A	N/A
TOTALS	7.73E-02	4.24E-01	1.83E-02		

* Please attach all calculations.

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Benzene*

Equipment Description/ Registration Number[1]	Actual Emissions				
	Tons/yr	Lbs/day	Lbs/hr	Control Device**	% Efficiency
Landfill Gas Flare System 9-0082/EU-02	7.45E-06	1.45E-04	2.89E-04	O	99.7
Active MSW Landfill (Fugitive Emissions) 9-0208/EU-01	3.41E-02	1.87E-01	7.79E-03	N/A	N/A
Tub Grinder 9-0147/EU-03	3.06E-04	8.15E-03	4.07E-03	N/A	N/A
Horizontal Grinder 9-0186/EU-04	1.67E-03	2.46E-02	4.10E-03	N/A	N/A
TOTALS	3.61E-02	2.20E-01	1.63E-02		

* Please attach all calculations.

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Chloroethane*

Equipment Description/ Registration Number[1]	Actual Emissions				
	Tons/yr	Lbs/day	Lbs/hr	Control Device**	% Efficiency
Landfill Gas Flare System 9-0082/EU-02	2.70E-05	5.24E-04	1.05E-03	O	98
Active MSW Landfill (Fugitive Emissions) 9-0208/EU-01	1.86E-02	1.02E-01	4.24E-03	N/A	N/A
TOTALS	1.86E-02	1.02E-01	5.28E-03		

* Please attach all calculations.

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Vinyl Chloride*

Equipment Description/ Registration Number[1]	Actual Emissions				
	Tons/yr	Lbs/day	Lbs/hr	Control Device**	% Efficiency
Landfill Gas Flare System 9-0082/EU-02	1.53E-04	2.98E-03	5.96E-03	O	98
Active MSW Landfill (Fugitive Emissions) 9-0208/EU-01	1.06E-01	5.78E-01	2.41E-02	N/A	N/A
TOTALS	1.06E-01	5.81E-01	3.01E-02		

* Please attach all calculations.

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 5:

BILLABLE TOXIC AIR POLLUTANTS – NOT APPLICABLE **Calendar Year: 2022**

Emissions Certification Report

Facility Name: _Newland Park Landfill_____ Facility ID#: 22-9-0208

Chemical Name	CAS Number		Actual Emissions				Estimation Method
			Tons/year	Lbs/day	Lbs/hr		
carbon disulfide	75-15-0	S					
		F					
carbonyl sulfide	463-58-1	S					
		F					
chlorine	7782-50-5	S					
		F					
cyanide compounds	57-12-5	S					
		F					
hydrochloric acid	7647-01-0	S					
		F					
hydrogen fluoride	7664-39-3	S					
		F					
methyl chloroform	71-55-6	S					
		F					
methylene chloride	75-09-2	S					
		F					
perchloroethylene	127-18-4	S					
		F					
phosphine	7803-51-2	S					
		F					
titanium tetrachloride	7550-45-0	S					
		F					
TOTALS							

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by engineering judgment
C5-User calculated based on a State or local agency factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standards

This form is to include only the chemicals identified.

PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emissions figures shown above.

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Carbon Dioxide*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
Landfill Gas Flare System 9-0082/EU-02	365	7,082	14,164
Active MSW Landfill 9-0208/EU-01	5,225	28,629	1,193
Tub Grinder 9-0147/EU-03	64	1,712	856
Horizontal Grinder 9-0186/EU-04	3,519	51,747	8,625
TOTALS	9,173	89,171	24,838

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Methane (CH4)*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
Landfill Gas Flare System 9-0082/EU-02	0.02	0.44	0.87
Active MSW Landfill 9-0208/EU-01	1,905	10,436	435
Tub Grinder 9-0147/EU-03	0.00	0.07	0.03
Horizontal Grinder 9-0186/EU-04	0.01	0.21	0.03
TOTALS	1,905	10,437	436

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2022

EMISSIONS CERTIFICATION REPORT

Facility Name: Newland Park Landfill **Facility ID**: 22-9-0208 **Pollutant**: Nitrous Oxide (N2O)*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
Landfill Gas Flare System 9-0082/EU-02	4.41E-03	8.57E-02	1.71E-01
Active MSW Landfill 9-0208/EU-01	N/A	N/A	N/A
Tub Grinder 9-0147/EU-03	5.21E-04	1.39E-02	6.95E-03
Horizontal Grinder 9-0186/EU-04	2.85E-03	4.20E-02	6.99E-03
TOTALS	7.79E-03	1.42E-01	1.85E-01

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

Geosyntec consultants

Emissions Calculation Summary

Criteria Pollutants Emissions

A. Fugitive Landfill Emissions & Flare Emissions

1. Total LFG Volume

The USEPA Landfill Gas Emission Model (LandGEM) Version 3.02, 2005, was used to estimate the total LFG generation for 2022. The model utilizes certain paramters, as well as historical waste acceptance rates to estimate the LFG generation rate. The model parameters used to estimate the 2022 LFG generation were as follows:

Reporting Year	2022		
2022 Waste Acceptance	148,142	tons	
L_o =	100	m^3/Mg refuse	*(as per AP-42 Chapter 2.4)*
k =	0.04	yr^{-1}	*(as per AP-42 Chapter 2.4)*

Newland Park Landfill (NPLF) records indicated a 2022 waste acceptance of 148141.81 tons. The waste acceptance value was used, along with prior year waste acceptance rates, to estimate methane rates, to estimate methane and LFG generation rates of:

2022 Methane Generation =	7,599,000	m^3/yr	*(see LandGEM output, Appendix A)*
2022 LFG Generation =	15,200,000	m^3/yr	*(see LandGEM output, Appendix A)*

LFG is collected at NPLF and is either sent to the flare or is utilized by Ingenco for energy production in a beneficial reuse application. The amount of LFG collected during 2022 was estimated using digital flow meter data and data from the on-site INGENCO co-generation station:

2022 Total Flow to INGENCO Plant =	343,487,482	SCF/yr	
=	9,726,482	m^3/yr	*(343487482 SCF/yr/35.315 SCF/m^3)*
2022 Total Flow to Flare =	13,102,000	SCF/yr	
=	371,007	m^3/yr	*(13102000 SCF/yr/35.315 SCF/m^3)*
2022 Total LFG Collected =	356,589,482	SCF/yr	
=	10,097,490	m^3/yr	*(356589482 SCF/yr/35.315 SCF/m^3)*

The 2022 landfill gas collection system efficiency is calculated as follows:

Collection Efficiency =	2022 Total LFG Collected / 2022 LFG Generation				***(Eq. 1.1)***
=	10,097,490	m3/yr	/	15,200,000	m3/yr
=	0.6643				

In other words, an estimated 66% of the gas generated was collected by the system.

Criteria Pollutants Emissions

2. VOC Emissions from the Flare and from the Active Landfill (EU-01/EU-02)

As calculated using the USEPA LandGEM model, the total estimated NMOC generation rate was as follows.

2022 NMOC Generation =	17.38	Mg/yr	*(see LandGEM output, Appendix A)*	
=	19.16	tons/yr	*(17.38 Mg/yr * 1.1023 ton/Mg*	

According to AP-42 Section 2.4, Table 2.4-2, for no/unknown co-disposal sites such as NPLF, the default VOC content is 39% by weight of the NMOC content. Accordingtly, VOC generation was estimated as:

2022 VOC Generation =	2022 NMOC Generation * 39%			***(Eq. 2.1)***
=	19.16 tons/yr * 0.39			
=	7.47	tons/yr		
=	40.94	lbs/day	*(7.47 tons/yr * 2000 lbs/ton) / 365 days/yr)*	

VOC emissions are divided into fugitive emissions and those collected and sent to the flare or beneficial reuse application. Fugitive VOC emissions were estimated using the Collection Efficiency, as follows:

2022 Fugitive VOC Emissions =	2022 VOC Generation * (1 - Collection Efficiency)			***(Eq. 2.2)***
=	7.47 tons/yr * (1 - 0.66)			
=	2.51	tons/yr		
=	13.74	lbs/day	*(2.51 tons/yr * 2000 lbs/ton) / 365 days/yr)*	

Likewise, the amount of VOC collected was estimated by:

2022 Collected VOC =	2022 VOC Generation * Collection Efficiency			***(Eq. 2.3)***
=	7.47 tons/yr * 0.66			
=	4.96	tons/yr		
=	27.20	lbs/day	*(4.96 tons/yr * 2000 lbs/ton) / 365 days/yr)*	

The gas that is collected by the control system is either sent to the flare or the the landfill gas to energy plant (LFGTE plant) operated by INGENCO. The percentage of the total estimated LFG collected that was sent to the flare is calculated below.

% of Collected LFG to Flare =	2022 Total Flow to Flare / 2022 Total LFG Collected			***(Eq. 2.4)***
=	371,007	m3/yr /	10,097,490 m3/yr	
=	3.67%			

A review of site data indicates that gas was collected 365 days in 2022. The flare operation schedule was irregular and is described below.

2022 Flare Operation =	103	days/yr during which the flare operated
=	44	wks/yr during which the flare operated at least one day
=	2.3	days/wk average during weeks which the flare operated
=	0.5	hrs/day on average during days which the flare operated

Therefore, assuming the AP-42 default flare control efficiency of 98% for halogenated species, the 2022 VOC Emissions from the flare were calculated as follows:

2022 Flare VOC Emissions =	2022 Collected VOC * % of Collected LFG to Flare * (1 - 0.98)			***(Eq. 2.5)***
=	4.96 tons/yr * 0.04 * (1 - 0.98)			
=	3.65E-03	tons/yr		
=	0.07	lbs/day on average when operated	*(0.00 tons/yr * 2000 lbs/ton) /103 days/yr)*	

Criteria Pollutants Emissions

3. NOx Emissions from the Flare (EU-02)

NOx emissions are estimated using the 2022 flow of LFG to the flare, assuming LFG was ~50% Methane, and using the NOx emission factor (EF) for flares provided in AP-42, Chapter 2.4, Table 2.4-5.

2022 NOx Emissions = EF * 2022 Flow to Flare * %CH4 * 1 ton/2000 lbs ***(Eq. 3.1)***
= 40 lb/10^6 SCF CH4 * 13102000 SCF/yr * 50% CH4 * 1 ton/2000 lbs
= 0.13 tons/yr
= 2.54 lbs/day average when operated *(0.13 tons/yr * 2000 lbs/ton) /103 days/yr)*

NOx emissions are created as a result of combustion of LFG in the flare. As such, there are no fugitive emissons of NOx from the site.

4. CO Emissions from the Flare (EU-02)

CO emissions are estimated using the 2022 flow of LFG to the flare, assuming LFG is ~50% Methane, and using the CO EF for flares provided in AP-42, Chapter 2.4, Table 2.4-5.

2022 CO Emissions = EF * 2022 Flow to Flare * %CH4 * 1 ton/2000 lbs ***(Eq. 4.1)***
= 750 lb/10^6 SCF CH4 * 13102000 SCF/yr * 50% CH4 * 1 ton/2000 lbs
= 2.46 tons/yr
= 47.70 lbs/day average when operated *(2.46 tons/yr * 2000 lbs/ton) /103 days/yr)*

5. Primary Particulate Matter Emissions from the Flare (EU-02)

PM emissions were estimated using the 2022 flow of LFG to the flare, assuming LFG is ~50% Methane, and using the CO EF for flares provided in AP-42, Chapter 2.4, Table 2.4-5.

2022 PM Emissions = EF * 2022 Flow to Flare * %CH4 * 1 ton/2000 lbs ***(Eq. 5.1)***
= 17 lb/10^6 SCF CH4 * 13102000 SCF/yr * 50% * 1 ton/2000 lbs
= 0.06 tons/yr
= 1.08 lbs/day average when operated *(0.06 tons/yr * 2000 lbs/ton) /103 days/yr)*

It is conservatively assumed that all PM = PM_{10} = $PM_{2.5}$.

6. Filterable and Condensible Particulate Matter Emissions from the Flare (EU-02)

The EPA does not provide emission factors for condensible and filterable PM from flaring of LFG. Thus, for the purposes of this assessment it is assumed that 50% of PM was condensible and 50% was filterable. These were estimated as follows:

2022 Filterable PM Emissions = 2022 PM Emissions * 50% ***(Eq. 6.1)***
= 0.06 tons/yr * 0.50
= 0.03 tons/yr
= 0.54 lbs/day average when operated *(0.03 tons/yr * 2000 lbs/ton) /103 days/yr)*

2022 Condesible PM Emissions = 2022 PM Emissions * 50% ***(Eq. 6.2)***
= 0.06 tons/yr * 0.50
= 0.03 tons/yr
= 0.54 lbs/day average when operated *(0.03 tons/yr * 2000 lbs/ton) /103 days/yr)*

It is conservatively assumed that all PM = PM_{10} = $PM_{2.5}$.

Criteria Pollutants Emissions

7. Primary Particulate Matter Emissions from the Active Landfill Working Surface Operations (EU-01)

Fugitive particulate matter emissions from working surface operations were calculated using the methodology outlined in AP-42 Chapter 13.2.3. As per this AP-42 section, the emissions factor for construction activities is 1.2 tons TSP/acre/month of activity. According to NPLF site data, a conservative estimate for the area that is disturbed at one time is approximately 4 acres. Those data were used to estimate PM emissions from working surface operations as follows:

Open Active Landfill Area = 4

Uncontrolled PM Emissions = 1.2 tons/acre-month * 4 acres * 12 months/yr *(Eq. 7.1)*

= 57.60 tons/yr

According to the facility, the landfill had the following operating schedule in 2022:

2022 Landfill Operation = 306 days/yr

= 51 wks/yr

= 6.00 days/wk

= 9.00 hrs/day

Assuming the effectiveness of the application of water to the working face is 75%, the controlled PM emission are estimated as:

Controlled PM Emissions = Uncontrolled PM Emissions * (1 - 0.75) *(Eq. 7.2)*

= 57.60 tons/yr * (1 - 0.75)

= 14.4 tons/yr

= 94.12 lbs/day average when operated *(14.40 tons/yr * 2000 lbs/ton) /306 days/yr)*

It is conservatively assumed that all TSP=PM = PM_{10} = $PM_{2.5}$.

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8. SO2 Emissions from the Flare (EU-02)

SO2 emissions were calculated in accordance with the methodology described in AP-42, Chapter 2.4. The AP-42 default concentration of 46.9 ppmv was used to calculate the emission rate of sulfur as follows:

Sulfur Volumetric Emission Rate (Qs) = 1.82 * 2022 Flow to Flare * %CH4 * 46.9 / 1,000,000 *(Eq. 8.1)*

= 1.82 * 371007 m3/yr * 0.5 * 46.9/1000000

= 15.83 m3/yr

Given a Molecular Weight (MW) of sulfur of 32 g/mol, a LFG temperature of 25 deg C, and a R of 8.205x10^-5 m^3-atm/gmol-deg K, the sulfur mass emission rate is calculated as follows:

Sulfur Mass Emission Rate (Ms) = Qs * [(MW * 1 atm) / (8.205x10^-5 m^3-atm/gmol-deg K * 1000 g/kg * (273 + 25) deg K)]

= 20.72 kg/yr

This value is converted to SO2, and to tons, as follows:

2022 SO2 emissions = Ms * 2 (ratio of molecular weight of SO2 to S) * 1 ton/907.18 kg *(Eq. 8.2)*

= 20.72 kg/yr * 2 * 1 ton/907.18 kg

= 0.05 tons/yr

= 0.89 lbs/day average when operated *(0.05 tons/yr * 2000 lbs/ton) /103 days/yr)*

Criteria Pollutants Emissions

9. Greenhouse Gas Emissions from the Active Landfill (EU-01)

Greenhouse gases (GHG) were emitted from the flare (CO2, N2O, and CH4 not combusted) and as fugitive emissions from the landfill (CO2 and CH4). Combustion GHG emissions were estimated using the emissions factors in Tables C-1 and C-2 of 40 CFR Part 98, Subpart C.

Default HHV of Landfill Gas =	4.85E-04	MMBtu/SCF Landfill Gas
CO2 EF =	52.07	kg/MMBtu
=	5.74E-02	tons/MMbtu
CH4 EF =	3.20E-03	kg/MMBtu
=	3.53E-06	tons/MMbtu
N2O EF =	6.30E-04	kg/MMBtu
=	6.94E-07	tons/MMbtu

The emissions of GHG from the flare were calculated on a mass basis as follows.

2022 CO2 Emissions = CO2 EF * Default HHV of Biogas * 2022 Total Flow to Flare ***(Eq. 9.1)***
= 0.0574 tons/MMbtu * 0.000485 MMBtu/SCF Landfill Gas * 13102000 SCF/yr
= 364.73 tons/yr
= 7,082.13 lbs/day average when operated *(364.73 tons/yr * 2000 lbs/ton) /103 days/yr)*
= 14,164.26 lbs/hr average when operated *(7082.13 lbs/day average when operated /0.5 hrs/day)*

2022 CH4 Emissions = CH4 EF * Default HHV of Biogas * 2022 Total Flow to Flare ***(Eq. 9.2)***
= 0.0000035 tons/MMbtu * 0.000485 MMBtu/SCF Landfill Gas * 13102000 SCF/yr
= 0.02 tons/yr
= 0.44 lbs/day average when operated *(0.02 tons/yr * 2000 lbs/ton) /103 days/yr)*
= 0.87 lbs/hr average when operated *(0.44 lbs/day average when operated /0.5 hrs/day)*

2022 N2O Emissions = N2O EF * Default HHV of Biogas * 2022 Total Flow to Flare ***(Eq. 9.3)***
= 0.000000694 tons/MMbtu * 0.000485 MMBtu/SCF Landfill Gas * 13102000 SCF/yr
= 0.00 tons/yr
= 0.09 lbs/day average when operated *(0.00 tons/yr * 2000 lbs/ton) /103 days/yr)*
= 1.71E-01 lbs/hr average when operated *(0.09 lbs/day average when operated /0.5 hrs/day)*

Landfill fugitive GHG Emissions were calculated, assuming LFG was approximately 50 % CO2 and 50 % CH4, as follows:

2022 Fugitive CO2 Emissions = 2022 LFG Generation * 0.5 * (1 - Collection Efficiency) * 1000 L/m3 * 1 mol/23.689 L * 44.01 g/mol * 1 kg/1000 g * 1 ton/907.18 kg ***(Eq. 9.4)***
= 15200000 m3/yr * 0.5 * (1 - 0.66) * 1000 L/m3 * 1 mol/23.689 L * 44.01 g/mol * 1 kg/1000 g * 1 ton/907.18 kg
= 5,224.74 tons/yr
= 28,628.74 lbs/day average when operated *(5224.74 tons/yr * 2000 lbs/ton) / 365 days/yr)*
= 1,192.86 lbs/hr average when operated *(28628.74 lbs/day average when operated / 24 hrs/day)*

2022 Fugitive CH4 Emissions = 2022 LFG Generation * 0.5 * (1 - Collection Efficiency) * 1000 L/m3 * 1 mol/23.689 L * 16.043 g/mol * 1 kg/1000 g * 1 ton/907.18 kg ***(Eq. 9.5)***
= 15200000 m3/yr * 0.5 * (1 - 0.66) * 1000 L/m3 * 1 mol/23.689 L * 16.043 g/mol * 1 kg/1000 g * 1 ton/907.18 kg
= 1,904.58 tons/yr
= 10,436.06 lbs/day average when operated *(1904.58 tons/yr * 2000 lbs/ton) / 365 days/yr)*
= 434.84 lbs/hr average when operated *(10436.06 lbs/day average when operated / 24 hrs/day)*

Criteria Pollutants Emissions

	Tons/yr	lb/day	lb/hr
2022 Total Flare CO2 Emissions	365	7,082	14,164
2022 Total Flare CH4 Emissions	0.02	0.44	0.87
2022 Total Flare N2O Emissions	4.41E-03	8.57E-02	1.71E-01

	Tons/yr	lb/day	lb/hr
2022 Total Landfill Fugitive CO2 Emissions	5,225	28,629	1,193
2022 Total Landfill Fugitive CH4 Emissions	1,905	10,436	435

	Tons/yr	lb/day	lb/hr
2022 Total Landfill CO2 Emissions	5,589	35,711	15,357
2022 Total Landfill CH4 Emissions	1,905	10,436	436
2022 Total Landfill N2O Emissions	4.41E-03	8.57E-02	1.71E-01

Criteria Pollutants Emissions

B1. Tub Grinder Emissions (EU-03)

During 2022 the facility operated a tub grinder with a 750 horsepower diesel fired engine. The approximate 2022 operating schedule for the grinder was as follows:

2022 Tub Grinder Operation =	75	days/yr	2022 Total Diesel Fuel Consumed =	191.0 gallons
=	15	wks/yr		
=	5	days/wk		
=	2	hrs/day		
=	150	Total Hours		

Emissions from the grinder were estimated using the emissions factors for large (>600 hp) stationary diesel engines in AP-42 Table 3.4-1, as follows:

Given:

AP-42 Emission Factors (Table 3.4-1)

NOx EF =	0.024	lb/hp-hr	
CO EF =	5.50E-03	lb/hp-hr	
SOx EF =	4.05E-04	lb/hp-hr	*(assumed Sulfur Concentration = 500 ppm, 0.05%)*
PM EF =	7.00E-04	lb/hp-hr	*(total)*
$PM_{Condensible}$ EF =	7.73E-05	lb/hp-hr	*(PM EF * ratio of Condensible PM to total PM from AP-42 Table 3.4-2)*
VOC (TOC) =	7.05E-04	lb/hp-hr	

Example Calculations

Emissions (tons/year) = 750 hp * EF (lb/hr-hr) * 2 hr/day * 5 days/wk * 15 weeks/yr * 1 ton/2000 lb

Emissions (lb/day) = (Emissions (tons/year) *2,000 lb/ton) / (102 days/yr)

$PM_{Filterable}$ = PM - $PM_{Condensible}$

Criteria Pollutant Emissions Summary

	tons/year	lb/day
NOx	1.35	36.00
CO	0.31	8.25
SOx	0.02	0.61
PM_{Total}	0.04	1.05
$PM_{Condensible}$	0.00	0.12
$PM_{Filterable}$	0.04	0.93
VOC	0.04	1.06

Greenhouse gases (GHG) were also emitted from the engine. Combustion GHG emissions were estimated using the emissions factors in Tables C-1 and C-2 of 40 CFR Part 98, Subpart C. To convert from fuel input to to power output, a brake-specific fuel consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Chapter 3.3, Table 3.4-1.

CO2 EF =	73.96	kg/MMBtu
=	1.14	lb/hp-hr
CH4 EF =	3.00E-03	kg/MMBtu
=	4.63E-05	lb/hp-hr
N2O EF =	6.00E-04	kg/MMBtu
=	9.26E-06	lb/hp-hr

GHG Emissions Summary

	tons/year	lb/day	lb/hr
CO2	64	1712	856
CH4	2.60E-03	6.95E-02	3.47E-02
N2O	5.21E-04	1.39E-02	6.95E-03

Criteria Pollutants Emissions

C. Horizontal Grinder

During 2022 the facility operated a horizontal grinder equipped with a 755 horsepower diesel fired engine. The approximate operating schedule for the grinder was as follows:

Horizontal Grinder Operation =	136	days/yr	Total Diesel Fuel Consumed =	11,635.0	gallons
=	34	wks/yr			
=	4	days/wk			
=	6	hrs/day			
=	816	Total Hours			

Emissions from the grinder were estimated using the emissions factors for large (>600 hp) stationary diesel engines in AP-42 Table 3.4-1, as follows:

Given:

AP-42 Emission Factors (Table 3.4-1)

NOx EF =	0.024	lb/hp-hr	
CO EF =	5.50E-03	lb/hp-hr	
SOx EF =	4.05E-04	lb/hp-hr	*(assumed Sulfur Concentration = 500 ppm, 0.05%)*
PM EF =	7.00E-04	lb/hp-hr	*(total)*
$PM_{Condensible}$ EF =	7.73E-05	lb/hp-hr	*(PM EF * ratio of Condensible PM to total PM from AP-42 Table 3.4-2)*
VOC (TOC) =	7.05E-04	lb/hp-hr	

Example Calculations

Emissions (tons/year) = 755 hp * EF (lb/hr-hr) * 6 hr/day * 4 days/wk * 34 weeks/yr * 1 ton/2000 lb

Emissions (lb/day) = (Emissions (tons/year) *2,000 lb/ton) / (102 days/yr)

$PM_{Filterable}$ = PM - $PM_{Condensible}$

Criteria Pollutant Emissions Summary

	tons/year	lb/day
NOx	7.39	108.72
CO	1.69	24.92
SOx	0.12	1.83
PM_{Total}	0.22	3.17
$PM_{Condensible}$	0.02	0.35
$PM_{Filterable}$	0.19	2.82
VOC	0.22	3.19

Greenhouse gases (GHG) were also emitted from the engine. Combustion GHG emissions were estimated using the emissions factors in Tables C-1 and C-2 of 40 CFR Part 98, Subpart C. To convert from fuel input to to power output, a brake-specific fuel consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Chapter 3.3, Table 3.4-1.

CO2 EF =	73.96	kg/MMBtu
=	1.14	lb/hp-hr
CH4 EF =	3.00E-03	kg/MMBtu
=	4.63E-05	lb/hp-hr
N2O EF =	6.00E-04	kg/MMBtu
=	9.26E-06	lb/hp-hr

GHG Emissions Summary

	tons/year	lb/day	lb/hr
CO2	3519	51747	8625
CH4	1.43E-02	2.10E-01	3.50E-02
N2O	2.85E-03	4.20E-02	6.99E-03

Criteria Pollutants Emissions

D. Reporting Form Summary

Form 2: Volatile Organic Compounds

Equipment/ Emission Unit	Emission Location	Actual Emissions		Operating Schedule				TOSD	Operating Schedule	
		tons/year	lbs/day	Hrs/day	Dys/wk	Wk/yr	Days/yr	lbs/dy	Hrs/day	Start/End
Flare EU-02	Stack	0.004	0.07	0.5	2.3	44	103	0.07	0.5	
	Fugitive									
Active Landfill EU-01	Stack			24	7	52	365		24	00:00/ 24:00
	Fugitive	2.51	13.74					13.74		
Tub Grinder EU-03	Stack			2	5	15	75		2	
	Fugitive	0.04	1.06					1.06		
Horizontal Grinder EU-04	Stack			6	4	34	136		6	
	Fugitive	0.22	3.19					3.19		
Total		**2.77**	**18.07**					**18.07**		

Form 2: Nitrogen Oxides (NOx)

Equipment/ Emission Unit	Emission Location	Actual Emissions		Operating Schedule				TOSD	Operating Schedule	
		tons/year	lbs/day	Hrs/day	Dys/wk	Wk/yr	Days/yr	lbs/dy	Hrs/day	Start/End
Flare EU-02	Stack	0.13	2.54	0.5	2.3	44	103	2.54	0.5	
	Fugitive									
Tub Grinder EU-03	Stack			2	5	15	75		2	
	Fugitive	1.35	36.00					36.00		
Horizontal Grinder EU-04	Stack			6	4	34	136		6	
	Fugitive	7.39	108.72					108.72		
Total		**8.87**	**147.26**					**147.26**		

Form 2: Carbon Monoxide (CO)

Equipment/ Emission Unit	Emission Location	Actual Emissions		Operating Schedule				TOSD	Operating Schedule	
		tons/year	lbs/day	Hrs/day	Dys/wk	Wk/yr	Days/yr	lbs/dy	Hrs/day	Start/End
Flare EU-02	Stack	2.46	47.70	0.5	2.3	44	103		0.5	
	Fugitive									
Tub Grinder EU-03	Stack			2	5	15	75		2	
	Fugitive	0.31	8.25							
Horizontal Grinder EU-04	Stack			6	4	34	136		6	
	Fugitive	1.69	24.92							
Total		**4.46**	**80.87**							

Form 2: Sulfur Oxides (SOx)

Equipment/ Emission Unit	Emission Location	Actual Emissions		Operating Schedule				TOSD	Operating Schedule	
		tons/year	lbs/day	Hrs/day	Dys/wk	Wk/yr	Days/yr	lbs/dy	Hrs/day	Start/End
Flare EU-02	Stack	0.05	0.89	0.5	2.3	44	103		0.5	
	Fugitive									
Tub Grinder EU-03	Stack			2	5	15	75		2	
	Fugitive	0.02	0.61							
Horizontal Grinder EU-04	Stack			6	4	34	136		6	
	Fugitive	0.12	1.83							
Total		**0.19**	**3.33**							

Criteria Pollutants Emissions

Form 3: Particulate Matter - Filterable

Equipment/ Emission Unit	Emission Location	PMtotal - Filterable		PM 10 Filterable		PM 2.5 Filterable		PM 10 Condensable		Operation
		tons/year	lbs/day	tons/year	lbs/day	tons/year	lbs/day	tons/year	lbs/day	days/yr
Flare EU-02	Stack	0.03	0.54	0.03	0.54	0.03	0.54	0.03	0.54	103
	Fugitive									
Active Landfill EU-01	Stack									306
	Fugitive									
Tub Grinder EU-03	Stack									75
	Fugitive	0.04	0.93	0.04	0.93	0.04	0.93	0.00	0.12	
Horizontal Grinder EU-04	Stack									136
	Fugitive	0.19	2.82	0.19	2.82	0.19	2.82	0.02	0.35	
Total		**0.25**	**4.30**	**0.25**	**4.30**	**0.25**	**4.30**	**0.06**	**1.01**	

Form 3: Particulate Matter - Primary

Equipment/ Emission Unit	Emission Location	PMtotal - Primary		PM 10 Primary		PM 2.5 Primary		PM 10 Condensable		Operation
		tons/year	lbs/day	tons/year	lbs/day	tons/year	lbs/day	tons/year	lbs/day	days/yr
Flare EU-02	Stack	0.06	1.08	0.06	1.08	0.06	1.08			103
	Fugitive									
Active Landfill EU-01	Stack									306
	Fugitive	14.4	94.12	14.4	94.12	14.4	94.12			
Tub Grinder EU-03	Stack									75
	Fugitive	0.04	1.05	0.04	1.05	0.04	1.05			
Horizontal Grinder EU-04	Stack									136
	Fugitive	0.22	3.17	0.22	3.17	0.22	3.17			
Total		**14.71**	**99.42**	**14.71**	**99.42**	**14.71**	**99.42**			

Form 6: Greenhouse Gases - Carbon Dioxide (CO2)

Equipment/ Emission Unit	Actual Emissions		
	tons/yr	lbs/day	lbs/hr
Flare EU-02	365	7,082	14,164
Active Landfill EU-01	5,225	28,629	1,193
Tub Grinder EU-03	64	1,712	856
Horizontal Grinder EU-04	3,519	51,747	8,625
	9,173	**89,171**	**24,838**

Criteria Pollutants Emissions

Form 6: Greenhouse Gases - Methane (CH4)

Equipment/ Emission Unit	Actual Emissions		
	tons/yr	lbs/day	lbs/hr
Flare EU-02	0.02	0.44	0.87
Active Landfill EU-01	1,905	10,436	435
Tub Grinder EU-03	0.00	0.07	0.03
Horizontal Grinder	0.01	0.21	0.03
Total	**1,905**	**10,437**	**436**

Form 6: Greenhouse Gases - Nitrous Oxide (N2O)

Equipment/ Emission Unit	Actual Emissions		
	tons/yr	lbs/day	lbs/hr
Flare EU-02	4.41E-03	8.57E-02	1.71E-01
Active Landfill EU-01			
Tub Grinder EU-03	5.21E-04	1.39E-02	6.95E-03
Horizontal Grinder EU-04	2.85E-03	4.20E-02	6.99E-03
	7.79E-03	**1.42E-01**	**1.85E-01**

HAP/TAP Emissions

A. Fugitive Landfill, Flare, Tub Grinder, and Horizontal Grinder Emissions

1. Total LFG Volume

The USEPA Landfill Gas Emission Model (LandGEM) Version 3.02, 2005, was used to estimate the total LFG generation for 2022. The model utilizes certain paramters, as well as historical waste acceptance rates to estimate the LFG generation rate. The model parameters used to estimate the 2022 LFG generation were as follows:

Reporting Year	2022		
2022 Waste Acceptance	148,142		
L_o =	100	m^3/Mg refuse	*(as per AP-42 Chapter 2.4)*
k =	0.04	yr^{-1}	*(as per AP-42 Chapter 2.4)*

Newland Park Landfill (NPLF) records indicate a 2022 waste acceptance rate of 148141.81 tons. The 2022 waste acceptance value was used, along with prior years waste acceptancerates, to estimate methane and LFG generation rates of:

2022 Methane Generation =	7,599,000	m^3/yr	*(see LandGEM output, Appendix A)*
2022 LFG Generation =	15,200,000	m^3/yr	*(see LandGEM output, Appendix A)*

LFG is collected at NPLF and is either sent to the flare or is utilized by Ingenco for energy production in a beneficial reuse application. The amount of LFG collected during 2022 was estimated using the digital flow meter data.

2022 Total Flow to Plant =	343,487,482	SCF	
=	9,726,482	m^3/yr	*(343487482 SCF/35.315 SCF/m^3)*
2022 Total Flow to Flare =	13,102,000	SCF	
=	371,007	m^3/yr	*(13102000 SCF/35.315 SCF/m^3)*
2022 Total LFG Collected =	356,589,482	SCF	
=	10,097,490	m^3/yr	*(356589482 SCF/35.315 SCF/m^3)*

The 2022 landfill gas collection system efficiency is calculated as follows:

Collection Efficiency =	2022 Total LFG Collected / 2022 LFG Generation					***(Eq. 1.1)***
=	10,097,490	m3/yr	/	15,200,000	m3/yr	
=	0.6643					

In other words, 66% of the gas generated is collected by the system.

HAP/TAP Emissions

2. Fugitive HAP/TAP Emissions

Fugitive LFG Emission Rate: 493,681 **ft³/day** = 5,102,510 **m³/yr**
180,193,452 **ft³/yr**

Fugitive HAP/TAP Compound Summary

COMPOUND	Median ppmv	Molecular Weight	Gravimetric Concentration (mg/M³)	Fugitive Emissions (tons/yr)	lb/day*	lb/hr**
1,1,1-Trichloroethane (methyl chloroform)	0.48	133.41	2.62	1.47E-02	8.07E-02	3.36E-03
1,1,2,2-Tetrachloroethane	1.11	167.85	7.62	4.29E-02	2.35E-01	9.79E-03
1,1-Dichloroethane (ethylidene dichloride)	2.35	98.97	9.51	5.35E-02	2.93E-01	1.22E-02
1,1-Dichloroethene (vinylidene chloride)	0.20	96.94	0.79	4.46E-03	2.44E-02	1.02E-03
1,2-Dichloroethane (ethylene dichloride)	0.41	98.96	1.66	9.33E-03	5.11E-02	2.13E-03
1,2-Dichloropropane (propylene dichloride)	0.18	112.98	0.83	4.68E-03	2.56E-02	1.07E-03
Acrylonitrile	6.33	53.06	13.74	7.73E-02	4.23E-01	1.76E-02
Benzene	1.90	78.11	6.07	3.41E-02	1.87E-01	7.79E-03
Carbon disulfide	0.58	76.13	1.81	1.02E-02	5.57E-02	2.32E-03
Carbon tetrachloride	0.004	153.84	0.03	1.42E-04	7.76E-04	3.23E-05
Carbonyl sulfide	0.49	60.07	1.20	6.77E-03	3.71E-02	1.55E-03
Chlorobenzene	0.25	112.56	1.15	6.47E-03	3.55E-02	1.48E-03
Chloroethane (ethyl chloride)	1.25	64.52	3.30	1.86E-02	1.02E-01	4.24E-03
Chloroform	0.03	119.39	0.15	8.24E-04	4.51E-03	1.88E-04
Chloromethane (methyl chloride)	1.21	50.49	2.50	1.41E-02	7.70E-02	3.21E-03
Dichlorobenzene	0.21	147.00	1.26	7.10E-03	3.89E-02	1.62E-03
Dichloromethane (methylene chloride)	14.3	84.94	49.68	2.79E-01	1.53E+00	6.38E-02
Ethylbenzene	4.61	106.16	20.02	1.13E-01	6.17E-01	2.57E-02
Ethylene dibromide	0.001	187.88	0.01	4.32E-05	2.37E-04	9.87E-06
Hexane	6.57	86.18	23.16	1.30E-01	7.14E-01	2.97E-02
Mercury (total)	2.92E-04	200.61	0.002	1.35E-05	7.38E-05	3.08E-06
Methyl ethyl ketone	7.09	72.11	20.91	1.18E-01	6.44E-01	2.69E-02
Methyl isobutyl ketone	1.87	100.16	7.66	4.31E-02	2.36E-01	9.84E-03
Perchloroethylene (tetrachloroethene)	3.73	165.83	25.30	1.42E-01	7.80E-01	3.25E-02
Toluene	39.30	92.13	148.09	8.33E-01	4.56E+00	1.90E-01
Trichloroethylene (trichloroethene)	2.82	131.38	15.15	8.52E-02	4.67E-01	1.95E-02
Vinyl chloride	7.34	62.50	18.76	1.06E-01	5.78E-01	2.41E-02
Xylene	12.1	106.16	52.54	2.95E-01	1.62E+00	6.75E-02
			Total HAPs	**2.45**	**13.42**	**0.56**

Notes:
* Assumes fugitive emissions are emitted 365 days per year
** Assumes fugitive emissions are emitted 24 hours per day
- Information obtained from EPA AP-42 Section 2.4 on NMOC concentrations and HAPs & LandGEM.
- Gravimetric Concentration = (Median ppmv * Molecular Weight) / 24.45
- Fugitive Emissions (tons/yr) = Gravimetric Concentration (mg/m^3) * Fugitive LFG Emission Rate (m^3/yr) * (1 g/1000 mg) * (1 Mg/10^6 g) * (1.1023 tons/1 Mg)

HAP/TAP Emissions

3. HAP/TAP Emissions from Flare

Actual Flare Gas Rate: 127,204 **ft³/day when operating** = 371,007 **m³/yr**
13,102,000 **ft³/yr**

Actual Controlled HAP/TAP Compound Summary

COMPOUND	Median ppmv	Molecular Weight	Gravimetric Concentration (mg/M³)	Uncontrolled Emissions (tons/yr)	Control Efficiency (wt %)	Controlled Emissions tons/year	Controlled Emissions lb/day*	Controlled Emissions lb/hr**
1,1,1-Trichloroethane (methyl chloroform)	0.48	133.41	2.62	1.07E-03	98.0	2.14E-05	4.16E-04	8.32E-04
1,1,2,2-Tetrachloroethane	1.11	167.85	7.62	3.12E-03	98.0	6.23E-05	1.21E-03	2.42E-03
1,1-Dichloroethane (ethylidene dichloride)	2.35	98.97	9.51	3.89E-03	98.0	7.78E-05	1.51E-03	3.02E-03
1,1-Dichloroethene (vinylidene chloride)	0.20	96.94	0.79	3.24E-04	98.0	6.49E-06	1.26E-04	2.52E-04
1,2-Dichloroethane (ethylene dichloride)	0.41	98.96	1.66	6.79E-04	98.0	1.36E-05	2.64E-04	5.27E-04
1,2-Dichloropropane (propylene dichloride)	0.18	112.98	0.83	3.40E-04	98.0	6.80E-06	1.32E-04	2.64E-04
Acrylonitrile	6.33	53.06	13.74	5.62E-03	99.7	1.69E-05	3.27E-04	6.55E-04
Benzene	1.90	78.11	6.07	2.48E-03	99.7	7.45E-06	1.45E-04	2.89E-04
Carbon disulfide	0.58	76.13	1.81	7.39E-04	99.7	2.22E-06	4.30E-05	8.60E-05
Carbon tetrachloride	0.004	153.84	0.03	1.03E-05	98.0	2.06E-07	4.00E-06	7.99E-06
Carbonyl sulfide	0.49	60.07	1.20	4.92E-04	99.7	1.48E-06	2.87E-05	5.74E-05
Chlorobenzene	0.25	112.56	1.15	4.71E-04	98.0	9.41E-06	1.83E-04	3.66E-04
Chloroethane (ethyl chloride)	1.25	64.52	3.30	1.35E-03	98.0	2.70E-05	5.24E-04	1.05E-03
Chloroform	0.03	119.39	0.15	5.99E-05	98.0	1.20E-06	2.33E-05	4.65E-05
Chloromethane (methyl chloride)	1.21	50.49	2.50	1.02E-03	98.0	2.04E-05	3.97E-04	7.94E-04
Dichlorobenzene	0.21	147.00	1.26	5.16E-04	98.0	1.03E-05	2.01E-04	4.01E-04
Dichloromethane (methylene chloride)	14.3	84.94	49.68	2.03E-02	98.0	4.06E-04	7.89E-03	1.58E-02
Ethylbenzene	4.61	106.16	20.02	8.19E-03	99.7	2.46E-05	4.77E-04	9.54E-04
Ethylene dibromide	0.001	187.88	0.01	3.14E-06	98.0	6.29E-08	1.22E-06	2.44E-06
Hexane	6.57	86.18	23.16	9.47E-03	99.7	2.84E-05	5.52E-04	1.10E-03
Mercury (total)	2.92E-04	200.61	0.002	9.80E-07	0.0	9.80E-07	1.90E-05	3.81E-05
Methyl ethyl ketone	7.09	72.11	20.91	8.55E-03	99.7	2.57E-05	4.98E-04	9.96E-04
Methyl isobutyl ketone	1.87	100.16	7.66	3.13E-03	99.7	9.40E-06	1.82E-04	3.65E-04
Perchloroethylene (tetrachloroethene)	3.73	165.83	25.30	1.03E-02	98.0	2.07E-04	4.02E-03	8.04E-03
Toluene	39.30	92.13	148.09	6.06E-02	98.0	1.21E-03	2.35E-02	4.70E-02
Trichloroethylene (trichloroethene)	2.82	131.38	15.15	6.20E-03	98.0	1.24E-04	2.41E-03	4.81E-03
Vinyl chloride	7.34	62.50	18.76	7.67E-03	98.0	1.53E-04	2.98E-03	5.96E-03
Xylene	12.1	106.16	52.54	2.15E-02	99.7	6.45E-05	1.25E-03	2.50E-03
					Total HAPs	2.54E-03	3.97E-02	0.62

Notes:
* Assumes flare operated on 103 days of the year
** Assumes flare operated 0.5 hours per day on average when operated
- Information obtained from EPA AP-42 Section 2.4 on NMOC concentrations and HAPs & LandGEM.
AP-42 Control Efficiencies for flares: 98.0 % for halogenated species
99.7 % for non-halogenated species
- Gravimetric Concentration = (Median ppmv * Molecular Weight) / 24.45
- Uncontrolled Emissions (tons/yr) = Gravimetric Concentration (mg/m^3) *Actual LFG Collection Rate (m^3/yr) * (1 g/1000 mg) * (1 Mg/10^6 g) * (1.1023 tons/1 Mg)
- Controlled Emissions = Uncontrolled Emissions * (1 - Control Efficiency)

HAP/TAP Emissions

4. HAP/TAP Emissions Tub Grinder

During 2022 the facility operated a tub grinder with a 750 horsepower diesel fired engine. The approximate 2022 operating schedule for the grinder was 2 hours/day, 5 days/week, 15 weeks/year, for a total of 75 days/year. HAP/TAP emissions from the grinder are estimated using the emissions factors in AP-42 Table 3.4-3 and 3.4-4. These emission factors are based on fuel input (lb/MMBtu). To convert from fuel input to to power output, a brake-specific fuel consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Chapter 3.3, Table 3.3-2.

	AP-42 Emission Factor		Emissions		
COMPOUND	**(lb/MMBtu)**	**(lb/hp-hr)**	**tons/year**	**lb/day**	**lb/hr**
Benzene	7.76E-04	5.43E-06	3.06E-04	8.15E-03	4.07E-03
Toluene	2.81E-04	1.97E-06	1.11E-04	2.95E-03	1.48E-03
Xylenes	1.93E-04	1.35E-06	7.60E-05	2.03E-03	1.01E-03
Propylene	2.79E-03	1.95E-05	1.10E-03	2.93E-02	1.46E-02
Formaldehyde	7.89E-05	5.52E-07	3.11E-05	8.28E-04	4.14E-04
Acetaldehyde	2.52E-05	1.76E-07	9.92E-06	2.65E-04	1.32E-04
Acrolein	7.88E-06	5.52E-08	3.10E-06	8.27E-05	4.14E-05
Naphthalene	1.30E-04	9.10E-07	5.12E-05	1.37E-03	6.83E-04
Acenaphthylene	9.23E-06	6.46E-08	3.63E-06	9.69E-05	4.85E-05
Acenaphthene	4.68E-06	3.28E-08	1.84E-06	4.91E-05	2.46E-05
Fluorene	1.28E-05	8.96E-08	5.04E-06	1.34E-04	6.72E-05
Phenanthrene	4.08E-05	2.86E-07	1.61E-05	4.28E-04	2.14E-04
Anthracene	1.23E-06	8.61E-09	4.84E-07	1.29E-05	6.46E-06
Fluoranthene	4.03E-06	2.82E-08	1.59E-06	4.23E-05	2.12E-05
Pyrene	3.71E-06	2.60E-08	1.46E-06	3.90E-05	1.95E-05
Benz(a)anthracene	6.22E-07	4.35E-09	2.45E-07	6.53E-06	3.27E-06
Chrysene	1.53E-06	1.07E-08	6.02E-07	1.61E-05	8.03E-06
Benzo(b)fluoranthene	1.11E-06	7.77E-09	4.37E-07	1.17E-05	5.83E-06
Benzo(k)fluoranthene	2.18E-07	1.53E-09	8.58E-08	2.29E-06	1.14E-06
Benzo(a)pyrene	2.57E-07	1.80E-09	1.01E-07	2.70E-06	1.35E-06
Indeno(1,2,3-cd)pyrene	4.14E-07	2.90E-09	1.63E-07	4.35E-06	2.17E-06
Dibenz(a,h)anthracene	3.46E-07	2.42E-09	1.36E-07	3.63E-06	1.82E-06
Benzo(g,h,I)perylene	5.56E-07	3.89E-09	2.19E-07	5.84E-06	2.92E-06

- Emissions (lb/hr) = AP-42 EF (lb/hp-hr) * 750 hp
- Emissions (lb/day) = Emissions (lb/hr) * 2 hr/day when operated
- Emissions (ton/yr) = Emissions (lb/day) * 75 days/yr * 1/2000 lbs/ton

HAP/TAP Emissions

5. HAP/TAP Emissions Horizontal Grinder

During 2022 the facility operated a horizontal grinder with a 755 horsepower diesel fired engine. The approximate 2022 operating schedule for the grinder was 6 hours/day, 4 days/week, 34 weeks/year, for a total of 136 days/year. HAP/TAP emissions from the grinder are estimated using the emissions factors in AP-42 Table 3.4-3 and 3.4-4. These emission factors are based on fuel input (lb/MMBtu). To convert from fuel input to to power output, a brake-specific fuel consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Chapter 3.3, Table 3.3-2.

	AP-42 Emission Factor		Emissions		
COMPOUND	**(lb/MMBtu)**	**(lb/hp-hr)**	**tons/year**	**lb/day**	**lb/hr**
Benzene	7.76E-04	5.43E-06	1.67E-03	2.46E-02	4.10E-03
Toluene	2.81E-04	1.97E-06	6.06E-04	8.91E-03	1.49E-03
Xylenes	1.93E-04	1.35E-06	4.16E-04	6.12E-03	1.02E-03
Propylene	2.79E-03	1.95E-05	6.02E-03	8.85E-02	1.47E-02
Formaldehyde	7.89E-05	5.52E-07	1.70E-04	2.50E-03	4.17E-04
Acetaldehyde	2.52E-05	1.76E-07	5.43E-05	7.99E-04	1.33E-04
Acrolein	7.88E-06	5.52E-08	1.70E-05	2.50E-04	4.16E-05
Naphthalene	1.30E-04	9.10E-07	2.80E-04	4.12E-03	6.87E-04
Acenaphthylene	9.23E-06	6.46E-08	1.99E-05	2.93E-04	4.88E-05
Acenaphthene	4.68E-06	3.28E-08	1.01E-05	1.48E-04	2.47E-05
Fluorene	1.28E-05	8.96E-08	2.76E-05	4.06E-04	6.76E-05
Phenanthrene	4.08E-05	2.86E-07	8.80E-05	1.29E-03	2.16E-04
Anthracene	1.23E-06	8.61E-09	2.65E-06	3.90E-05	6.50E-06
Fluoranthene	4.03E-06	2.82E-08	8.69E-06	1.28E-04	2.13E-05
Pyrene	3.71E-06	2.60E-08	8.00E-06	1.18E-04	1.96E-05
Benz(a)anthracene	6.22E-07	4.35E-09	1.34E-06	1.97E-05	3.29E-06
Chrysene	1.53E-06	1.07E-08	3.30E-06	4.85E-05	8.09E-06
Benzo(b)fluoranthene	1.11E-06	7.77E-09	2.39E-06	3.52E-05	5.87E-06
Benzo(k)fluoranthene	2.18E-07	1.53E-09	4.70E-07	6.91E-06	1.15E-06
Benzo(a)pyrene	2.57E-07	1.80E-09	5.54E-07	8.15E-06	1.36E-06
Indeno(1,2,3-cd)pyrene	4.14E-07	2.90E-09	8.93E-07	1.31E-05	2.19E-06
Dibenz(a,h)anthracene	3.46E-07	2.42E-09	7.46E-07	1.10E-05	1.83E-06
Benzo(g,h,l)perylene	5.56E-07	3.89E-09	1.20E-06	1.76E-05	2.94E-06

- Emissions (lb/hr) = AP-42 EF (lb/hp-hr) * 755 hp
- Emissions (lb/day) = Emissions (lb/hr) * 6 hr/day when operated
- Emissions (ton/yr) = Emissions (lb/day) * 136 days/yr * 1/2000 lbs/ton

HAP/TAP Emissions

6. Summary

The following table summarized the TAP/HAP emissions at the site. The reporting thresholds listed here are the "Plant Level Thresholds" published on the Marlyland Department of Environment (MDE) published "Attachment 1 - Toxic Air Pollutants". According to the MDE webiste, emissions of TAP below these thresholds do not need to be reported.

TAP/HAP COMPOUND	Emissions			Reporting Threshold		Reporting Required?
	tons/year	lb/day	lb/hr	lbs/hr	tons/yr	
1,1,1-Trichloroethane (methyl chloroform)	1.48E-02	8.11E-02	4.20E-03	10	10	No
1,1,2,2-Tetrachloroethane	4.29E-02	2.36E-01	1.22E-02	0.1	0.1	No
1,1-Dichloroethane (ethylidene dichloride)	5.36E-02	2.95E-01	1.52E-02	1	10	No
1,1-Dichloroethene (vinylidene chloride)**	4.47E-03	2.46E-02	1.27E-03	-	-	-
1,2-Dichloroethane (ethylene dichloride)	9.35E-03	5.14E-02	2.66E-03	0.1	0.01	No
1,2-Dichloropropane (propylene dichloride)	4.69E-03	2.58E-02	1.33E-03	1	10	No
Acrylonitrile	7.73E-02	4.24E-01	1.83E-02	0.01	0.01	Yes
Benzene	3.61E-02	2.20E-01	1.63E-02	0.01	0.1	Yes
Carbon disulfide	1.02E-02	5.57E-02	2.41E-03	0.1	1	No
Carbon tetrachloride	1.42E-04	7.80E-04	4.03E-05	0.1	0.01	No
Carbonyl sulfide	6.77E-03	3.71E-02	1.60E-03	0.1	1	No
Chlorobenzene	6.48E-03	3.57E-02	1.84E-03	0.1	1	No
Chloroethane (ethyl chloride)	1.86E-02	1.02E-01	5.28E-03	0.001	0.01	Yes
Chloroform	8.25E-04	4.54E-03	2.35E-04	0.1	0.01	No
Chloromethane (methyl chloride)	1.41E-02	7.74E-02	4.00E-03	0.1	0.1	No
Dichlorobenzene*	7.11E-03	3.91E-02	2.02E-03	1	0.1	No
Dichloromethane (methylene chloride)	2.80E-01	1.54E+00	7.96E-02	1	1	No
Ethylbenzene**	1.13E-01	6.17E-01	2.67E-02	-	-	-
Ethylene dibromide	4.33E-05	2.38E-04	1.23E-05	1	0.001	No
Hexane*	1.30E-01	7.14E-01	3.08E-02	1	10	No
Mercury (total)	1.45E-05	9.29E-05	4.11E-05	0.0001	0.001	No
Methyl ethyl ketone	1.18E-01	6.45E-01	2.78E-02	10	10	No
Methyl isobutyl ketone	4.31E-02	2.36E-01	1.02E-02	1	10	No
Perchloroethylene (tetrachloroethene)	1.42E-01	7.84E-01	4.05E-02	1	10	No
Toluene	8.35E-01	4.59E+00	2.48E-01	1	10	No
Trichloroethylene (trichloroethene)	8.54E-02	4.69E-01	2.43E-02	1	10	No
Vinyl chloride	1.06E-01	5.81E-01	3.01E-02	0.1	0.01	Yes
Xylene	2.96E-01	1.63E+00	7.71E-02	1	10	No
Propylene**	7.11E-03	1.18E-01	1.03E-01	-	-	-
Formaldehyde	2.01E-04	3.33E-03	8.31E-04	0.001	0.01	No
Acetaldehyde	6.43E-05	1.06E-03	2.65E-04	0.1	0.1	No
Acrolein	2.01E-05	3.33E-04	2.91E-04	0.001	0.01	No
Naphthalene	3.32E-04	5.49E-03	1.37E-03	0.1	1	No
Acenaphthylene	2.35E-05	3.90E-04	9.72E-05	0.01	0.1	No
Acenaphthene	1.19E-05	1.98E-04	4.93E-05	0.001	0.01	No
Fluorene	3.26E-05	5.40E-04	1.35E-04	0.001	0.01	No
Phenanthrene	1.04E-04	1.72E-03	4.30E-04	0.01	0.01	No
Anthracene	3.14E-06	5.19E-05	1.30E-05	0.001	0.01	No
Fluoranthene	1.03E-05	1.70E-04	4.25E-05	0.1	0.1	No
Pyrene	9.46E-06	1.57E-04	3.91E-05	0.001	0.01	No
Benz(a)anthracene	1.59E-06	2.63E-05	6.55E-06	0.001	0.001	No
Chrysene	3.90E-06	6.46E-05	1.61E-05	0.001	0.01	No
Benzo(b)fluoranthene	2.83E-06	4.69E-05	6.98E-06	0.1	0.001	No
Benzo(k)fluoranthene	5.56E-07	9.20E-06	2.30E-06	0.01	0.01	No
Benzo(a)pyrene	6.55E-07	1.08E-05	2.71E-06	0.001	0.0001	No
Indeno(1,2,3-cd)pyrene	1.06E-06	1.75E-05	4.36E-06	0.001	0.001	No
Dibenz(a,h)anthracene	8.82E-07	1.46E-05	3.65E-06	0.0001	0.0001	No
Benzo(g,h,l)perylene	1.42E-06	2.35E-05	5.86E-06	0.001	0.01	No

* Compound not on TAP list. The compound is part of a group (e.g., hexanes). For reporting purposes it is assumed that the compound emitted by the source is the one listed on the TAP list for that group.
** Not included on TAP list.

HAP/TAP Emissions

B. Reporting Form Summary

Form 4: Toxic Air Pollutants - Acrylonitrile

	Actual Emissions		
Equipment/ Emission Unit	tons/yr	lbs/day	lbs/hr
Flare EU-02	1.69E-05	3.27E-04	6.55E-04
Active Landfill EU-01	7.73E-02	4.23E-01	1.76E-02
Total	**7.73E-02**	**4.24E-01**	**1.83E-02**

Form 4: Toxic Air Pollutants - Benzene

	Actual Emissions		
Equipment/ Emission Unit	tons/yr	lbs/day	lbs/hr
Flare EU-02	7.45E-06	1.45E-04	2.89E-04
Active Landfill EU-01	3.41E-02	1.87E-01	7.79E-03
Tub Grinder EU-03	3.06E-04	8.15E-03	4.07E-03
Horizontal Grinder	1.67E-03	2.46E-02	4.10E-03
Total	**3.61E-02**	**2.20E-01**	**1.63E-02**

Form 4: Toxic Air Pollutants - Chloroethane

	Actual Emissions		
Equipment/ Emission Unit	tons/yr	lbs/day	lbs/hr
Flare EU-02	2.70E-05	5.24E-04	1.05E-03
Active Landfill EU-01	1.86E-02	1.02E-01	4.24E-03
Total	**1.86E-02**	**1.02E-01**	**5.28E-03**

Form 4: Toxic Air Pollutants - Vinyl Chloride

	Actual Emissions		
Equipment/ Emission Unit	tons/yr	lbs/day	lbs/hr
Flare EU-02	1.53E-04	2.98E-03	5.96E-03
Active Landfill EU-01	1.06E-01	5.78E-01	2.41E-02
Total	**1.06E-01**	**5.81E-01**	**3.01E-02**

Form 4: Toxic Air Pollutants - 1,2 Dichloroethane

	Actual Emissions		
Equipment/ Emission Unit	tons/yr	lbs/day	lbs/hr
Flare EU-02	1.36E-05	2.64E-04	5.27E-04
Active Landfill EU-01	9.33E-03	5.11E-02	2.13E-03
Total	**9.35E-03**	**5.14E-02**	**2.66E-03**

Geosyntec consultants

Appendix A

LandGEM Output

Summary Report

Landfill Name or Identifier: Newland Park Landfill

Date: Tuesday, February 14, 2023

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10}\right) e^{-kt_{ij}}$$

Where,

Q_{CH4} = annual methane generation in the year of the calculation ($m^3/year$)

i = 1-year time increment

n = (year of the calculation) - (initial year of waste acceptance)

j = 0.1-year time increment

k = methane generation rate ($year^{-1}$)

L_o = potential methane generation capacity (m^3/Mg)

M_i = mass of waste accepted in the i^{th} year (Mg)

t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (*decimal years*, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1960**	
Landfill Closure Year (with 80-year limit)	**2038**	
Actual Closure Year (without limit)	***2038***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity		*megagrams*

MODEL PARAMETERS

Methane Generation Rate, k	**0.040**	$year^{-1}$
Potential Methane Generation Capacity, L_o	**100**	m^3/Mg
NMOC Concentration	**319**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Methane**
Gas / Pollutant #2:	**Carbon dioxide**
Gas / Pollutant #3:	**NMOC**
Gas / Pollutant #4:	**Total landfill gas**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1960	20,067	22,074	0	0
1961	20,067	22,074	20,067	22,074
1962	20,067	22,074	40,134	44,147
1963	20,067	22,074	60,200	66,221
1964	20,067	22,074	80,267	88,294
1965	20,076	22,083	100,334	110,368
1966	20,058	22,064	120,410	132,451
1967	20,049	22,054	140,468	154,515
1968	20,139	22,153	160,516	176,568
1969	20,049	22,054	180,656	198,721
1970	20,049	22,054	200,705	220,775
1971	20,049	22,054	220,753	242,828
1972	20,049	22,054	240,802	264,882
1973	20,139	22,153	260,851	286,936
1974	20,049	22,054	280,990	309,089
1975	20,049	22,054	301,039	331,142
1976	20,049	22,054	321,087	353,196
1977	20,049	22,054	341,136	375,250
1978	20,139	22,153	361,185	397,303
1979	20,049	22,054	381,324	419,456
1980	20,049	22,054	401,373	441,510
1981	20,049	22,054	421,421	463,564
1982	20,139	22,153	441,470	485,617
1983	35,108	38,619	461,609	507,770
1984	50,076	55,084	496,717	546,389
1985	65,498	72,048	546,794	601,473
1986	58,967	64,863	612,292	673,521
1987	49,351	54,286	671,259	738,385
1988	48,443	53,288	720,609	792,670
1989	63,503	69,853	769,053	845,958
1990	66,587	73,246	832,555	915,811
1991	70,397	77,437	899,142	989,057
1992	70,034	77,038	969,540	1,066,494
1993	67,131	73,844	1,039,574	1,143,531
1994	68,038	74,842	1,106,705	1,217,376
1995	68,039	74,842	1,174,744	1,292,218
1996	68,038	74,842	1,242,782	1,367,060
1997	70,760	77,836	1,310,821	1,441,903
1998	70,760	77,836	1,381,581	1,519,739
1999	29,030	31,933	1,452,341	1,597,575

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2000	73,482	80,830	1,481,371	1,629,508
2001	77,110	84,821	1,554,852	1,710,337
2002	80,739	88,813	1,631,962	1,795,159
2003	74,389	81,828	1,712,701	1,883,972
2004	82,553	90,809	1,787,090	1,965,799
2005	84,368	92,805	1,869,644	2,056,608
2006	91,625	100,788	1,954,011	2,149,412
2007	114,981	126,480	2,045,636	2,250,200
2008	99,913	109,905	2,160,618	2,376,680
2009	90,135	99,148	2,260,531	2,486,584
2010	92,888	102,177	2,350,666	2,585,732
2011	92,243	101,467	2,443,554	2,687,910
2012	83,187	91,506	2,535,797	2,789,377
2013	86,439	95,083	2,618,984	2,880,883
2014	92,785	102,064	2,705,423	2,975,966
2015	96,257	105,883	2,798,209	3,078,030
2016	113,815	125,196	2,894,466	3,183,913
2017	121,232	133,355	3,008,281	3,309,109
2018	120,219	132,241	3,129,512	3,442,464
2019	133,008	146,309	3,249,732	3,574,705
2020	139,607	153,567	3,382,740	3,721,014
2021	146,954	161,649	3,522,346	3,874,581
2022	134,674	148,142	3,669,300	4,036,230
2023	134,674	148,142	3,803,974	4,184,372
2024	134,674	148,142	3,938,649	4,332,514
2025	134,674	148,142	4,073,323	4,480,655
2026	134,674	148,142	4,207,997	4,628,797
2027	134,674	148,142	4,342,672	4,776,939
2028	134,674	148,142	4,477,346	4,925,081
2029	134,674	148,142	4,612,021	5,073,223
2030	134,674	148,142	4,746,695	5,221,364
2031	134,674	148,142	4,881,369	5,369,506
2032	134,674	148,142	5,016,044	5,517,648
2033	134,674	148,142	5,150,718	5,665,790
2034	134,674	148,142	5,285,392	5,813,932
2035	134,674	148,142	5,420,067	5,962,073
2036	134,674	148,142	5,554,741	6,110,215
2037	134,674	148,142	5,689,415	6,258,357
2038	0	0	5,824,090	6,406,499
2039	0	0	5,824,090	6,406,499

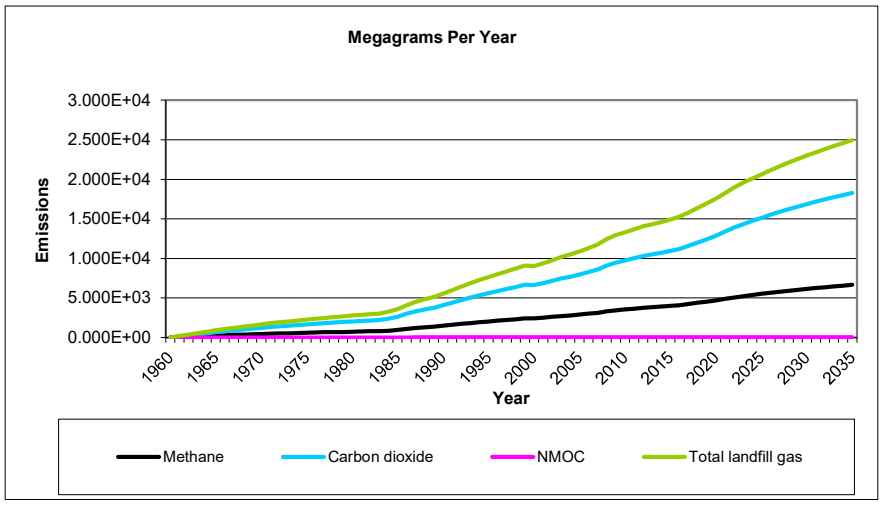
Pollutant Parameters

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) - HAP	0.48	133.41		
	1,1,2,2-Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

Graphs


Megagrams Per Year
Emissions
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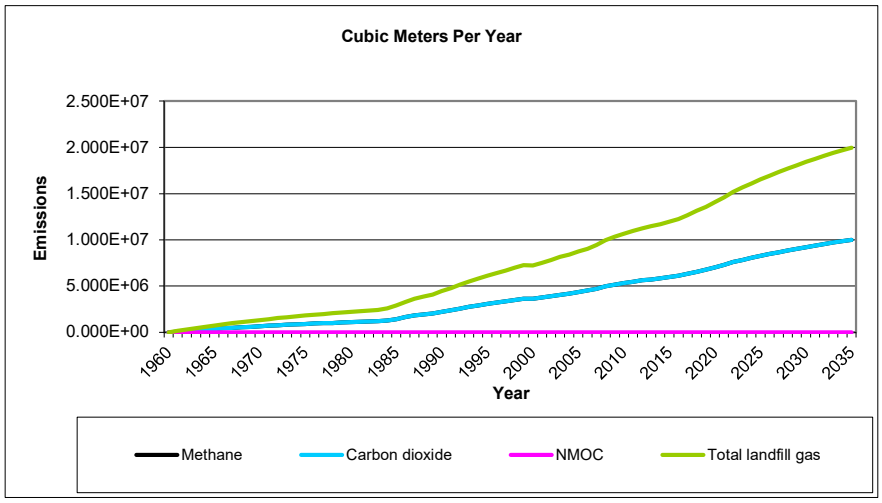
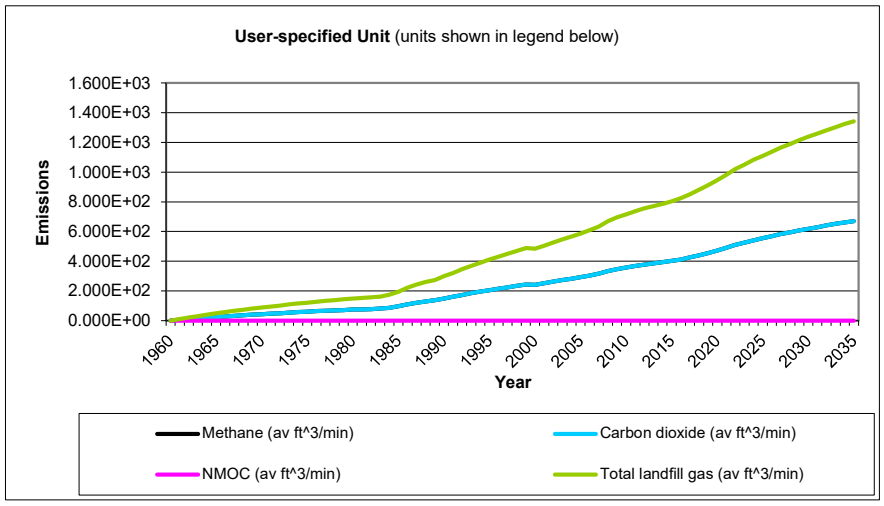
2.500E+04
2.000E+04
1.500E+04
1.000E+04
5.000E+03
0.000E+00
1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035
Year
Methane
Carbon dioxide
NMOC
Total landfill gas


Cubic Meters Per Year
Emissions
2.500E+07
2.000E+07
1.500E+07
1.000E+07
5.000E+06
0.000E+00
1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035
Year
Methane
Carbon dioxide
NMOC
Total landfill gas


User-specified Unit (units shown in legend below)
Emissions
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1.400E+03
1.200E+03
1.000E+03
8.000E+02
6.000E+02
4.000E+02
2.000E+02
0.000E+00
1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020 2025 2030 2035
Year
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)
Total landfill gas (av ft^3/min)

Results

Year	Methane			Carbon dioxide		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1960	0	0	0	0	0	0
1961	5.260E+01	7.884E+04	5.297E+00	1.443E+02	7.884E+04	5.297E+00
1962	1.031E+02	1.546E+05	1.039E+01	2.830E+02	1.546E+05	1.039E+01
1963	1.517E+02	2.274E+05	1.528E+01	4.162E+02	2.274E+05	1.528E+01
1964	1.983E+02	2.973E+05	1.998E+01	5.442E+02	2.973E+05	1.998E+01
1965	2.432E+02	3.645E+05	2.449E+01	6.672E+02	3.645E+05	2.449E+01
1966	2.862E+02	4.291E+05	2.883E+01	7.854E+02	4.291E+05	2.883E+01
1967	3.276E+02	4.910E+05	3.299E+01	8.989E+02	4.910E+05	3.299E+01
1968	3.673E+02	5.506E+05	3.699E+01	1.008E+03	5.506E+05	3.699E+01
1969	4.057E+02	6.081E+05	4.086E+01	1.113E+03	6.081E+05	4.086E+01
1970	4.423E+02	6.630E+05	4.455E+01	1.214E+03	6.630E+05	4.455E+01
1971	4.775E+02	7.158E+05	4.809E+01	1.310E+03	7.158E+05	4.809E+01
1972	5.114E+02	7.665E+05	5.150E+01	1.403E+03	7.665E+05	5.150E+01
1973	5.439E+02	8.152E+05	5.477E+01	1.492E+03	8.152E+05	5.477E+01
1974	5.753E+02	8.624E+05	5.794E+01	1.579E+03	8.624E+05	5.794E+01
1975	6.053E+02	9.073E+05	6.096E+01	1.661E+03	9.073E+05	6.096E+01
1976	6.341E+02	9.505E+05	6.387E+01	1.740E+03	9.505E+05	6.387E+01
1977	6.618E+02	9.920E+05	6.665E+01	1.816E+03	9.920E+05	6.665E+01
1978	6.884E+02	1.032E+06	6.933E+01	1.889E+03	1.032E+06	6.933E+01
1979	7.142E+02	1.071E+06	7.193E+01	1.960E+03	1.071E+06	7.193E+01
1980	7.388E+02	1.107E+06	7.440E+01	2.027E+03	1.107E+06	7.440E+01
1981	7.623E+02	1.143E+06	7.678E+01	2.092E+03	1.143E+06	7.678E+01
1982	7.850E+02	1.177E+06	7.906E+01	2.154E+03	1.177E+06	7.906E+01
1983	8.070E+02	1.210E+06	8.128E+01	2.214E+03	1.210E+06	8.128E+01
1984	8.674E+02	1.300E+06	8.736E+01	2.380E+03	1.300E+06	8.736E+01
1985	9.646E+02	1.446E+06	9.715E+01	2.647E+03	1.446E+06	9.715E+01
1986	1.099E+03	1.647E+06	1.106E+02	3.014E+03	1.647E+06	1.106E+02
1987	1.210E+03	1.814E+06	1.219E+02	3.320E+03	1.814E+06	1.219E+02
1988	1.292E+03	1.936E+06	1.301E+02	3.545E+03	1.936E+06	1.301E+02
1989	1.368E+03	2.051E+06	1.378E+02	3.754E+03	2.051E+06	1.378E+02
1990	1.481E+03	2.220E+06	1.492E+02	4.064E+03	2.220E+06	1.492E+02
1991	1.597E+03	2.395E+06	1.609E+02	4.383E+03	2.395E+06	1.609E+02
1992	1.719E+03	2.577E+06	1.732E+02	4.718E+03	2.577E+06	1.732E+02
1993	1.836E+03	2.751E+06	1.849E+02	5.036E+03	2.751E+06	1.849E+02
1994	1.940E+03	2.907E+06	1.953E+02	5.322E+03	2.907E+06	1.953E+02
1995	2.042E+03	3.060E+06	2.056E+02	5.602E+03	3.060E+06	2.056E+02
1996	2.140E+03	3.208E+06	2.155E+02	5.872E+03	3.208E+06	2.155E+02
1997	2.235E+03	3.349E+06	2.250E+02	6.131E+03	3.349E+06	2.250E+02
1998	2.332E+03	3.496E+06	2.349E+02	6.399E+03	3.496E+06	2.349E+02
1999	2.426E+03	3.637E+06	2.444E+02	6.657E+03	3.637E+06	2.444E+02
2000	2.407E+03	3.608E+06	2.424E+02	6.605E+03	3.608E+06	2.424E+02
2001	2.506E+03	3.756E+06	2.523E+02	6.875E+03	3.756E+06	2.523E+02
2002	2.609E+03	3.911E+06	2.628E+02	7.160E+03	3.911E+06	2.628E+02
2003	2.719E+03	4.075E+06	2.738E+02	7.460E+03	4.075E+06	2.738E+02
2004	2.807E+03	4.208E+06	2.827E+02	7.702E+03	4.208E+06	2.827E+02
2005	2.913E+03	4.367E+06	2.934E+02	7.994E+03	4.367E+06	2.934E+02
2006	3.020E+03	4.527E+06	3.042E+02	8.287E+03	4.527E+06	3.042E+02
2007	3.142E+03	4.710E+06	3.164E+02	8.621E+03	4.710E+06	3.164E+02
2008	3.320E+03	4.977E+06	3.344E+02	9.110E+03	4.977E+06	3.344E+02
2009	3.452E+03	5.174E+06	3.477E+02	9.471E+03	5.174E+06	3.477E+02

Results (Continued)

Year	Methane			Carbon dioxide		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2010	3.553E+03	5.325E+06	3.578E+02	9.748E+03	5.325E+06	3.578E+02
2011	3.657E+03	5.482E+06	3.683E+02	1.003E+04	5.482E+06	3.683E+02
2012	3.755E+03	5.629E+06	3.782E+02	1.030E+04	5.629E+06	3.782E+02
2013	3.826E+03	5.735E+06	3.853E+02	1.050E+04	5.735E+06	3.853E+02
2014	3.903E+03	5.850E+06	3.931E+02	1.071E+04	5.850E+06	3.931E+02
2015	3.993E+03	5.985E+06	4.021E+02	1.096E+04	5.985E+06	4.021E+02
2016	4.089E+03	6.129E+06	4.118E+02	1.122E+04	6.129E+06	4.118E+02
2017	4.227E+03	6.335E+06	4.257E+02	1.160E+04	6.335E+06	4.257E+02
2018	4.379E+03	6.563E+06	4.410E+02	1.201E+04	6.563E+06	4.410E+02
2019	4.522E+03	6.778E+06	4.554E+02	1.241E+04	6.778E+06	4.554E+02
2020	4.693E+03	7.035E+06	4.727E+02	1.288E+04	7.035E+06	4.727E+02
2021	4.875E+03	7.308E+06	4.910E+02	1.338E+04	7.308E+06	4.910E+02
2022	5.069E+03	7.599E+06	5.105E+02	1.391E+04	7.599E+06	5.105E+02
2023	5.224E+03	7.830E+06	5.261E+02	1.433E+04	7.830E+06	5.261E+02
2024	5.372E+03	8.052E+06	5.410E+02	1.474E+04	8.052E+06	5.410E+02
2025	5.514E+03	8.265E+06	5.553E+02	1.513E+04	8.265E+06	5.553E+02
2026	5.651E+03	8.470E+06	5.691E+02	1.550E+04	8.470E+06	5.691E+02
2027	5.782E+03	8.667E+06	5.824E+02	1.587E+04	8.667E+06	5.824E+02
2028	5.909E+03	8.857E+06	5.951E+02	1.621E+04	8.857E+06	5.951E+02
2029	6.030E+03	9.038E+06	6.073E+02	1.654E+04	9.038E+06	6.073E+02
2030	6.147E+03	9.213E+06	6.190E+02	1.686E+04	9.213E+06	6.190E+02
2031	6.259E+03	9.381E+06	6.303E+02	1.717E+04	9.381E+06	6.303E+02
2032	6.366E+03	9.542E+06	6.411E+02	1.747E+04	9.542E+06	6.411E+02
2033	6.470E+03	9.697E+06	6.516E+02	1.775E+04	9.697E+06	6.516E+02
2034	6.569E+03	9.846E+06	6.616E+02	1.802E+04	9.846E+06	6.616E+02
2035	6.664E+03	9.989E+06	6.712E+02	1.829E+04	9.989E+06	6.712E+02
2036	6.756E+03	1.013E+07	6.804E+02	1.854E+04	1.013E+07	6.804E+02
2037	6.844E+03	1.026E+07	6.893E+02	1.878E+04	1.026E+07	6.893E+02
2038	6.929E+03	1.039E+07	6.978E+02	1.901E+04	1.039E+07	6.978E+02
2039	6.657E+03	9.978E+06	6.704E+02	1.827E+04	9.978E+06	6.704E+02
2040	6.396E+03	9.587E+06	6.442E+02	1.755E+04	9.587E+06	6.442E+02
2041	6.145E+03	9.211E+06	6.189E+02	1.686E+04	9.211E+06	6.189E+02
2042	5.904E+03	8.850E+06	5.946E+02	1.620E+04	8.850E+06	5.946E+02
2043	5.673E+03	8.503E+06	5.713E+02	1.556E+04	8.503E+06	5.713E+02
2044	5.450E+03	8.170E+06	5.489E+02	1.495E+04	8.170E+06	5.489E+02
2045	5.237E+03	7.849E+06	5.274E+02	1.437E+04	7.849E+06	5.274E+02
2046	5.031E+03	7.541E+06	5.067E+02	1.380E+04	7.541E+06	5.067E+02
2047	4.834E+03	7.246E+06	4.868E+02	1.326E+04	7.246E+06	4.868E+02
2048	4.644E+03	6.962E+06	4.678E+02	1.274E+04	6.962E+06	4.678E+02
2049	4.462E+03	6.689E+06	4.494E+02	1.224E+04	6.689E+06	4.494E+02
2050	4.287E+03	6.426E+06	4.318E+02	1.176E+04	6.426E+06	4.318E+02
2051	4.119E+03	6.174E+06	4.149E+02	1.130E+04	6.174E+06	4.149E+02
2052	3.958E+03	5.932E+06	3.986E+02	1.086E+04	5.932E+06	3.986E+02
2053	3.803E+03	5.700E+06	3.830E+02	1.043E+04	5.700E+06	3.830E+02
2054	3.653E+03	5.476E+06	3.679E+02	1.002E+04	5.476E+06	3.679E+02
2055	3.510E+03	5.262E+06	3.535E+02	9.631E+03	5.262E+06	3.535E+02
2056	3.373E+03	5.055E+06	3.397E+02	9.254E+03	5.055E+06	3.397E+02
2057	3.240E+03	4.857E+06	3.263E+02	8.891E+03	4.857E+06	3.263E+02
2058	3.113E+03	4.667E+06	3.135E+02	8.542E+03	4.667E+06	3.135E+02
2059	2.991E+03	4.484E+06	3.013E+02	8.207E+03	4.484E+06	3.013E+02
2060	2.874E+03	4.308E+06	2.894E+02	7.885E+03	4.308E+06	2.894E+02

Results (Continued)

Year	Methane			Carbon dioxide		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2061	2.761E+03	4.139E+06	2.781E+02	7.576E+03	4.139E+06	2.781E+02
2062	2.653E+03	3.977E+06	2.672E+02	7.279E+03	3.977E+06	2.672E+02
2063	2.549E+03	3.821E+06	2.567E+02	6.994E+03	3.821E+06	2.567E+02
2064	2.449E+03	3.671E+06	2.466E+02	6.719E+03	3.671E+06	2.466E+02
2065	2.353E+03	3.527E+06	2.370E+02	6.456E+03	3.527E+06	2.370E+02
2066	2.261E+03	3.389E+06	2.277E+02	6.203E+03	3.389E+06	2.277E+02
2067	2.172E+03	3.256E+06	2.188E+02	5.960E+03	3.256E+06	2.188E+02
2068	2.087E+03	3.128E+06	2.102E+02	5.726E+03	3.128E+06	2.102E+02
2069	2.005E+03	3.005E+06	2.019E+02	5.501E+03	3.005E+06	2.019E+02
2070	1.926E+03	2.888E+06	1.940E+02	5.286E+03	2.888E+06	1.940E+02
2071	1.851E+03	2.774E+06	1.864E+02	5.078E+03	2.774E+06	1.864E+02
2072	1.778E+03	2.666E+06	1.791E+02	4.879E+03	2.666E+06	1.791E+02
2073	1.709E+03	2.561E+06	1.721E+02	4.688E+03	2.561E+06	1.721E+02
2074	1.642E+03	2.461E+06	1.653E+02	4.504E+03	2.461E+06	1.653E+02
2075	1.577E+03	2.364E+06	1.588E+02	4.328E+03	2.364E+06	1.588E+02
2076	1.515E+03	2.271E+06	1.526E+02	4.158E+03	2.271E+06	1.526E+02
2077	1.456E+03	2.182E+06	1.466E+02	3.995E+03	2.182E+06	1.466E+02
2078	1.399E+03	2.097E+06	1.409E+02	3.838E+03	2.097E+06	1.409E+02
2079	1.344E+03	2.015E+06	1.354E+02	3.688E+03	2.015E+06	1.354E+02
2080	1.291E+03	1.936E+06	1.301E+02	3.543E+03	1.936E+06	1.301E+02
2081	1.241E+03	1.860E+06	1.250E+02	3.404E+03	1.860E+06	1.250E+02
2082	1.192E+03	1.787E+06	1.201E+02	3.271E+03	1.787E+06	1.201E+02
2083	1.145E+03	1.717E+06	1.153E+02	3.142E+03	1.717E+06	1.153E+02
2084	1.100E+03	1.649E+06	1.108E+02	3.019E+03	1.649E+06	1.108E+02
2085	1.057E+03	1.585E+06	1.065E+02	2.901E+03	1.585E+06	1.065E+02
2086	1.016E+03	1.523E+06	1.023E+02	2.787E+03	1.523E+06	1.023E+02
2087	9.760E+02	1.463E+06	9.829E+01	2.678E+03	1.463E+06	9.829E+01
2088	9.377E+02	1.406E+06	9.444E+01	2.573E+03	1.406E+06	9.444E+01
2089	9.009E+02	1.350E+06	9.073E+01	2.472E+03	1.350E+06	9.073E+01
2090	8.656E+02	1.297E+06	8.718E+01	2.375E+03	1.297E+06	8.718E+01
2091	8.317E+02	1.247E+06	8.376E+01	2.282E+03	1.247E+06	8.376E+01
2092	7.991E+02	1.198E+06	8.047E+01	2.192E+03	1.198E+06	8.047E+01
2093	7.677E+02	1.151E+06	7.732E+01	2.106E+03	1.151E+06	7.732E+01
2094	7.376E+02	1.106E+06	7.429E+01	2.024E+03	1.106E+06	7.429E+01
2095	7.087E+02	1.062E+06	7.137E+01	1.945E+03	1.062E+06	7.137E+01
2096	6.809E+02	1.021E+06	6.858E+01	1.868E+03	1.021E+06	6.858E+01
2097	6.542E+02	9.806E+05	6.589E+01	1.795E+03	9.806E+05	6.589E+01
2098	6.286E+02	9.422E+05	6.330E+01	1.725E+03	9.422E+05	6.330E+01
2099	6.039E+02	9.052E+05	6.082E+01	1.657E+03	9.052E+05	6.082E+01
2100	5.802E+02	8.697E+05	5.844E+01	1.592E+03	8.697E+05	5.844E+01

Results (Continued)

Year	NMOC			Total landfill gas		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1960	0	0	0	0	0	0
1961	1.803E-01	5.030E+01	3.380E-03	1.969E+02	1.577E+05	1.059E+01
1962	3.535E-01	9.863E+01	6.627E-03	3.861E+02	3.092E+05	2.077E+01
1963	5.200E-01	1.451E+02	9.747E-03	5.679E+02	4.547E+05	3.055E+01
1964	6.799E-01	1.897E+02	1.274E-02	7.425E+02	5.946E+05	3.995E+01
1965	8.335E-01	2.325E+02	1.562E-02	9.103E+02	7.290E+05	4.898E+01
1966	9.812E-01	2.737E+02	1.839E-02	1.072E+03	8.581E+05	5.766E+01
1967	1.123E+00	3.133E+02	2.105E-02	1.226E+03	9.821E+05	6.599E+01
1968	1.259E+00	3.513E+02	2.360E-02	1.375E+03	1.101E+06	7.398E+01
1969	1.391E+00	3.880E+02	2.607E-02	1.519E+03	1.216E+06	8.172E+01
1970	1.516E+00	4.230E+02	2.842E-02	1.656E+03	1.326E+06	8.910E+01
1971	1.637E+00	4.567E+02	3.068E-02	1.788E+03	1.432E+06	9.619E+01
1972	1.753E+00	4.890E+02	3.286E-02	1.914E+03	1.533E+06	1.030E+02
1973	1.864E+00	5.201E+02	3.495E-02	2.036E+03	1.630E+06	1.095E+02
1974	1.972E+00	5.502E+02	3.697E-02	2.154E+03	1.725E+06	1.159E+02
1975	2.075E+00	5.789E+02	3.889E-02	2.266E+03	1.815E+06	1.219E+02
1976	2.174E+00	6.064E+02	4.075E-02	2.374E+03	1.901E+06	1.277E+02
1977	2.269E+00	6.329E+02	4.253E-02	2.478E+03	1.984E+06	1.333E+02
1978	2.360E+00	6.583E+02	4.423E-02	2.577E+03	2.064E+06	1.387E+02
1979	2.448E+00	6.830E+02	4.589E-02	2.674E+03	2.141E+06	1.439E+02
1980	2.532E+00	7.065E+02	4.747E-02	2.766E+03	2.215E+06	1.488E+02
1981	2.613E+00	7.290E+02	4.898E-02	2.854E+03	2.285E+06	1.536E+02
1982	2.691E+00	7.507E+02	5.044E-02	2.939E+03	2.353E+06	1.581E+02
1983	2.766E+00	7.718E+02	5.185E-02	3.021E+03	2.419E+06	1.626E+02
1984	2.973E+00	8.295E+02	5.573E-02	3.247E+03	2.600E+06	1.747E+02
1985	3.307E+00	9.225E+02	6.198E-02	3.611E+03	2.892E+06	1.943E+02
1986	3.766E+00	1.051E+03	7.058E-02	4.113E+03	3.293E+06	2.213E+02
1987	4.148E+00	1.157E+03	7.775E-02	4.530E+03	3.627E+06	2.437E+02
1988	4.428E+00	1.235E+03	8.301E-02	4.837E+03	3.873E+06	2.602E+02
1989	4.690E+00	1.308E+03	8.791E-02	5.122E+03	4.102E+06	2.756E+02
1990	5.077E+00	1.416E+03	9.516E-02	5.545E+03	4.440E+06	2.983E+02
1991	5.476E+00	1.528E+03	1.026E-01	5.981E+03	4.789E+06	3.218E+02
1992	5.894E+00	1.644E+03	1.105E-01	6.437E+03	5.154E+06	3.463E+02
1993	6.292E+00	1.755E+03	1.179E-01	6.872E+03	5.503E+06	3.697E+02
1994	6.648E+00	1.855E+03	1.246E-01	7.261E+03	5.814E+06	3.907E+02
1995	6.999E+00	1.953E+03	1.312E-01	7.644E+03	6.121E+06	4.113E+02
1996	7.336E+00	2.047E+03	1.375E-01	8.012E+03	6.416E+06	4.311E+02
1997	7.660E+00	2.137E+03	1.436E-01	8.365E+03	6.699E+06	4.501E+02
1998	7.995E+00	2.230E+03	1.499E-01	8.732E+03	6.992E+06	4.698E+02
1999	8.317E+00	2.320E+03	1.559E-01	9.084E+03	7.274E+06	4.887E+02
2000	8.252E+00	2.302E+03	1.547E-01	9.013E+03	7.217E+06	4.849E+02
2001	8.589E+00	2.396E+03	1.610E-01	9.380E+03	7.511E+06	5.047E+02
2002	8.945E+00	2.495E+03	1.677E-01	9.769E+03	7.823E+06	5.256E+02
2003	9.319E+00	2.600E+03	1.747E-01	1.018E+04	8.150E+06	5.476E+02
2004	9.622E+00	2.684E+03	1.804E-01	1.051E+04	8.415E+06	5.654E+02
2005	9.987E+00	2.786E+03	1.872E-01	1.091E+04	8.734E+06	5.868E+02
2006	1.035E+01	2.888E+03	1.941E-01	1.131E+04	9.054E+06	6.084E+02
2007	1.077E+01	3.005E+03	2.019E-01	1.176E+04	9.419E+06	6.329E+02
2008	1.138E+01	3.175E+03	2.133E-01	1.243E+04	9.954E+06	6.688E+02
2009	1.183E+01	3.301E+03	2.218E-01	1.292E+04	1.035E+07	6.953E+02

Results (Continued)

Year	NMOC			Total landfill gas		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2010	1.218E+01	3.398E+03	2.283E-01	1.330E+04	1.065E+07	7.156E+02
2011	1.254E+01	3.497E+03	2.350E-01	1.369E+04	1.096E+07	7.366E+02
2012	1.287E+01	3.591E+03	2.413E-01	1.406E+04	1.126E+07	7.564E+02
2013	1.312E+01	3.659E+03	2.459E-01	1.432E+04	1.147E+07	7.707E+02
2014	1.338E+01	3.732E+03	2.508E-01	1.461E+04	1.170E+07	7.861E+02
2015	1.369E+01	3.818E+03	2.566E-01	1.495E+04	1.197E+07	8.043E+02
2016	1.402E+01	3.910E+03	2.627E-01	1.531E+04	1.226E+07	8.236E+02
2017	1.449E+01	4.042E+03	2.716E-01	1.582E+04	1.267E+07	8.514E+02
2018	1.501E+01	4.187E+03	2.814E-01	1.639E+04	1.313E+07	8.820E+02
2019	1.550E+01	4.325E+03	2.906E-01	1.693E+04	1.356E+07	9.109E+02
2020	1.609E+01	4.488E+03	3.016E-01	1.757E+04	1.407E+07	9.454E+02
2021	1.671E+01	4.662E+03	3.133E-01	1.825E+04	1.462E+07	9.820E+02
2022	1.738E+01	4.848E+03	3.257E-01	1.898E+04	1.520E+07	1.021E+03
2023	1.791E+01	4.995E+03	3.356E-01	1.956E+04	1.566E+07	1.052E+03
2024	1.841E+01	5.137E+03	3.452E-01	2.011E+04	1.610E+07	1.082E+03
2025	1.890E+01	5.273E+03	3.543E-01	2.064E+04	1.653E+07	1.111E+03
2026	1.937E+01	5.404E+03	3.631E-01	2.116E+04	1.694E+07	1.138E+03
2027	1.982E+01	5.530E+03	3.715E-01	2.165E+04	1.733E+07	1.165E+03
2028	2.025E+01	5.651E+03	3.797E-01	2.212E+04	1.771E+07	1.190E+03
2029	2.067E+01	5.767E+03	3.875E-01	2.257E+04	1.808E+07	1.215E+03
2030	2.107E+01	5.878E+03	3.949E-01	2.301E+04	1.843E+07	1.238E+03
2031	2.145E+01	5.985E+03	4.021E-01	2.343E+04	1.876E+07	1.261E+03
2032	2.182E+01	6.088E+03	4.091E-01	2.383E+04	1.908E+07	1.282E+03
2033	2.218E+01	6.187E+03	4.157E-01	2.422E+04	1.939E+07	1.303E+03
2034	2.252E+01	6.282E+03	4.221E-01	2.459E+04	1.969E+07	1.323E+03
2035	2.284E+01	6.373E+03	4.282E-01	2.495E+04	1.998E+07	1.342E+03
2036	2.316E+01	6.461E+03	4.341E-01	2.529E+04	2.025E+07	1.361E+03
2037	2.346E+01	6.545E+03	4.398E-01	2.562E+04	2.052E+07	1.379E+03
2038	2.375E+01	6.626E+03	4.452E-01	2.594E+04	2.077E+07	1.396E+03
2039	2.282E+01	6.366E+03	4.277E-01	2.492E+04	1.996E+07	1.341E+03
2040	2.192E+01	6.117E+03	4.110E-01	2.395E+04	1.917E+07	1.288E+03
2041	2.106E+01	5.877E+03	3.949E-01	2.301E+04	1.842E+07	1.238E+03
2042	2.024E+01	5.646E+03	3.794E-01	2.210E+04	1.770E+07	1.189E+03
2043	1.945E+01	5.425E+03	3.645E-01	2.124E+04	1.701E+07	1.143E+03
2044	1.868E+01	5.212E+03	3.502E-01	2.040E+04	1.634E+07	1.098E+03
2045	1.795E+01	5.008E+03	3.365E-01	1.960E+04	1.570E+07	1.055E+03
2046	1.725E+01	4.811E+03	3.233E-01	1.884E+04	1.508E+07	1.013E+03
2047	1.657E+01	4.623E+03	3.106E-01	1.810E+04	1.449E+07	9.737E+02
2048	1.592E+01	4.442E+03	2.984E-01	1.739E+04	1.392E+07	9.355E+02
2049	1.530E+01	4.267E+03	2.867E-01	1.671E+04	1.338E+07	8.988E+02
2050	1.470E+01	4.100E+03	2.755E-01	1.605E+04	1.285E+07	8.636E+02
2051	1.412E+01	3.939E+03	2.647E-01	1.542E+04	1.235E+07	8.297E+02
2052	1.357E+01	3.785E+03	2.543E-01	1.482E+04	1.186E+07	7.972E+02
2053	1.303E+01	3.636E+03	2.443E-01	1.424E+04	1.140E+07	7.659E+02
2054	1.252E+01	3.494E+03	2.348E-01	1.368E+04	1.095E+07	7.359E+02
2055	1.203E+01	3.357E+03	2.255E-01	1.314E+04	1.052E+07	7.070E+02
2056	1.156E+01	3.225E+03	2.167E-01	1.263E+04	1.011E+07	6.793E+02
2057	1.111E+01	3.099E+03	2.082E-01	1.213E+04	9.714E+06	6.527E+02
2058	1.067E+01	2.977E+03	2.000E-01	1.166E+04	9.333E+06	6.271E+02
2059	1.025E+01	2.861E+03	1.922E-01	1.120E+04	8.967E+06	6.025E+02
2060	9.851E+00	2.748E+03	1.847E-01	1.076E+04	8.616E+06	5.789E+02

Results (Continued)

Year	NMOC			Total landfill gas		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2061	9.465E+00	2.641E+03	1.774E-01	1.034E+04	8.278E+06	5.562E+02
2062	9.094E+00	2.537E+03	1.705E-01	9.932E+03	7.953E+06	5.344E+02
2063	8.737E+00	2.438E+03	1.638E-01	9.543E+03	7.641E+06	5.134E+02
2064	8.395E+00	2.342E+03	1.574E-01	9.168E+03	7.342E+06	4.933E+02
2065	8.066E+00	2.250E+03	1.512E-01	8.809E+03	7.054E+06	4.739E+02
2066	7.749E+00	2.162E+03	1.453E-01	8.464E+03	6.777E+06	4.554E+02
2067	7.446E+00	2.077E+03	1.396E-01	8.132E+03	6.511E+06	4.375E+02
2068	7.154E+00	1.996E+03	1.341E-01	7.813E+03	6.256E+06	4.204E+02
2069	6.873E+00	1.917E+03	1.288E-01	7.506E+03	6.011E+06	4.039E+02
2070	6.604E+00	1.842E+03	1.238E-01	7.212E+03	5.775E+06	3.880E+02
2071	6.345E+00	1.770E+03	1.189E-01	6.929E+03	5.549E+06	3.728E+02
2072	6.096E+00	1.701E+03	1.143E-01	6.658E+03	5.331E+06	3.582E+02
2073	5.857E+00	1.634E+03	1.098E-01	6.397E+03	5.122E+06	3.442E+02
2074	5.627E+00	1.570E+03	1.055E-01	6.146E+03	4.921E+06	3.307E+02
2075	5.407E+00	1.508E+03	1.013E-01	5.905E+03	4.728E+06	3.177E+02
2076	5.195E+00	1.449E+03	9.737E-02	5.673E+03	4.543E+06	3.052E+02
2077	4.991E+00	1.392E+03	9.355E-02	5.451E+03	4.365E+06	2.933E+02
2078	4.795E+00	1.338E+03	8.988E-02	5.237E+03	4.194E+06	2.818E+02
2079	4.607E+00	1.285E+03	8.636E-02	5.032E+03	4.029E+06	2.707E+02
2080	4.427E+00	1.235E+03	8.297E-02	4.834E+03	3.871E+06	2.601E+02
2081	4.253E+00	1.186E+03	7.972E-02	4.645E+03	3.719E+06	2.499E+02
2082	4.086E+00	1.140E+03	7.659E-02	4.463E+03	3.574E+06	2.401E+02
2083	3.926E+00	1.095E+03	7.359E-02	4.288E+03	3.433E+06	2.307E+02
2084	3.772E+00	1.052E+03	7.071E-02	4.120E+03	3.299E+06	2.216E+02
2085	3.624E+00	1.011E+03	6.793E-02	3.958E+03	3.169E+06	2.130E+02
2086	3.482E+00	9.714E+02	6.527E-02	3.803E+03	3.045E+06	2.046E+02
2087	3.345E+00	9.333E+02	6.271E-02	3.654E+03	2.926E+06	1.966E+02
2088	3.214E+00	8.967E+02	6.025E-02	3.511E+03	2.811E+06	1.889E+02
2089	3.088E+00	8.616E+02	5.789E-02	3.373E+03	2.701E+06	1.815E+02
2090	2.967E+00	8.278E+02	5.562E-02	3.241E+03	2.595E+06	1.744E+02
2091	2.851E+00	7.953E+02	5.344E-02	3.114E+03	2.493E+06	1.675E+02
2092	2.739E+00	7.641E+02	5.134E-02	2.991E+03	2.395E+06	1.609E+02
2093	2.632E+00	7.342E+02	4.933E-02	2.874E+03	2.302E+06	1.546E+02
2094	2.528E+00	7.054E+02	4.740E-02	2.761E+03	2.211E+06	1.486E+02
2095	2.429E+00	6.777E+02	4.554E-02	2.653E+03	2.125E+06	1.427E+02
2096	2.334E+00	6.512E+02	4.375E-02	2.549E+03	2.041E+06	1.372E+02
2097	2.243E+00	6.256E+02	4.204E-02	2.449E+03	1.961E+06	1.318E+02
2098	2.155E+00	6.011E+02	4.039E-02	2.353E+03	1.884E+06	1.266E+02
2099	2.070E+00	5.775E+02	3.880E-02	2.261E+03	1.810E+06	1.216E+02
2100	1.989E+00	5.549E+02	3.728E-02	2.172E+03	1.739E+06	1.169E+02

Geosyntec consultants

Toxic Air Pollutants Emission Rates and Ambient Air Impact Analysis

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Memorandum

Date:	29 March 2023
To:	Newland Park Landfill
From:	John Gill, Geosyntec Consultants, Inc. Yovanna Cortes Di Lena, Geosyntec Consultants, Inc.
Copy to:	Adam Gray, Geosyntec Consultants, Inc.
Subject:	Toxic Air Pollutants Emission Rates and Ambient Air Impact Analysis Newland Park Landfill Wicomico County, Maryland

INTRODUCTION

Geosyntec Consultants, Inc. (Geosyntec) has prepared this memorandum to summarize emission estimates and potential impact to ambient air quality from toxic air pollutants (TAP) from the Newland Park Landfill (NPLF, the Landfill, or the Site) from 2022 through 2025. The general purpose of this evaluation is to assess if the TAP emissions unreasonably endanger human health and to document compliance with the Code of Maryland Regulations (COMAR), Title 26, Subtitle 11, Chapter 15.06 (i.e., COMAR 26.11.15.06) as required by Section VI.1(D) of the Site's Part 70 Operating Permit No. 24-045-00208. Geosyntec completed the assessment by conservatively estimating future TAP emission rates from the Site for 2025, the year during which the highest quantity of gas is projected to be generated at the Landfill, and comparing those estimates to screening levels promulgated by the Maryland Department of the Environment (MDE). The remainder of the memorandum provides a summary of (i) the Site description and regulated emissions sources, (ii) site-wide TAP emission estimates, (iii) TAP emissions compared to MDE's ambient impact screening levels, (iv) air dispersion modeling, and (v) conclusions from the assessment.

SITE DESCRIPTION

NPLF is a municipal solid waste landfill located on Brick Kiln Road in Wicomico County, Maryland just northwest of the City of Salisbury. The property boundaries, site topography, and site features are identified in **Attachment A**. The Site covers an area of approximately 125 acres. A gas collection and control system (GCCS) is operated onsite to collect landfill gas (LFG), which is then controlled by a flare or beneficially used by the adjacent landfill gas to energy (LFGTE)

plant to generate electricity. Emissions sources onsite include controlled emissions from flaring landfill gas, fugitive emissions from the landfill, and two diesel powered grinders.

TAP EMISSION RATE ESTIMATES

Geosyntec estimated the total LFG that will be generated by the Landfill through 2025 using Environmental Protection Agency's (EPA) Landfill Gas Emissions Model (LandGEM). The LandGEM model incorporates annual waste acceptance (by ton) to estimate emissions. For the model, waste acceptance rates at NPLF were conservatively estimated to increase by five (5) percent annually based on the 2022 waste acceptance rate. The LandGEM estimated that NPLF will generated approximately 16,669,000 cubic meters (m^3) of landfill gas in 2025. Using the GCCS capture efficiency estimated in 2021 of 55 percent[1], Geosyntec projected that approximately 9,167,950 m^3 of the landfill gas that will be generated by NPLF in 2025 will be captured by the GCCS and 7,501,050 m^3 will be emitted as fugitive emissions directly to the atmosphere.

The LFG collected by the GCCS will either be sent to the LFGTE plant where it will be used to generate electricity or to the flare when the LFGTE plant is not operating.

To calculate TAP emissions from the Site in 2025, Geosyntec assumed that TAP concentrations in LFG were equal to default concentrations (part per million by volume) included in USEPA's LandGEM. Default concentrations for each TAP were then converted from parts per million by volume to micrograms per cubic meter ($\mu g/m^3$). TAP emissions were separated into fugitive emissions and those collected by the GCCS. For fugitive emission rates, Geosyntec assumed that all TAPs were discharged to the atmosphere. For gas collected by the GCCS, Geosyntec conservatively assumed all LFG was sent to the flare, with a flare TAP destruction efficiency of 98%. Detailed emission rate calculations for each TAP are summarized in **Table 1**.

MDE AMBIENT IMPACT ANALYSIS

COMAR 26.11.15.06 requires a demonstration that shows the total allowable emissions of each TAP discharged by the facility will not unreasonably endanger human health. MDE's guidance for demonstrating compliance with this regulation are detailed in COMAR 26.11.16. Supporting documentation from MDE on complying with this regulation are provided in **Attachment B**.

[1] Geosyntec, 2022. Emissions Certification Report, Calendar Year 2021, Newland Park Landfill, Wicomico County, Maryland. March.

MDE defines a Small Quantity Emitter as a source that is exempt from screening analysis for an individual TAP with consideration given to the calculated site-wide emission rate, MDE-determined screening level, and whether the pollutant is a Class I or Class II TAP. Class I TAPs are listed in COMAR 26.11.16.06. Class II TAPs are listed in COMAR 26.11.16.07. COMAR 26.11.15.03.B.(3)(a) defines an exemption for Class II TAPs from an ambient impact analysis if the short-term emission rate of the TAP is 0.5 pounds per hour (lbs/hr) or less and if the screening level[2] for the TAP is greater than 200 µg/m^3. COMAR 26.11.15.03.B.(3)(b) defines an exemption for Class I TAPs from ambient impact analysis if the short-term emission rate of the TAP is 0.5 lbs/hr or less, the annual emission rate is 350 pounds per year (lbs/yr) or less, the short-term screening level for the TAP is greater than 200 µg/m^3, and the annual screening level for the TAP is greater than 1 µg/m^3. Geosyntec's screening level analysis comparing facility-wide emissions rates for each TAP to the small quantity exemptions is summarized in **Table 2**. The screening analysis indicated that 23 pollutants were not exempted because estimated emissions were above the defined small quantity thresholds, or the screening levels were not above the regulatory threshold.

As detailed in COMAR 26.11.16.02.A(4) and the MDE Guidance Document titled "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)", the next step of the screening level analysis is the calculation of Allowable Emission Rates (AER) for each pollutant not exempted by the small quantity thresholds. If the short-term or annual site-wide emission rates for a TAP is more than the short-term or annual AER, additional ambient impact analysis is required for that TAP. The equations used to calculate AERs for each TAP above small quantity thresholds are detailed below.

Equation 1 - Annual AER for Shorter Stack, Possible Downwash, or Fugitive:

$$AER\ (lbs/yr) = 365 * Screening\ Level\ (\mu g/m^3)$$

Equation 2 - 1-hour or 8-hour AER for Shorter Stack, Possible Downwash, or Fugitive:

$$AER\ (lbs/hr) = 0.00358 * Screening\ Level\ (\mu g/m^3)$$

[2] MDE Screening Levels are found at this web address: https://mde.maryland.gov/programs/permits/airmanagementpermits/pages/toxicairpollutantregulationdocuments.aspx

Geosyntec's screening level analysis comparing facility-wide TAP emissions to each calculated AER is summarized in **Table 2**. That analysis showed emissions for eight TAPs were above an AER, which included:

- 1,1,2,2-Tetrachloroethane
- 1,2-Dichloroethane (ethylene dichloride)
- Acrylonitrile
- Benzene
- Bromodichloromethane
- Ethyl mercaptan (ethanethiol)
- Methyl mercaptan
- Vinyl chloride

A required, these eight TAPs were retained for air dispersion modeling to assess concentrations at the Site boundary.

AIR DISPERSION MODELING

Geosyntec completed air dispersion modeling using AERMOD (Version 21112). AERMOD was selected as it is the preferred model by the EPA for short-range (up to 50 kilometers) impact predictions. The data used in the analysis included:

- A five-year surface hourly meteorological dataset developed using records from the Dulles International Airport (KIAD).
- The upper-air dataset for Sterling, Virginia, which contains data from 2014 to 2018.
- A one arc-second terrain data file downloaded from EPA for the entire one-degree latitude/longitude area containing the Site used to prepare a receptor grid containing at total of 5,222 receptors spaced as follows:
  - 25 meter spacing along the fence lines;
  - 50 meter spacing out to 500 meters;
  - 100 meter spacing out to 2 kilometers;
  - 250 meter spacing out to 5 kilometers.
- The Landfill's fugitive TAP emissions were modeled as a volume source with a release height at 60 percent of the height of the top of the landfill. The flare's TAP emissions were modeled as a point source. Additional information on the AERMOD model is provided in

Attachment C. The AERMOD results are summarized in **Table 3**, which represent the combined offsite impacts from landfill fugitive emissions and the flare. The AERMOD results indicated that TAP concentrations modeled at the Site boundary were below screening levels.

- Geosyntec did note that the two diesel-powered grinders operated at the facility are also a potential source of benzene. However, these grinders were estimated to emit a negligible amount of benzene (4.1 E-03 lb/hr), which is almost an order of magnitude lower than the landfill (see **Attachment D**). The emissions are also from diesel engines, which have a high exhaust temperature and exit velocity that make plume interaction with the landfill unlikely. Further, the current predicted benzene impact from the Site is approximately 3 percent of the annual threshold, such that small additional emissions from the grinders would not be expected to affect the conclusions documented below.

CONCLUSION

The projected TAP emissions in 2025 from the Landfill were compared against exemption thresholds, and eventually modeled to show compliance with ambient impact requirements and MDE regulations. With these actions the facility has demonstrated that onsite operations will not unreasonably endanger human health.

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Attachments: Table 1 – Toxic Air Pollutant Emission Rate Estimates
Table 2 – Toxic Air Pollutant Screening Analysis
Table 3 – AERMOD Modeling Results
Attachment A – Site Plan
Attachment B – MDE Supporting Documentation
Attachment C – AERMOD Screening Analysis Documentation
Attachment D –Diesel Powered Grinders Emission Estimates

TABLE 1
TOXIC AIR POLLUTANT EMISSIOON RATE ESTIMATES

Newland Park Landfill
Wicomico County, Maryland

MD Listed Pollutant[1]	CAS Number	Class	Molecular Weight	LFG Concentration (ppmv)	LFG Concentration (µg/m³)	Landfill				Flare								Total Emissions[3]							
						Before Control				Before Control				After Control				Before Control				After Control[4]			
						Total Emissions (Mg/yr)	Total Emissions (tons/yr)	Total Emissions (lbs/hr)	Total Emissions (lbs/yr)	Total Emissions (Mg/yr)	Total Emissions (tons/yr)	Total Emissions (lbs/hr)	Total Emissions (lbs/yr)	Total Emissions (Mg/yr)	Total Emissions (tons/yr)	Total Emissions (lbs/hr)	Total Emissions (lbs/yr)	Total Emissions (Mg/yr)	Total Emissions (tons/yr)	Total Emissions (lbs/hr)	Total Emissions (lbs/yr)	Total Emissions (Mg/yr)	Total Emissions (tons/yr)	Total Emissions (lbs/hr)	Total Emissions (lbs/yr)
1,1,1-Trichloroethane (Methyl Chloroform)	71556	II	133.41	0.48	2,619.09	2.00E-02	2.20E-02	5.02E-03	4.40E+01	2.44E-02	2.69E-02	6.14E-03	5.38E+01	4.89E-04	5.38E-04	1.23E-04	1.08E+00	4.45E-02	4.89E-02	1.12E-02	9.78E+01	2.05E-02	2.25E-02	5.15E-03	4.51E+01
1,1,2,2-Tetrachloroethane	79345	II	167.85	1.11	7,620.18	5.77E-02	6.34E-02	1.45E-02	1.27E+02	7.05E-02	7.75E-02	1.77E-02	1.55E+02	1.41E-03	1.55E-03	3.54E-04	3.10E+00	1.28E-01	1.41E-01	3.22E-02	2.82E+02	5.91E-02	6.50E-02	1.48E-02	1.30E+02
1,1-Dichloroethane (ethylidene dichloride)	75343	II	98.96	2.35	9,511.49	7.42E-02	8.16E-02	1.86E-02	1.63E+02	9.07E-02	9.98E-02	2.28E-02	2.00E+02	1.81E-03	2.00E-03	4.56E-04	3.99E+00	1.65E-01	1.81E-01	4.14E-02	3.63E+02	7.60E-02	8.36E-02	1.91E-02	1.67E+02
1,1-Dichloroethene (vinylidene chloride)	75354	II	96.94	0.2	792.97	6.06E-03	6.66E-03	1.52E-03	1.33E+01	7.40E-03	8.14E-03	1.86E-03	1.63E+01	1.48E-04	1.63E-04	3.72E-05	3.26E-01	1.35E-02	1.48E-02	3.38E-03	2.96E+01	6.20E-03	6.82E-03	1.56E-03	1.36E+01
1,2-Dichloroethane (ethylene dichloride)	107062	I	98.96	0.41	1,659.45	1.27E-02	1.39E-02	3.18E-03	2.79E+01	1.55E-02	1.70E-02	3.89E-03	3.41E+01	3.10E-04	3.41E-04	7.78E-05	6.82E-01	2.82E-02	3.10E-02	7.07E-03	6.20E+01	1.30E-02	1.43E-02	3.26E-03	2.86E+01
1,2-Dichloropropane (propylene dichloride)	78875	II	112.99	0.18	831.83	6.35E-03	6.99E-03	1.60E-03	1.40E+01	7.77E-03	8.54E-03	1.95E-03	1.71E+01	1.55E-04	1.71E-04	3.90E-05	3.42E-01	1.41E-02	1.55E-02	3.55E-03	3.11E+01	6.51E-03	7.16E-03	1.63E-03	1.43E+01
2-Propanol (Isopropyl Alcohol)	67630	II	60.11	50.1	123,170.18	9.39E-01	1.03E+00	2.36E-01	2.07E+03	1.15E+00	1.26E+00	2.88E-01	2.52E+03	2.29E-02	2.52E-02	5.76E-03	5.05E+01	2.09E+00	2.29E+00	5.24E-01	4.59E+03	9.62E-01	1.06E+00	2.42E-01	2.12E+03
Acetone	67641	II	58.08	7.01	16,651.98	1.27E-01	1.40E-01	3.19E-02	2.79E+02	1.55E-01	1.71E-01	3.90E-02	3.41E+02	3.10E-03	3.41E-03	7.80E-04	6.83E+00	2.82E-01	3.10E-01	7.09E-02	6.21E+02	1.30E-01	1.43E-01	3.27E-02	2.86E+02
Acrylonitrile	107131	I	53.06	6.33	13,737.01	1.04E-01	1.15E-01	2.62E-02	2.30E+02	1.28E-01	1.40E-01	3.21E-02	2.81E+02	2.55E-03	2.81E-03	6.41E-04	5.62E+00	2.32E-01	2.55E-01	5.83E-02	5.11E+02	1.07E-01	1.18E-01	2.69E-02	2.35E+02
Benzene[2]	71432	I	78.12	1.91	6,102.63	4.64E-02	5.10E-02	1.16E-02	1.02E+02	5.67E-02	6.23E-02	1.42E-02	1.25E+02	1.13E-03	1.25E-03	2.85E-04	2.49E+00	1.03E-01	1.13E-01	2.59E-02	2.27E+02	4.75E-02	5.22E-02	1.19E-02	1.04E+02
Bromodichloromethane	75274	II	163.83	3.13	20,972.92	1.59E-01	1.75E-01	3.98E-02	3.49E+02	1.94E-01	2.13E-01	4.87E-02	4.27E+02	3.88E-03	4.27E-03	9.74E-04	8.53E+00	3.53E-01	3.88E-01	8.85E-02	7.76E+02	1.63E-01	1.79E-01	4.08E-02	3.58E+02
Butane	106978	II	58.12	5.03	11,956.79	9.08E-02	9.99E-02	2.28E-02	2.00E+02	1.11E-01	1.22E-01	2.79E-02	2.44E+02	2.22E-03	2.44E-03	5.57E-04	4.88E+00	2.02E-01	2.22E-01	5.07E-02	4.44E+02	9.30E-02	1.02E-01	2.34E-02	2.05E+02
Carbon disulfide	75150	II	76.13	0.58	1,805.95	1.38E-02	1.52E-02	3.46E-03	3.03E+01	1.69E-02	1.85E-02	4.23E-03	3.71E+01	3.37E-04	3.71E-04	8.47E-05	7.42E-01	3.07E-02	3.37E-02	7.70E-03	6.74E+01	1.41E-02	1.55E-02	3.55E-03	3.11E+01
Carbon monoxide	630080	II	28.01	141	161,530.06	1.22E+00	1.35E+00	3.08E-01	2.69E+03	1.50E+00	1.65E+00	3.76E-01	3.29E+03	2.99E-02	3.29E-02	7.52E-03	6.59E+01	2.72E+00	2.99E+00	6.84E-01	5.99E+03	1.25E+00	1.38E+00	3.15E-01	2.76E+03
Carbon tetrachloride	56235	I	153.84	0.004	25.17	1.92E-04	2.11E-04	4.83E-05	4.23E-01	2.35E-04	2.58E-04	5.90E-05	5.17E-01	4.70E-06	5.17E-06	1.18E-06	1.03E-02	4.27E-04	4.70E-04	1.07E-04	9.40E-01	1.97E-04	2.17E-04	4.95E-05	4.33E-01
Carbonyl sulfide	463581	II	60.07	0.49	1,203.86	9.19E-03	1.01E-02	2.31E-03	2.02E+01	1.12E-02	1.24E-02	2.82E-03	2.47E+01	2.25E-04	2.47E-04	5.64E-05	4.94E-01	2.04E-02	2.25E-02	5.13E-03	4.50E+01	9.42E-03	1.04E-02	2.37E-03	2.07E+01
Chlorobenzene	108907	II	112.56	0.25	1,150.92	8.79E-03	9.67E-03	2.21E-03	1.93E+01	1.07E-02	1.18E-02	2.70E-03	2.36E+01	2.15E-04	2.36E-04	5.40E-05	4.73E-01	1.95E-02	2.15E-02	4.91E-03	4.30E+01	9.01E-03	9.91E-03	2.26E-03	1.98E+01
Chlorodifluoromethane	75456	II	86.47	1.3	4,597.59	3.51E-02	3.86E-02	8.82E-03	7.73E+01	4.29E-02	4.72E-02	1.08E-02	9.44E+01	8.58E-04	9.44E-04	2.16E-04	1.89E+00	7.80E-02	8.58E-02	1.96E-02	1.72E+02	3.60E-02	3.96E-02	9.03E-03	7.91E+01
Chloroethane (ethyl chloride)	75003	II	64.52	1.25	3,298.57	2.62E-02	2.88E-02	6.58E-03	5.76E+01	3.20E-02	3.52E-02	8.04E-03	7.05E+01	6.40E-04	7.05E-04	1.61E-04	1.41E+00	5.82E-02	6.40E-02	1.46E-02	1.28E+02	2.68E-02	2.95E-02	6.74E-03	5.91E+01
Chloroform	67663	I	119.39	0.03	146.49	1.12E-03	1.23E-03	2.81E-04	2.46E+00	1.37E-03	1.50E-03	3.43E-04	3.01E+00	2.73E-05	3.01E-05	6.87E-06	6.02E-02	2.49E-03	2.73E-03	6.24E-04	5.47E+00	1.15E-03	1.26E-03	2.88E-04	2.52E+00
Chloromethane	74873	II	50.49	1.21	2,498.69	1.89E-02	2.08E-02	4.75E-03	4.16E+01	2.31E-02	2.54E-02	5.81E-03	5.09E+01	4.63E-04	5.09E-04	1.16E-04	1.02E+00	4.21E-02	4.63E-02	1.06E-02	9.25E+01	1.94E-02	2.13E-02	4.87E-03	4.27E+01
Dichlorobenzene	106467	II	147	0.21	1,262.58	9.64E-03	1.06E-02	2.42E-03	2.12E+01	1.18E-02	1.30E-02	2.96E-03	2.59E+01	2.36E-04	2.59E-04	5.92E-05	5.19E-01	2.14E-02	2.36E-02	5.38E-03	4.71E+01	9.88E-03	1.09E-02	2.48E-03	2.17E+01
Dichlorodifluoromethane	75718	II	120.91	15.7	77,639.55	6.04E-01	6.65E-01	1.52E-01	1.33E+03	7.39E-01	8.12E-01	1.85E-01	1.62E+03	1.48E-02	1.62E-02	3.71E-03	3.25E+01	1.34E+00	1.48E+00	3.37E-01	2.95E+03	6.19E-01	6.81E-01	1.55E-01	1.36E+03
Dichlorofluoromethane	75434	II	102.92	2.62	11,028.65	8.36E-02	9.19E-02	2.10E-02	1.84E+02	1.02E-01	1.12E-01	2.57E-02	2.25E+02	2.04E-03	2.25E-03	5.13E-04	4.50E+00	1.86E-01	2.04E-01	4.67E-02	4.09E+02	8.56E-02	9.42E-02	2.15E-02	1.88E+02
Dichloromethane (methylene chloride)	75092	II	84.94	14.3	49,678.61	3.71E-01	4.09E-01	9.33E-02	8.17E+02	4.54E-01	4.99E-01	1.14E-01	9.99E+02	9.08E-03	9.99E-03	2.28E-03	2.00E+01	8.25E-01	9.08E-01	2.07E-01	1.82E+03	3.81E-01	4.19E-01	9.56E-02	8.37E+02
Dimethyl sulfide (methyl sulfide)	75183	II	62.13	7.82	19,871.44	1.51E-01	1.67E-01	3.80E-02	3.33E+02	1.85E-01	2.04E-01	4.65E-02	4.07E+02	3.70E-03	4.07E-03	9.29E-04	8.14E+00	3.36E-01	3.70E-01	8.45E-02	7.40E+02	1.55E-01	1.71E-01	3.89E-02	3.41E+02
Ethane	74840	II	30.07	890	1,094,572.60	8.36E+00	9.20E+00	2.10E+00	1.84E+04	1.02E+01	1.12E+01	2.57E+00	2.25E+04	2.04E-01	2.25E-01	5.13E-02	4.50E+02	1.86E+01	2.04E+01	4.67E+00	4.09E+04	8.56E+00	9.42E+00	2.15E+00	1.88E+04
Ethanol	64175	II	46.08	27.2	51,262.82	3.89E-01	4.28E-01	9.76E-02	8.55E+02	4.75E-01	5.23E-01	1.19E-01	1.05E+03	9.50E-03	1.05E-02	2.39E-03	2.09E+01	8.64E-01	9.50E-01	2.17E-01	1.90E+03	3.98E-01	4.38E-01	1.00E-01	8.76E+02
Ethylbenzene	100414	II	106.16	4.61	20,016.26	1.53E-01	1.68E-01	3.83E-02	3.36E+02	1.86E-01	2.05E-01	4.68E-02	4.10E+02	3.73E-03	4.10E-03	9.36E-04	8.20E+00	3.39E-01	3.73E-01	8.51E-02	7.46E+02	1.56E-01	1.72E-01	3.92E-02	3.44E+02
Ethyl mercaptan (ethanethiol)	75081	II	62.13	2.28	5,793.72	4.46E-02	4.91E-02	1.12E-02	9.82E+01	5.46E-02	6.00E-02	1.37E-02	1.20E+02	1.09E-03	1.20E-03	2.74E-04	2.40E+00	9.92E-02	1.09E-01	2.49E-02	2.18E+02	4.57E-02	5.03E-02	1.15E-02	1.01E+02
Ethylene dibromide	106934	I	187.88	0.001	7.68	5.87E-05	6.46E-05	1.47E-05	1.29E-01	7.17E-05	7.89E-05	1.80E-05	1.58E-01	1.43E-06	1.58E-06	3.60E-07	3.16E-03	1.30E-04	1.43E-04	3.28E-05	2.87E-01	6.01E-05	6.61E-05	1.51E-05	1.32E-01
Fluorotrichloromethane	75694	II	137.38	0.76	4,270.30	3.26E-02	3.59E-02	8.19E-03	7.18E+01	3.99E-02	4.38E-02	1.00E-02	8.77E+01	7.97E-04	8.77E-04	2.00E-04	1.75E+00	7.25E-02	7.97E-02	1.82E-02	1.59E+02	3.34E-02	3.68E-02	8.39E-03	7.35E+01
n-Hexane	110543	II	86.18	6.57	23,157.57	1.78E-01	1.95E-01	4.46E-02	3.91E+02	2.17E-01	2.39E-01	5.45E-02	4.78E+02	4.34E-03	4.78E-03	1.09E-03	9.56E+00	3.95E-01	4.34E-01	9.92E-02	8.69E+02	1.82E-01	2.00E-01	4.57E-02	4.00E+02
Hydrogen sulfide	7783064	II	34.08	35.5	49,482.21	3.83E-01	4.22E-01	9.63E-02	8.43E+02	4.68E-01	5.15E-01	1.18E-01	1.03E+03	9.37E-03	1.03E-02	2.35E-03	2.06E+01	8.52E-01	9.37E-01	2.14E-01	1.87E+03	3.93E-01	4.32E-01	9.86E-02	8.64E+02
Mercury	7439976	II	200.61	2.92E-04	2.40	1.82E-05	2.00E-05	4.56E-06	4.00E-02	2.22E-05	2.44E-05	5.58E-06	4.89E-02	2.22E-05	2.44E-05	5.58E-06	4.89E-02	4.04E-05	4.44E-05	1.01E-05	8.88E-02	4.04E-05	4.44E-05	1.01E-05	8.88E-02
Methyl ethyl ketone	78933	II	72.11	7.09	20,910.43	1.60E-01	1.76E-01	4.02E-02	3.52E+02	1.95E-01	2.15E-01	4.91E-02	4.30E+02	3.91E-03	4.30E-03	9.82E-04	8.60E+00	3.55E-01	3.91E-01	8.93E-02	7.82E+02	1.64E-01	1.80E-01	4.11E-02	3.60E+02
Methyl isobutyl ketone	108101	II	100.16	1.87	7,660.50	5.94E-02	6.54E-02	1.49E-02	1.31E+02	7.27E-02	7.99E-02	1.82E-02	1.60E+02	1.45E-03	1.60E-03	3.65E-04	3.20E+00	1.32E-01	1.45E-01	3.32E-02	2.91E+02	6.09E-02	6.70E-02	1.53E-02	1.34E+02
Methyl mercaptan	74931	II	48.11	2.49	4,899.55	3.76E-02	4.13E-02	9.44E-03	8.27E+01	4.59E-02	5.05E-02	1.15E-02	1.01E+02	9.18E-04	1.01E-03	2.31E-04	2.02E+00	8.35E-02	9.18E-02	2.10E-02	1.84E+02	3.85E-02	4.23E-02	9.67E-03	8.47E+01
Pentane	109660	II	72.15	3.29	9,708.53	7.44E-02	8.18E-02	1.87E-02	1.64E+02	9.09E-02	1.00E-01	2.28E-02	2.00E+02	1.82E-03	2.00E-03	4.57E-04	4.00E+00	1.65E-01	1.82E-01	4.15E-02	3.64E+02	7.62E-02	8.38E-02	1.91E-02	1.68E+02
Perchloroethylene (tetrachloroethylene)	127184	II	165.83	3.73	25,298.40	1.92E-01	2.11E-01	4.81E-02	4.22E+02	2.34E-01	2.58E-01	5.88E-02	5.15E+02	4.69E-03	5.15E-03	1.18E-03	1.03E+01	4.26E-01	4.69E-01	1.07E-01	9.37E+02	1.96E-01	2.16E-01	4.93E-02	4.32E+02
Propane	74986	II	44.09	11	19,835.99	1.52E-01	1.67E-01	3.80E-02	3.33E+02	1.85E-01	2.04E-01	4.65E-02	4.07E+02	3.70E-03	4.07E-03	9.30E-04	8.15E+00	3.37E-01	3.70E-01	8.46E-02	7.41E+02	1.55E-01	1.71E-01	3.90E-02	3.41E+02
t-1,2-Dichloroethene	156605	II	96.94	2.84	11,260.11	8.48E-02	9.33E-02	2.13E-02	1.87E+02	1.04E-01	1.14E-01	2.60E-02	2.28E+02	2.07E-03	2.28E-03	5.21E-04	4.56E+00	1.88E-01	2.07E-01	4.73E-02	4.15E+02	8.69E-02	9.55E-02	2.18E-02	1.91E+02
Toluene[2]	108883	II	92.14	39.3	148,102.33	1.12E+00	1.23E+00	2.82E-01	2.47E+03	1.37E+00	1.51E+00	3.45E-01	3.02E+03	2.74E-02	3.02E-02	6.89E-03	6.04E+01	2.49E+00	2.74E+00	6.26E-01	5.49E+03	1.15E+00	1.26E+00	2.89E-01	2.53E+03
Trichloroethylene (trichloroethene)	79016	II	131.4	2.82	15,155.34	1.15E-01	1.26E-01	2.89E-02	2.53E+02	1.40E-01	1.55E-01	3.53E-02	3.09E+02	2.81E-03	3.09E-03	7.06E-04	6.18E+00	2.55E-01	2.81E-01	6.41E-02	5.62E+02	1.18E-01	1.30E-01	2.96E-02	2.59E+02
Vinyl chloride	75014	I	62.5	7.34	18,762.78	1.43E-01	1.57E-01	3.58E-02	3.14E+02	1.74E-01	1.92E-01	4.37E-02	3.83E+02	3.48E-03	3.83E-03	8.75E-04	7.66E+00	3.17E-01	3.48E-01	7.95E-02	6.97E+02	1.46E-01	1.61E-01	3.67E-02	3.21E+02
Xylenes	1330207	II	106.16	12.1	52,537.26	3.98E-01	4.38E-01	9.99E-02	8.75E+02	4.86E-01	5.35E-01	1.22E-01	1.07E+03	9.73E-03	1.07E-02	2.44E-03	2.14E+01	8.84E-01	9.73E-01	2.22E-01	1.95E+03	4.08E-01	4.48E-01	1.02E-01	8.97E+02

Notes:

[1] - Source is MDE Listed Pollutant from AP-42, Vol. I, CH 2.4 - Table 2.4-1, except where otherwise indicated (see Note 2).

[2] - Source is MDE Listed Pollutant from AP-42, Vol. I, CH 2.4 -Table 2.4-2.

[3] - Total emissions based on LandGEM Model for 2025.

[4] - Controlled Values based on 55% capture efficiency and 98% flare efficiency (except mercury, which is not controlled).

yr - year

µg/m³ - micrograms per cubic meter

hr - hour

lb - punds-mass

ppmv - parts per million by volume

TABLE 2
TOXIC AIR POLLUTANT SCREENING ANALYSIS

Newland Park Landfill
Wicomico County, Maryland

Pollutant[1]	Facility-Wide Emissions Rate		Screening Level[3,4]			Small Quantity Exemption Check[5,6,7]				Small Quantity Emitter Exemption (Y/N)	Allowable Emission Rate (AER)[8,9]			
	(lbs/hour)	(lbs/year)	1- hour (µg/m^3)	8-hour (µg/m^3)	Annual (µg/m^3)	Hourly Emissions <0.5 lb/hr	Annual Emissions <350 lb/yr	Short-term Screening Level >200 µg/m^3	Annual Screening Level >1 µg/m^3		Hourly (lb/hr)	Below Hourly AER (Y/N)	Annual (lb/yr)	Below Annual AER (Y/N)
1,1,1-Trichloroethane (Methyl Chloroform)	5.15E-03	4.51E+01	24,555.83	19,098.98	-	Y	Y	Y	-	Y	-	-	-	-
1,1,2,2-Tetrachloroethane	1.48E-02	1.30E+02	-	68.65	0.02	Y	Y	N	N	N	0.03	Y	7.3	N
1,1-Dichloroethane (ethylidene dichloride)	1.91E-02	1.67E+02	-	4,047.85	-	Y	Y	Y	-	Y	-	-	-	-
1,1-Dichloroethene (vinylidene chloride)	1.56E-03	1.36E+01	-	198.26	-	Y	Y	N	-	N	0.09	Y	-	-
1,2-Dichloroethane (ethylene dichloride)	3.26E-03	2.86E+01	-	404.74	0.04	Y	Y	Y	N	N	0.18	Y	14.6	N
1,2-Dichloropropane (propylene dichloride)	1.63E-03	1.43E+01	-	462.13	-	Y	Y	Y	-	Y	-	-	-	-
2-Propanol (Isopropyl Alcohol)	2.42E-01	2.12E+03	9,830.67	4,915.34	-	Y	N	Y	-	Y	-	-	-	-
Acetaldehyde[2]	2.67E-04	2.34E+00	450.41	2,300.00	0.50	Y	Y	Y	N	N	1.61	Y	182.5	Y
Acetone	3.27E-02	2.86E+02	17,806.75	11,871.17	-	Y	Y	Y	-	Y	-	-	-	-
Acrolein[2]	8.36E-05	7.32E-01	2.29	1.80	-	Y	Y	N	-	N	0.01	Y	-	-
Acrylonitrile	2.69E-02	2.35E+02	-	43.39	0.01	Y	Y	N	N	N	0.02	N	3.7	N
Anthracene[2]	1.30E-05	1.14E-01	-	20.00	-	Y	Y	N	-	N	0.01	Y	-	-
Benzene	1.19E-02	1.04E+02	79.87	15.97	0.13	Y	Y	N	N	N	0.29	Y	47.5	N
Bromodichloromethane	4.08E-02	3.58E+02	-	6.30	-	Y	N	N	-	N	0.00	N	-	-
Butane	2.34E-02	2.05E+02	-	23,770.96	-	Y	Y	Y	-	Y	-	-	-	-
Carbon disulfide	3.55E-03	3.11E+01	-	31.14	-	Y	Y	N	-	N	0.01	Y	-	-
Carbon monoxide	3.15E-01	2.76E+03	-	286.40	-	Y	N	Y	-	Y	-	-	-	-
Carbon tetrachloride	4.95E-05	4.33E-01	629.20	314.60	0.07	Y	Y	Y	N	N	2.25	Y	25.6	Y
Carbonyl sulfide	2.37E-03	2.07E+01	-	122.86	-	Y	Y	N	-	N	0.05	Y	-	-
Chlorobenzene	2.26E-03	1.98E+01	-	460.37	-	Y	Y	Y	-	Y	-	-	-	-
Chlorodifluoromethane	9.03E-03	7.91E+01	-	35,366.05	-	Y	Y	Y	-	Y	-	-	-	-
Chloroethane (ethyl chloride)	6.74E-03	5.91E+01	13.00	2.60	-	Y	Y	N	-	N	0.05	Y	-	-
Chloroform	2.88E-04	2.52E+00	-	488.26	0.04	Y	Y	Y	N	N	0.22	Y	14.6	Y
Chloromethane	4.87E-03	4.27E+01	525.00	105.00	-	Y	Y	Y	-	Y	-	-	-	-
Dichlorobenzene	2.48E-03	2.17E+01	-	601.27	-	Y	Y	Y	-	Y	-	-	-	-
Dichlorodifluoromethane	1.55E-01	1.36E+03	-	40,478.53	-	Y	N	Y	-	Y	-	-	-	-
Dichlorofluoromethane	2.15E-02	1.88E+02	-	420.94	-	Y	Y	Y	-	Y	-	-	-	-
Dichloromethane (methylene chloride)	9.56E-02	8.37E+02	-	1,736.81	2.00	Y	N	Y	Y	Y	-	-	-	-
Dimethyl sulfide (methyl sulfide)	3.89E-02	3.41E+02	-	254.15	-	Y	Y	Y	-	Y	-	-	-	-
Ethane	2.15E+00	1.88E+04	-	12,302.66	-	N	N	Y	-	N	5.51	Y	-	-
Ethanol	1.00E-01	8.76E+02	18,842.54	3,768.51	-	Y	N	Y	-	Y	-	-	-	-
Ethylbenzene	3.92E-02	3.44E+02	-	868.38	-	Y	Y	Y	-	Y	-	-	-	-
Ethyl mercaptan (ethanethiol)	1.15E-02	1.01E+02	-	12.71	-	Y	Y	N	-	N	0.01	N	-	-
Ethylene dibromide	1.51E-05	1.32E-01	-	1,430.00	0.01	Y	Y	Y	N	N	0.64	Y	1.8	Y
Fluorotrichloromethane	8.39E-03	7.35E+01	56,188.14	5,618.81	-	Y	Y	Y	-	Y	-	-	-	-
Formaldehyde[2]	8.37E-04	7.33E+00	-	20.30	0.08	Y	Y	N	N	N	0.01	Y	29.2	Y
n-Hexane	4.57E-02	4.00E+02	-	1,762.37	-	Y	N	Y	-	Y	-	-	-	-
Hydrogen sulfide	9.86E-02	8.64E+02	69.69	13.94	-	Y	N	N	-	N	0.25	Y	-	-
Mercury	1.01E-05	8.88E-02	0.30	0.10	-	Y	Y	N	-	N	0.00	Y	-	-
Methyl ethyl ketone	4.11E-02	3.60E+02	8,846.63	5,897.75	-	Y	N	Y	-	Y	-	-	-	-
Methyl isobutyl ketone	1.53E-02	1.34E+02	3,072.39	819.30	-	Y	Y	Y	-	Y	-	-	-	-
Methyl mercaptan	9.67E-03	8.47E+01	-	9.84	-	Y	Y	N	-	N	0.00	N	-	-
Naphthalene[2]	1.38E-03	1.21E+01	786.44	524.29	-	Y	Y	Y	-	Y	-	-	-	-
Pentane	1.91E-02	1.68E+02	-	17,705.52	-	Y	Y	Y	-	Y	-	-	-	-
Perchloroethylene (tetrachloroethylene)	4.93E-02	4.32E+02	6,781.19	1,695.30	-	Y	N	Y	-	Y	-	-	-	-
Propane	3.90E-02	3.41E+02	-	18,032.72	-	Y	Y	Y	-	Y	-	-	-	-
Propylene[2]	2.96E-02	2.59E+02	-	8,605.32	-	Y	Y	Y	-	Y	-	-	-	-
Pyrene[2]	3.93E-05	3.45E-01	-	20.00	-	Y	Y	N	-	N	0.01	Y	-	-
t-1,2-Dichloroethene	2.18E-02	1.91E+02	-	7,930.47	-	Y	Y	Y	-	Y	-	-	-	-

TABLE 2
TOXIC AIR POLLUTANT SCREENING ANALYSIS

Newland Park Landfill
Wicomico County, Maryland

Pollutant[1]	Facility-Wide Emissions Rate		Screening Level[3,4]			Small Quantity Exemption Check[5,6,7]				Small Quantity Emitter Exemption (Y/N)	Allowable Emission Rate (AER)[8,9]			
	(lbs/hour)	(lbs/year)	1- hour ($\mu g/m^3$)	8-hour ($\mu g/m^3$)	Annual ($\mu g/m^3$)	Hourly Emissions <0.5 lb/hr	Annual Emissions <350 lb/yr	Short-term Screening Level >200 $\mu g/m^3$	Annual Screening Level >1 $\mu g/m^3$		Hourly (lb/hr)	Below Hourly AER (Y/N)	Annual (lb/yr)	Below Annual AER (Y/N)
Toluene	2.89E-01	2.53E+03	-	753.62	-	Y	N	Y	-	Y	-	-	-	-
Trichloroethylene (trichloroethene)	2.96E-02	2.59E+02	1,343.56	537.42	-	Y	Y	Y	-	Y	-	-	-	-
Vinyl chloride	3.67E-02	3.21E+02	-	25.56	0.23	Y	Y	N	N	N	0.01	N	84.0	N
Xylenes	1.02E-01	8.97E+02	6,512.88	4,341.92	-	Y	N	Y	-	Y	-	-	-	-

Notes:

[1] - Pollutant from Table 1, except where otherwise indicated (see Note 2).

[2] - Pollutant emmited by diesel-powered grinders.

[3] - Screening levels from Maryland Department of the Environment link https://mde.maryland.gov/programs/permits/airmanagementpermits/pages/toxicairpollutantregulationdocuments.aspx

[4] - When a TAP has both a 1-hour and an 8-hour screening level, the 1-hour screening level is used for compliance purposes.

[5] - A Small Quantity Emitter is exempt from Control Technology and Ambient Impact Requirements. Emissions screening level is based on COMAR 26.11.15.03B.(3)(a) and (b).

[6] - Per COMAR 26.11.15.03.B.(3)(a), Class II TAPs are exempt from 26.11.15.05 and 26.11.15.06 if they are below the short term threshold and screening level.

[7] - Per COMAR 26.11.15.03.B.(3)(b), Class I TAPs are exempt from 26.11.15.05 and 26.11.15.06 if they are below the short term and annual thresholds/screening levels.

[8] - Annual Screening Level - Shorter Stack, Possible Downwash, or Fugitive: AER = 365 x Screening Level (SL). This equation is from the MDE document "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.03)".

[9] - 1- or 8-hour Screening Level - Shorter Stack, Possible Downwash, or Fugitive: AER = 0.00358 x SL. This equation is from the MDE document "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.03)".

$\mu g/m^3$ - micrograms per cubic meter

hr - hour

lb - punds-mass

yr - year

Shaded - Pollutant above an AER

TABLE 3
AERMOD MODELING RESULTS

Newland Park Landfill
Wicomico County, Maryland

Pollutant[(1)]	CAS Number	TAP Class	Screening Level			Off-site Impact		
			1- hour ($\mu g/m^3$)	8-hour ($\mu g/m^3$)	Annual ($\mu g/m^3$)	1- hour ($\mu g/m^3$)	8-hour ($\mu g/m^3$)	Annual ($\mu g/m^3$)
1,1,2,2-Tetrachloroethane	79345	II	-	68.65	0.02	-	0.04	0.005
1,2-Dichloroethane	107062	I	-	404.74	0.04	-	0.009	0.001
Acrylonitrile	107131	I	-	43.39	0.01	-	0.08	0.009
Benzene	71432	I	79.87	15.97	0.13	0.13	0.03	0.004
Bromodichloromethane	75274	II	-	6.3	-	-	0.11	-
Ethyl mercaptan	75081	II	-	12.71	-	-	0.03	-
Methyl mercaptan	74931	II	-	9.84	-	-	0.03	-
Vinyl chloride	75014	I	-	25.56	0.23	-	0.10	0.014

Notes:

(1) - Pollutant identified above an allowable emission rate in Table 2.

$\mu g/m^3$ - micrograms per cubic meter

Attachment A

Site Map

SITE PLAN

Geosyntec consultants
COLUMBIA, MARYLAND

DATE:	FEBRUARY 2023
PROJECT NO.	ME0843
DOCUMENT NO.	MD23017
FILE NO.	ME0843M8f001
FIGURE NO.	1

Attachment B

MDE Supporting Documentation

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Air and Radiation Management Administration ● Air Quality Permits Program
1800 Washington Boulevard ● Baltimore, Maryland 21230
(410)537-3225 ● 1-800-633-6101● www.mde.maryland.gov

FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Applicant Name: _____

Step 1: Quantify premises-wide emissions of Toxic Air Pollutants (TAP) from new and existing installations in accordance with COMAR 26.11.15.04. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Class I or Class II?	Screening Levels (µg/m^3)			Estimated Premises Wide Emissions of TAP			
						Actual Total Existing TAP Emissions	Projected TAP Emissions from Proposed Installation	Premises Wide Total TAP Emissions	
			1-hour	8-hour	Annual	(lb/hr)	(lb/hr)	(lb/hr)	(lb/yr)
ex. ethanol	*64175*	*II*	*18843*	*3769*	*N/A*	*0.60*	*0.15*	*0.75*	*1500*
ex. benzene	*71432*	*I*	*80*	*16*	*0.13*	*0.5*	*0.75*	*1.00*	*400*

(attach additional sheets as necessary.)

Note: Screening levels can be obtained from the Department's website (http://www.mde.maryland.gov) or by calling the Department.

Step 2: Determine which TAPs are exempt from further review. A TAP that meets either of the following Class I or Class II small quantity emitter exemptions is exempt from further TAP compliance demonstration requirements under Step 3 and Step 4.

Class II TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(a))
A Class II TAP is exempt from Step 3 and Step 4 if the Class II TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour, and any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 µg/m^3.

Class I TAP Small Quantity Emitter Exemption Requirements (COMAR 26.11.15.03B(3)(b))
A Class I TAP is exempt from Step 3 and Step 4 if the Class I TAP meets the following requirements: Premises wide emissions of the TAP shall not exceed 0.5 pounds per hour and 350 pounds per year, any applicable 1-hour or 8-hour screening level for the TAP must be greater than 200 µg/m^3, and any applicable annual screening level for the TAP must be greater than 1 µg/m^3.

If a TAP meets either the Class I or Class II TAP Small Quantity Emitter Exemption Requirements, no further review under Step 3 and Step 4 are required for that specific TAP.

FORM 5T: Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration

Step 3: Best Available Control Technology for Toxics Requirement (T-BACT, COMAR 26.11.15.05)
In the following table, list all TAP emission reduction options considered when determining T-BACT for the proposed installation. The options should be listed in order beginning with the most effective control strategy to the least effective strategy. Attach supporting documentation as necessary.

Target Pollutants	Emission Control Option	% Emission Reduction	Costs		T-BACT Option Selected? (yes/no)
			Capital	Annual Operating	
ex. ethanol and benzene	*Thermal Oxidizer*	*99*	*$50,000*	*$100,000*	*no*
ex. ethanol and benzene	*Low VOC materials*	*80*	*0*	*$100.000*	*yes*

(attach additional sheets as necessary)

Step 4: Demonstrating Compliance with the Ambient Impact Requirement (COMAR 26.11.15.06)
Each TAP not exempt in Step 2 must be individually evaluated to determine that the emissions of the TAP will not adversely impact public health. The evaluation consists of a series of increasingly non-conservative (and increasingly rigorous) tests. Once a TAP passes a test in the evaluation, no further analysis is required for that TAP. "Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)" provides guidance on conducting the evaluation. Summarize your results in the following table. Attach supporting documentation as necessary.

Toxic Air Pollutant (TAP)	CAS Number	Screening Levels ($\mu g/m^3$)			Premises Wide Total TAP Emissions		Allowable Emissions Rate (AER) per COMAR 26.11.16.02A		Off-site Concentrations per Screening Analysis ($\mu g/m^3$)			Compliance Method Used?
		1-hour	8-hour	Annual	(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)	1-hour	8-hour	Annual	AER or Screen
ex. ethanol	*64175*	*18843*	*3769*	*N/A*	*0.75*	*1500*	*0.89*	*N/A*	*N/A*	*N/A*	*N/A*	*AER*
ex. benzene	*71432*	*80*	*16*	*0.13*	*1.00*	*400*	*0.04*	*36.52*	*1.5*	*1.05*	*0.12*	*Screen*

(attach additional sheets as necessary)

If compliance with the ambient impact requirement cannot be met using the allowable emissions rate method or the screening analysis method, refined dispersion modeling techniques may be required. Please consult with the Department's Air Quality Permit Program prior to conducting dispersion modeling methods to demonstrate compliance.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
Air and Radiation Management Administration ● Air Quality Permits Program
1800 Washington Boulevard, Baltimore, Maryland 21230
(410)537-3225 ● 1-800-633-6101● www.mde.maryland.gov

GUIDANCE DOCUMENT

Demonstrating Compliance with the Ambient Impact Requirement under the Toxic Air Pollutant (TAP) Regulations (COMAR 26.11.15.06)

The ambient impact requirement states that sources must demonstrate that their emissions of toxic air pollutants (TAP) will not endanger public health. The ambient impact requirement is one of the more complex regulatory requirements to meet because there are several options that can be used to demonstrate compliance and some of the options require the use of an air dispersion model. This document provides guidance on the procedures for demonstrating compliance with the ambient impact requirement.

To determine which TAPs are subject to the ambient impact requirement, follow Steps 1 and 2 of the Department's Toxic Air Pollutant (TAP) Emissions Summary and Compliance Demonstration form (Form 5T). Each TAP subject to the ambient impact requirement must be individually evaluated to determine that the emissions of the TAP will not endanger public health. The evaluation consists of a series of tests. Once a TAP passes a test in the series, compliance is demonstrated for that TAP, and no further analysis is required for that TAP.

Test 1: Charts of Allowable Emissions in COMAR 26.11.16.02

The charts in COMAR 26.11.16.02 list maximum allowable, premises wide emission rates based on TAP screening levels. The charts are the result of very simple, conservative modeling and based on the following equations:

Type of Screening Level	Stack Sources (10 meters or greater and no downwash)	Shorter Stack, Possible Downwash, or Fugitive
Annual	AER = 1664 x SL	AER = 365 x SL
1-hour or 8-hour	AER = 0.0163 x SL	AER = 0.00358 x SL

AER = Allowable emission rate in pounds per year or pounds per hour, appropriately.
SL = The appropriate screening level for the TAP in micrograms per cubic meter ($\mu g/m^3$).
Downwash occurs if the stack height is less than 2.5 times the height of the building where the stack is located.

Compliance Demonstration Example – Test 1

Company ABC is installing a new paint spray booth with a stack of 15 meters and no downwash, operating 3000 hours per year. TAP emissions from the proposed installation and existing installations are summarized in the following table:

Pollutant	Emissions from the Proposed Installation (lb/hr)	Emissions from Existing Installations (lb/hr)	Total Premises Wide Emissions (lb/hr)	Total Premises Wide Emissions (lb/yr)
TAP A	0.75	1.5	2.25	6750
TAP B	0.05	0	0.05	150
TAP C	6.5	5.5	12	36,000
TAP D	1.5	2	3.5	10,500
TAP E	3	0	3	9000

The screening levels for each TAP are listed in the following table:

Pollutant	Screening Levels ($\mu g/m^3$)		
	1-hour	8-hour	Annual
TAP A	3260	2282	None
TAP B	100	70	None
TAP C	650	520	50
TAP D	50	None	None
TAP E	None	10	0.75

Based on the equations that govern the charts in COMAR 26.11.16.02, the maximum allowable, premises wide emission rate of each TAP based on a tall stack with no downwash is listed in the following table:

Pollutant	Premises Wide Allowable Emission Rate (AER)		
	1-hour (lb/hr)	8-hour (lb/hr)	Annual (lb/yr)
TAP A	53.1	37.2	N/A
TAP B	1.6	1.1	N/A
TAP C	10.6	8.5	83,200
TAP D	0.82	N/A	N/A
TAP E	N/A	0.16	1248

As shown in the tables above, emissions of TAP A and TAP B are less than all calculated allowable emission rates for those TAP. Compliance with the ambient impact requirement is demonstrated for TAP A and TAP B. TAP C, TAP D, and TAP E require further evaluation to demonstrate compliance with the ambient impact requirement.

Test 2: Hand Dispersion Calculations using Technical Memorandum TM 86-02

The Technical Memorandum TM 86-02 provides a methodology to predict off-site concentrations of a TAP. If the concentrations predicted by TM 86-02 are less than the screening level of the TAP for the appropriate averaging times, the emissions of the TAP would be in compliance with the ambient impact requirement. A copy of TM 86-02 is available from the Department's Air Quality Permit Program upon request.

While this option is still available for use, it is recommended that this test be skipped to proceed to the simple computer screening model step (Test 3 below). The use of a computer screening model takes a few minutes to set-up and to get results. TM 86-02 is a series of hand calculations that may be more susceptible to user error.

Test 3: Computer Screening Models

The most common computer screening models (SCREEN3, TSCREEN, or AERSCREEN) combine site-specific information (such as stack height, gas temperature, and other physical properties) and generic weather information to predict ground level concentrations of pollutants. The predicted concentrations of the model are compared to the screening level of the TAP. If the predicted concentrations are less than the screening level of the TAP for the appropriate averaging times, the emissions of the TAP would be in compliance with the ambient impact requirement. Computer screening models can be downloaded from the U.S. EPA at the following website address: http://www.epa.gov/scram001/dispersion_screening.htm

Compliance Demonstration Example – Test 3

Following the results of the example for Test 1, TAP C, TAP D, and TAP E still require further evaluation to demonstrate compliance with the ambient impact requirement. The results of SCREEN3 models for TAP C, TAP D, and TAP E are presented in the following table:

Pollutant	Off-Site Concentrations Predicted by SCREEN3 (µg/m^3)		
	1-hour	8-hour	Annual
TAP C	400	280	32
TAP D	43	N/A	N/A
TAP E	N/A	25	2.9

The predicted off-site concentrations for TAP C and TAP D are less than the screening levels for those TAP for the appropriate averaging times. Emissions of TAP C and TAP D are in compliance with the ambient impact requirement. TAP E requires further evaluation demonstrate compliance with the ambient impact requirement.

Test 4 – Refined Computer Models

Refined computer models, such as AERMOD, use actual meteorological data to predict off-site concentrations. Any refined model that is approved by the U.S. EPA and appropriate for the situation can be used. The Department generally requires five consecutive years of meteorological data to be used and that all regulatory default options are employed. It is recommended that persons using refined computer modeling to demonstrate compliance with the ambient impact requirement contact the Department's Air Quality Permits Program for guidance. Refined computer models can be downloaded from the U.S. EPA at the following website address: http://www.epa.gov/ttn/scram/dispersion_prefrec.htm

Compliance Demonstration Example – Test 4

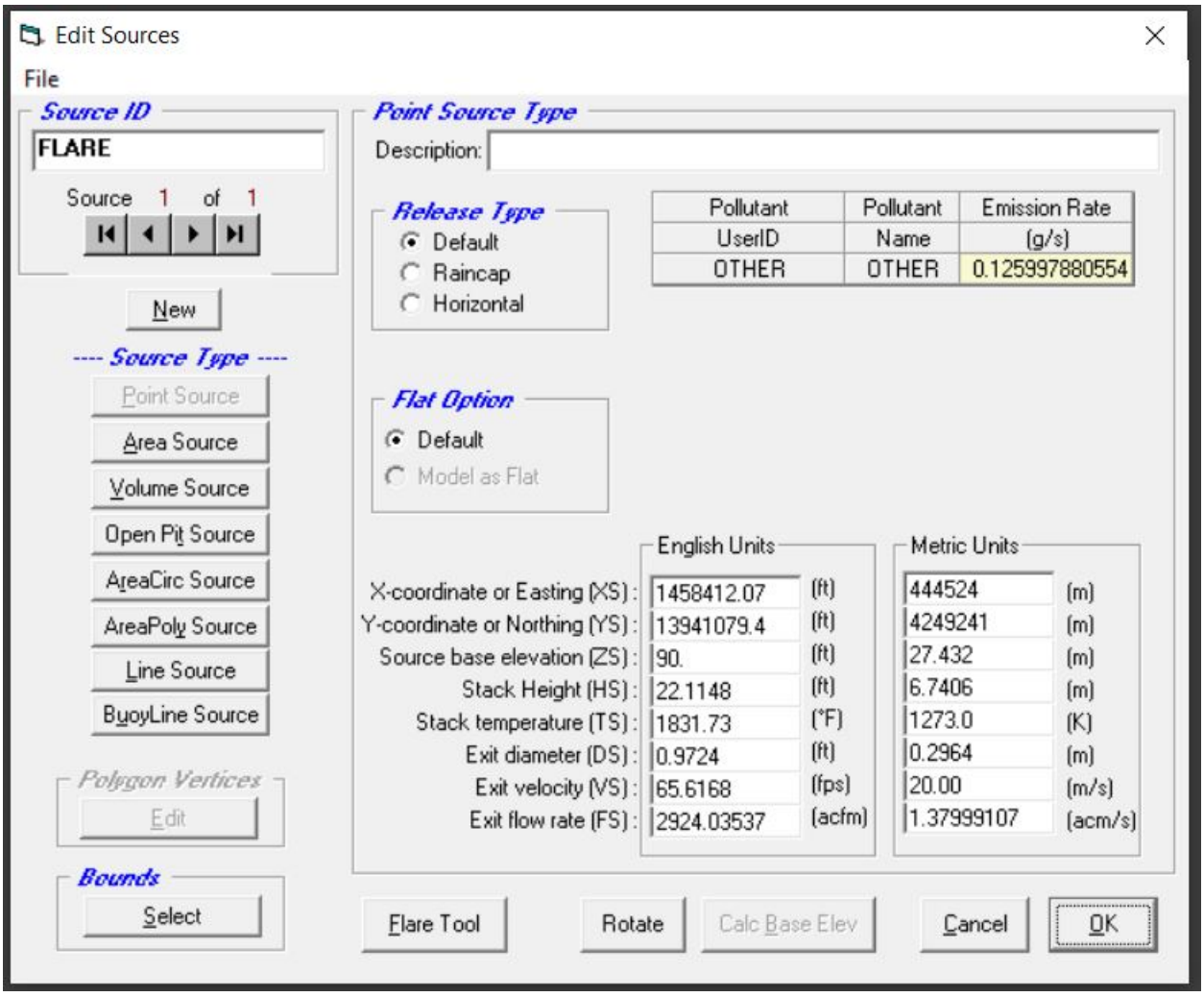
Following the results of the example for Test 3, TAP E still requires further evaluation to demonstrate compliance with the ambient impact requirement. The results of an AERMOD model for TAP E are presented in the following table:

Pollutant	Off-Site Concentrations Predicted by AERMOD (µg/m^3)		
	1-hour	8-hour	Annual
TAP E	N/A	5.6	0.64

The predicted off-site concentrations for TAP E are less than the screening levels for that TAP for the appropriate averaging times. Emissions of TAP E are in compliance with the ambient impact requirement.

Attachment C

AERMOD Screening Analysis Documentation


Edit Sources
File
Source ID
FLARE
Source 1 of 1
New
---- Source Type ----
Point Source
Area Source
Volume Source
Open Pit Source
AreaCirc Source
AreaPoly Source
Line Source
BuoyLine Source
Polygon Vertices
Edit
Bounds
Select
Point Source Type
Description:
Release Type
Default
Raincap
Horizontal
Pollutant UserID
Pollutant Name
Emission Rate (g/s)
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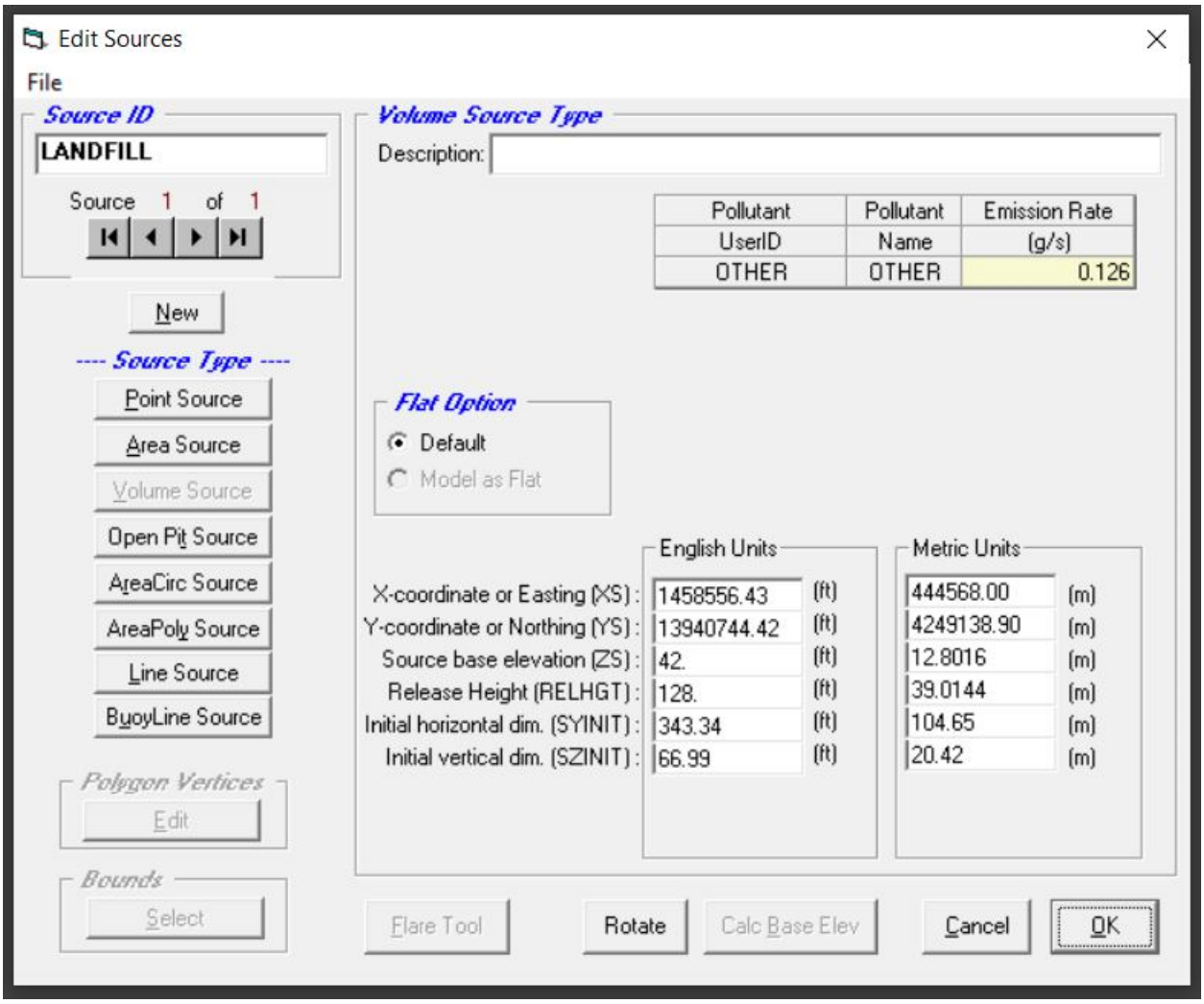
OTHER
0.125997880554
Flat Option
Default
Model as Flat
English Units
Metric Units
X-coordinate or Easting (XS): 1458412.07 (ft) 444524 (m)
Y-coordinate or Northing (YS): 13941079.4 (ft) 4249241 (m)
Source base elevation (ZS): 90. (ft) 27.432 (m)
Stack Height (HS): 22.1148 (ft) 6.7406 (m)
Stack temperature (TS): 1831.73 (°F) 1273.0 (K)
Exit diameter (DS): 0.9724 (ft) 0.2964 (m)
Exit velocity (VS): 65.6168 (fps) 20.00 (m/s)
Exit flow rate (FS): 2924.03537 (acfm) 1.37999107 (acm/s)
Flare Tool
Rotate
Calc Base Elev
Cancel
OK


Edit Sources
File
Source ID
LANDFILL
Source 1 of 1
New
---- Source Type ----
Point Source
Area Source
Volume Source
Open Pit Source
AreaCirc Source
AreaPoly Source
Line Source
BuoyLine Source
Polygon Vertices
Edit
Bounds
Select
Volume Source Type
Description:
Pollutant UserID
Pollutant Name
Emission Rate (g/s)
OTHER
OTHER
0.126
Flat Option
Default
Model as Flat
English Units
Metric Units
X-coordinate or Easting (XS): 1458556.43 (ft) 444568.00 (m)
Y-coordinate or Northing (YS): 13940744.42 (ft) 4249138.90 (m)
Source base elevation (ZS): 42. (ft) 12.8016 (m)
Release Height (RELHGT): 128. (ft) 39.0144 (m)
Initial horizontal dim. (SYINIT): 343.34 (ft) 104.65 (m)
Initial vertical dim. (SZINIT): 66.99 (ft) 20.42 (m)
Flare Tool
Rotate
Calc Base Elev
Cancel
OK

Attachment D

Diesel Powered Grinders Emission Estimates

Newland Park Landfill
Landfill Gas Constituent Emissions TAP Spreadsheet
Tub Grinder Emission Calculations

Inputs

Fuel Type	Diesel	-
Operating Schedule	8,760	hours
Equipment Rating	760	hp

Calculations

Pollutant	Emission Factor[1,2]		Emission Rate	
	(lb/MMBtu)	(lb/hp-hr)	(lb/hr)	(lb/yr)
Benzene	7.76E-04	5.43E-06	4.13E-03	3.62E+01
Toluene	2.81E-04	1.97E-06	1.49E-03	1.31E+01
Xylenes	1.93E-04	1.35E-06	1.03E-03	8.99E+00
Propylene	2.79E-03	1.95E-05	1.48E-02	1.30E+02
Formaldehyde	7.89E-05	5.52E-07	4.20E-04	3.68E+00
Acetaldehyde	2.52E-05	1.76E-07	1.34E-04	1.17E+00
Acrolein	7.88E-06	5.52E-08	4.19E-05	3.67E-01
Naphthalene	1.30E-04	9.10E-07	6.92E-04	6.06E+00
Anthracene	1.23E-06	8.61E-09	6.54E-06	5.73E-02
Pyrene	3.71E-06	2.60E-08	1.97E-05	1.73E-01

1. Emission Factors are from AP-42 Tables 3.4-3 and 3.4-4.
2. To convert the emission factors a brake-specific furl consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Table 3.3-1.

Newland Park Landfill
Landfill Gas Constituent Emissions TAP Spreadsheet
Horizontal Grinder Emission Calculations

Inputs

Fuel Type	Diesel	-
Operating Schedule	8,760	hours
Equipment Rating	755	hp

Calculations

Pollutant	Emission Factor[1,2]		Emission Rate	
	(lb/MMBtu)	(lb/hp-hr)	(lb/hr)	(lb/yr)
Benzene	7.76E-04	5.43E-06	4.10E-03	3.59E+01
Toluene	2.81E-04	1.97E-06	1.49E-03	1.30E+01
Xylenes	1.93E-04	1.35E-06	1.02E-03	8.94E+00
Propylene	2.79E-03	1.95E-05	1.47E-02	1.29E+02
Formaldehyde	7.89E-05	5.52E-07	4.17E-04	3.65E+00
Acetaldehyde	2.52E-05	1.76E-07	1.33E-04	1.17E+00
Acrolein	7.88E-06	5.52E-08	4.16E-05	3.65E-01
Naphthalene	1.30E-04	9.10E-07	6.87E-04	6.02E+00
Anthracene	1.23E-06	8.61E-09	6.50E-06	5.69E-02
Pyrene	3.71E-06	2.60E-08	1.96E-05	1.72E-01

1. Emission Factors are from AP-42 Tables 3.4-3 and 3.4-4.
2. To convert the emission factors a brake-specific furl consumption of 7,000 Btu/hp-hr was used as specified in AP-42 Table 3.3-1.

ATTACHMENT 4

2022 COMPLIANCE CERTIFICATION REPORT

Prepared for

Wicomico County Department of Public Works
6948 Brick Kiln Road
Salisbury, Maryland 21801

COMPLIANCE CERTIFICATION REPORT

CALENDAR YEAR 2022

Newland Park Landfill
Wicomico County, Maryland

Prepared by

Geosyntec consultants

10211 Wincopin Circle, 4th Floor
Columbia, Maryland 21044

Project Number: ME0843M
Document Number: MD23014

March 2023

United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Whitelock (First) Mark (MI) ____

Title Deputy Director of Public Works

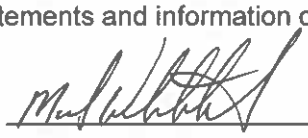
Street or P.O. Box 6948 Brick Kiln Road

City Salisbury State MD ZIP 21801 - ____

Telephone (410) 548 - 4935 Ext. ____ Facsimile (410) 548 - 4941

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed) 

Name (typed) Mark Whitelock Date: 3 / 28 / 23

INSTRUCTIONS FOR CTAC
CERTIFICATION OF TRUTH, ACURACY, and COMPLETENESS

Information Collection Burden Estimates

The public reporting and recordkeeping burden for this collection of information is estimated to average 247 hours per respondent per year. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

DETAILED INSTRUCTIONS

This form is for the responsible official to certify that submitted documents (i.e., permit applications, updates to application, reports, and any other information required to be submitted as a condition of a permit) are true, accurate, and complete.

This form should be completed and submitted with each set of documents sent to the permitting authority. It may be used at time of initial application, at each step of a phased application submittal, for application updates, as well as to accompany routine submittals required as a term or condition of a permit.

Section A - Title V permit applications must be signed by a responsible official. The definition of responsible official can be found at 40 CFR 70.2.

Section B - The responsible official must sign and date the certification of truth, accuracy and completeness. This should be done after all application forms are complete and the responsible official has reviewed the information. Normally this would be the last form completed before the package of forms is mailed to the permitting authority.

United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
ANNUAL COMPLIANCE CERTIFICATION (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-045-00208

Reporting Period: Beg. 01 / 01 / 2022 End. 12 / 31 / 2022

Source / Company Name Newland Park Landfill

Mailing Address: Street or P.O. Box 6948 Brick Kiln Road

City Salisbury State MD ZIP 21801 -

Contact person Mark Whitelock Title Deputy Director of Public Works

Telephone (410) 548 - 4935 Ext.

Continued on next page

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.0 –

This is an information condition and has no applicable requirements.

Compliance Methods for the Above (Description and Citation):

Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.1 –

This condition requires compliance with the testing, recordkeeping, and reporting requirements indicated in the following conditions.

Compliance Methods for the Above (Description and Citation):

(see the following conditions)

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.2 –

This condition requires the Permittee to submit a periodic estimate of NMOC emissions (NMOC Emission Rate Report) if the NMOC emission rate is less than 50 megagrams/year. The owner or operator is required to submit a periodic estimate of the emission rate report as provided in §60.757(b)(1) and retest the site-specific NMOC concentration every five years using the methods specified in this section.

Compliance Methods for the Above (Description and Citation):

Tier 2 NMOC testing was conducted on the Emissions Unit in June and July of 2020. The results of the testing were presented to the Maryland Department of the Environment (MDE) in a letter report entitled "NMOC Sampling Report and Five-Year Emission Estimates for Newland Park Landfill, Wicomico County, Maryland" dated 24 September 2020 (2020 Report). As indicated in the 2020 Report, the NMOC emissions in 2022 were 20.5 Mg/yr, which is well below the 50 Mg/yr threshold for the condition and the 34 Mg/yr threshold for the new EPA Emission Guideline (EG) as specified in 40 CFR 62.16714(e). The calculated NMOC emissions in the 2020 Report were based on assumed waste tonnages for 2020-2025; however, the actual waste tonnage accepted in 2022 was 21,229 tons less than the assumed value; therefore the estimate from the 2020 CCR Report is considered conservative. The site is due for NMOC testing again in June 2025.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.3 –

There are no monitoring requirements applicable to the EU.

Compliance Methods for the Above (Description and Citation):

Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):
EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.4 –

This condition requires the Permittee to keep all records required by the permit for at least five years and requires the Permittee to make such records available to the Department upon request.

Compliance Methods for the Above (Description and Citation):

Records required by the permit for at least five years are kept onsite and are available to the Department upon request.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1, Condition 1.5 –

This condition requires the Permittee to amend and resubmit the design capacity report if the Permittee increases the maximum design capacity of the Newland Park Landfill after November 1, 1997. The Permittee shall amend and resubmit the design capacity report within 90 days of the issuance of an air quality Permit to Construct or a permit from the MDE Waste Management Administration that authorizes the increase or any other change that increases the maximum design capacity of the landfill.

The Permittee shall estimate the annual NMOC emission rate calculated using the formula and procedures as described in 40 CFR §60.754(a). The Permittee shall prepare and submit an updated NMOC emission rate report by November 1 of each year. A less frequent emission rate report may be submitted upon approval by the Department in accordance with COMAR 26.11.19.20D(6).

The Permittee may, upon approval from the Department, submit a combined report to satisfy the NMOC reporting requirements and the annual Emissions Certification requirements. Such report shall be submitted by April 1 of each year for the previous calendar year.

Compliance Methods for the Above (Description and Citation):

Tier 2 NMOC testing was conducted on the Emissions Unit in June and July of 2020. The results of the testing were presented to the MDE in a letter report entitled “NMOC Sampling Report and Five-Year Emission Estimates for Newland Park Landfill, Wicomico County, Maryland” dated 24 September 2020 (2020 Report). As indicated in the 2020 Report, the NMOC emissions in 2022 were 20.5 Mg/yr, which is well below the 50 Mg/yr threshold for the condition and the 34 Mg/yr threshold for the new EPA EG as specified in 40 CFR 62.16714(e). The calculated NMOC emissions in the 2020 Report were based on assumed waste tonnages for 2020-2025; however, the actual waste tonnage accepted in 2022 was 21,229 tons less than the assumed value; therefore the estimate from the 2020 CCR Report is considered conservative. The site is due for NMOC testing again in June 2025.

The design capacity of the facility was not modified during the reporting period.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-01 – Active Landfill

Permit Term (Describe requirements and cross-reference)

Table IV-1A and Table IV-1B Conditions

Conditions listed in Tables IV-1A and IV-1B are applicable if calculated NMOC emissions increase to 55 tons per year (50 Mg/yr) or more.

Compliance Methods for the Above (Description and Citation):

Tier 2 NMOC testing was conducted on the Emissions Unit in June and July of 2020. The results of the testing were presented to the MDE in a letter report entitled "NMOC Sampling Report and Five-Year Emission Estimates for Newland Park Landfill, Wicomico County, Maryland" dated 24 September 2020 (2020 Report). As indicated in the 2020 Report, the NMOC emissions in 2022 were 20.5 Mg/yr, which is well below the 50 Mg/yr threshold for the condition and the 34 Mg/yr threshold for the new EPA EG as specified in 40 CFR 62.16714(e). The calculated NMOC emissions in the 2020 Report were based on assumed waste tonnages for 2020-2025. The actual waste tonnage accepted in 2022 was 21,229 tons less than the assumed value; therefore the estimate from the 2020 CCR Report is considered conservative. The site is due for NMOC testing again in June 2025.

The design capacity of the facility was not modified during the reporting period. Thus, conditions listed in Tables IV-1A and IV-1B are not applicable as calculated NMOC emissions have not increased to 55 tons per year (ton/yr) (50 Mg/yr) threshold for the condition and 37 tons/year (34 Mg/yr) threshold for the new EPA EG as specified in 40 CFR 62.16714(e), or more.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.0 –

This is an information condition and has no applicable requirements.

Compliance Methods for the Above (Description and Citation):

Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.1 –

This condition outlines the standards/limits that apply to the Permittee for the landfill gas flare system which are as follows:

A. In Wicomico County Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which has more than 20 percent opacity. Those standards do not apply during periods of start-up and process modification or adjustment, or occasional cleaning of control equipment, if the visible emissions are not greater than 40 percent opacity, and the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

B. The utility flare shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. The owner or operator shall adhere to the heat content as specified in 40 CFR 60.18(c)(3)(ii) and the maximum tip velocity as specified in 40 CFR 60.18(c)(4).

C. The flare must be operated with a flame present at all times. If the calculated NMOC emission rate is equal to or greater than 50 megagrams/year, the permittee shall route all collected gas to a compliant control system and the flare must be designed and operated in accordance with applicable regulations. This section also requires the Permittee to operate and maintain the flare system in accordance with the recommendations.

Compliance Methods for the Above (Description and Citation):

A. No visible emissions from the flare were noted during the reporting period.

B. The flare was designed to operate with no visible emissions and no visible emissions were noted during the reporting period. The gas collected at the site is used by the adjacent landfill gas to energy (LFGTE) plant and the flare only operates when the gas is not being used by the LFGTE plant. Since the LFGTE plant uses most of the gas, the flare rarely operates and the operating schedule is intermittent. As a result, Method 22 of Appendix A, used to demonstrate compliance with visible emissions of the subpart (40 CFR 60.18), was not performed during the reporting period as it requires two hours of continuous operations. Although, Method 22 was not completed, no visible flare emissions were noted during the reporting period. The landfill gas collected during the reporting period had an average methane content of approximately 50% during the reporting period. The heating value of landfill gas with 50% methane is approximately 500 British Thermal Units (BTU)/ Standard Cubic Foot (SCF) and exceeds the required heating value for both assisted (300 BTU/SCF) and non-assisted (200 BTU/SCF) flares and the flare was designed to be compliant with the maximum tip velocity requirements.

C. The condition for continuous flare operation is not applicable as flare operation is intermittent and only operates when the LFGTE plant is not using the gas. Heat sensing devices are installed on the flare and are used to monitor for the presence of a flame. The automated system is programmed to only allow flow to the flare when a flame is present. As noted previously, NMOC emissions during the reporting period were estimated to be less than 50 Mg/year threshold for the condition and the 34 Mg/yr threshold for the new EPA EG as specified in 40 CFR 62.16714(e). Thus, the operational standards applicable when NMOC emissions exceed 50 Mg/year threshold for the condition and the 34 Mg/yr threshold for the new EPA EG as specified in 40 CFR 62.16714(e) are not applicable. The flare system was maintained and operated in accordance with the manufacturers recommendations during the reporting period.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.2 –

This condition outlines the testing requirements for the flare system which are as follows:

A. For control of visible emissions, Method 22 of Appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

B. There are no monitoring requirements to demonstrate compliance with air standards.

C. There are no monitoring requirements to demonstrate compliance with operational standards.

Compliance Methods for the Above (Description and Citation):

A. The gas collected at the site is used by the adjacent LFGTE plant and the flare only operates when the gas is not being used by the LFGTE plant. Since the LFGTE plant utilizes most of the gas, the flare rarely operates and the operating schedule is intermittent. As a result, Method 22 of Appendix A, used to demonstrate compliance with visible emissions of the subpart (40 CFR 60.18), was not performed during the reporting period as it requires two hours of continuous operations. Although, Method 22 was not completed, no visible flare emissions were noted during the reporting period.

B. Not applicable.

C. Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.3 –

This condition outlines the monitoring requirements for the flare system which are as follows:

A. For control of visible emissions, the Permittee shall properly operate and maintain the flare in a manner to minimize visible emissions.

B. There are no monitoring requirements to demonstrate compliance with air standards.

C. To demonstrate compliance with operational standards, the owner or operator shall install, calibrate, maintain, and operate according to the manufacturer's specifications for the following equipment:

1) A heat sensing device at the pilot light or the flame itself to indicate the continuous presence of a flame.

2) A device that records flow to or bypass of the flare. The operator shall either: (i) install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or (ii) secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

Compliance Methods for the Above (Description and Citation):

A. The flare system was maintained and operated in accordance with the manufacturer's recommendations during the reporting period. No visible emissions were noted.

B. Not applicable.

C. Heat sensing devices (UV flame scanner and a flare thermocouple) are installed on the flare. The devices were operated and maintained in accordance with manufacturer's recommendations. A flow meter monitors gas extracted from the landfill and measurements are recorded on the data logger. The volume of gas sent to the LFGTE plant is measured by a flow meter operated by the LFGTE plant.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.4 –

This condition outlines the record keeping requirements for the flare system which are as follows:

A. For control of visible emissions, the Permittee shall retain records of preventative maintenance on site for at least five years and make those records available to the Department upon request.

B. There are no record keeping requirements to demonstrate compliance with air standards.

C. To demonstrate compliance with operational standards, the Permittee shall keep up-to-date, readily accessible records of the flame or flare pilot flame monitoring as specified under 40 CFR 62.16722(c) for non-enclosed flares and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot is absent during those instances when the utility flare is being used while it is out-of-service. The Permittee shall keep up-to-date, readily accessible records of the control device vendor specifications until the control device is removed.

Compliance Methods for the Above (Description and Citation):

A. Records of preventative maintenance for the last five years are available onsite.

B. Not applicable.

C. Applicable records are available onsite.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-02 – Landfill Gas Flare System

Permit Term (Describe requirements and cross-reference)

Table IV-2, Condition 2.5 –

This condition outlines the reporting requirements for the flare system which are as follows:

A. For control of visible emissions, the Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations".

B. There are no record keeping requirements to demonstrate compliance with air standards.

C. There are no record keeping requirements to demonstrate compliance with operational standards.

Compliance Methods for the Above (Description and Citation):

A. There were no noted incidents of visible emissions during the reporting period.

B. Not applicable.

C. Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.0 –

This is an information condition and has no applicable requirements.

Compliance Methods for the Above (Description and Citation):

Not applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.1 –

This condition outlines the applicable standards/limits that apply to the Permittee for the diesel-powered tub grinder which are as follows:

A. For control of visible emissions, this condition requires the following: (1) in Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building other than water, which is greater than 20 percent opactity; (2) The visible emissions standards do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if additional opacity and occurrence criteria are met; (3) emissions must not be greater than 10 percent opacity during idling or greater than 40 percent opacity during operating mode except under the specified conditions.

C. For control of sulfur oxides, this condition stipulates that the Permittee may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of 0.3 percent distillate fuels with sulfur content limitations of 15 parts per million.

D. To demonstrate compliance with operational limits, this condition requires that only diesel

fuel be used in the tub grinder, unless an alternate fuel is approved by the Department, and that the tub grinder engine does not operate more than 2,464 hours during the year.

Compliance Methods for the Above (Description and Citation):

A. Visible emissions from the tub grinder engine were not noted during the reporting period.

C. The fuel used in the tub grinder is certified by the supplier to meet the sulfur content requirements.

D. Only diesel fuel was used in the tub grinder engine and the tub grinder engine did not operate more than 2,464 hours during the year. Operating hours for the tub grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.2 –

This condition outlines the testing requirements for the engine which are as follows:

A. There are no testing requirements to demonstrate control of visible emissions.

B. There are no testing requirements to demonstrate control of sulfur oxides.

C. There are no testing requirements to demonstrate compliance with operational standards.

Compliance Methods for the Above (Description and Citation):

A. Not Applicable.

B. Not Applicable.

C. Not Applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.3 –

This condition outlines the monitoring requirements for the engine which are as follows:

A. For control of visible emissions, this condition requires the following: (1) Permittee shall properly operate and maintain the tub grinder; (2) Permittee shall properly operate and maintain engines in a matter to minimize visible emissions.

B. For control of sulfur oxides, this condition stipulates that the Permittee shall obtain a certification from the supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil.

C. For operational limit, this condition requires the Permittee to properly monitor the operating hours for each of the engines powering the tub grinder.

Compliance Methods for the Above (Description and Citation):

A. The tub grinder and engines were properly operated and maintained. Visible emissions were not noted.

B. The fuel used in the tub grinder is certified by the supplier to meet the sulfur content requirements. The County road division maintains the certification records.

C. The tub grinder engine did not operate more than 2,464 hours during the year. Operating hours for the tub grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.4 –

This condition outlines the record keeping requirements for the diesel-powered tub grinder which are as follows:

All records must be maintained for a period of five years.

A. For control of visible emissions, this condition specifies the records of preventative maintenance be retained onsite for at least five years and made available to the department on request.

B. For control of sulfur oxides, this condition requires that the Permittee retain annual fuel supplier certifications, indicating that the fuel oil is in compliance with the regulation, for a period of at least 5 years.

C. To demonstrate compliance with operational limits, this condition requires that the Permittee: (a) maintain a record of operating hours for the engine that drives the tub grinder; (b) report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification.

Compliance Methods for the Above (Description and Citation):

Applicable records for the tub grinder from the last five years are available onsite.

A. Records of preventative maintenance from the last five years are available onsite.

B. The County road division maintains the fuel certification records and are available to the Department upon request.

C. The tub grinder operating hours are recorded and are available onsite. The amount of fuel oil combusted and operating hours for the tub grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-03 – Diesel Powered Tub Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-3, Condition 3.5 –

This condition specifies reporting requirements for the diesel-powered tub grinder which are as follows:

A. For control of visible emissions, the Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.

B. For control of sulfur oxides, the Permittee shall report annual fuel supplier certification to the Department upon request.

C. To demonstrate compliance with operational limits, the Permittee shall report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification.

Compliance Methods for the Above (Description and Citation):

A. No visible emissions were noted during the reporting period.

B. The County road division maintains the fuel certification records and are available to the Department upon request.

C. The operating hours and fuel combusted are provided in the Annual Emission Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.0

This is an information condition and has no applicable requirements.

Compliance Methods for the Above (Description and Citation):

Not applicable

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.1 –

This condition outlines the standards/limits that apply to the Permittee for the diesel-powered horizontal grinder which are as follows:

A. For control of visible emissions, this condition requires the following: (1) in Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building other than water, which is greater than 20 percent opactity; (2) the visible emissions standards do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if additional opacity and occurrence criteria are met; and (3) emissions must not be greater than 10 percent opacity during idling or greater than 40 percent opacity during operating mode except under the specified conditions.

B. For control of sulfur oxides, this condition stipulates that the Permittee may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of 0.3 percent distillate fuel oils.

C. To demonstrate compliance with operational limits, this condition requires the following: (1) the horizontal grinder shall be operated in accordance with specifications included in the application, and any operating procedures recommended by equipment vendors unless the Department provides alternative operating procedures; (2) the engine shall be a nonroad engine as defined in 40 CFR 1068.30, unless the Permittee complies with the stationary engine requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ and 40 CFR 63 Subpart ZZZZ; (3) only diesel fuel shall be burned in the horizontal grinder, unless an alternate fuel is approved by the Department; (4) the Permittee shall properly operate and maintain the grinder to prevent visible emissions; and (5) the horizontal grinder shall operate no more than 1,500 hours any 12-month rolling period.

Compliance Methods for the Above (Description and Citation):

A. Visible emissions from the horizontal grinder engine were not noted during the reporting period.

B. The fuel used in the horizontal grinder is certified by the supplier to meet the sulfur content requirements.

C. The horizontal grinder was operated in accordance with specification included in the application and was nonroad as defined in 40 CFR 1068.30. Only diesel fuel was used in the horizontal grinder engine. The horizontal grinder was operated and maintained in accordance with the manufacturer's recommendations to minimize emissions and did not operate more than 1,500 hours during the year. Operating hours for the tub grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.2 –

This condition outlines the testing requirements for the engine which are as follows:

A. There are no testing requirements to demonstrate control of visible emissions.

B. There are no testing requirements to demonstrate control of sulfur oxides.

C. There are no testing requirements to demonstrate compliance with operational standards.

Compliance Methods for the Above (Description and Citation):

A. Not Applicable.

B. Not Applicable.

C. Not Applicable.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.3 –

This condition outlines the monitoring requirements for the engine which are as follows:

A. For control of visible emissions, this condition requires the Permittee to properly operate and maintain the horizontal grinder and associated engines.

B. For control of sulfur oxides, this condition stipulates that the Permittee shall obtain a certification from the supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil.

C. For operational limit, this condition requires the Permittee to properly monitor the operating hours for each of the engine powering the horizontal grinder.

Compliance Methods for the Above (Description and Citation):

A. The horizontal grinder and engines were properly operated and maintained. Visible emissions were not noted.

B. The fuel used in the horizontal grinder is certified by the supplier to meet the sulfur content requirements. The County road division maintains the certification records

C. The horizontal grinder engine did not operate more than 1,500 hours during the year. Operating hours for the horizontal grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.4 –

This condition outlines the record keeping requirements for the diesel-powered horizontal grinder which are as follows:

All records must be maintained for a period of five years.

A. For control of visible emissions, this condition specifies the records of preventative maintenance be retained onsite for at least five years and made available to the department on request.

B. For control of sulfur oxides, this condition requires that the Permittee retain annual fuel supplier certifications, stating that the fuel oil is in compliance with the regulation, for a period of at least five years.

C. To demonstrate compliance with operational limits, this condition requires that the Permittee: (a) maintain a record of operating hours for the engine that drives the horizontal grinder; (b) report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification.

Compliance Methods for the Above (Description and Citation):

Applicable records for the horizontal grinder from the last five years are available onsite.

A. Records of preventative maintenance from the last five years are available onsite.

B. The County road division maintains the fuel certification records and are available to the Department upon request.

C. The horizontal grinder operating hours are recorded and are available onsite. The amount of fuel oil combusted and operating hours for the horizontal grinder are provided in the Emissions Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s):

EU-04 – Diesel Powered Horizontal Grinder

Permit Term (Describe requirements and cross-reference)

Table IV-4, Condition 4.5 –

This condition specifies reporting requirements for the diesel-powered horizontal grinder which are as follows:

A. For control of visible emissions, the Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”.

B. For control of sulfur oxides, the Permittee shall report annual fuel supplier certification to the Department upon request.

C. To demonstrate compliance with operational limits, the Permittee shall report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification.

Compliance Methods for the Above (Description and Citation):

A. No visible emissions were noted during the reporting period.

B. The County road division maintains the fuel certification records and are available to the Department upon request.

C. The operating hours and fuel combusted are provided in the Annual Emission Certification Report.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit:

Insignificant Activities - 175 Hp, 6.8 liter diesel powered John Deere Engine

Permit Term (Describe requirements and cross-reference)

The engine is subject to the following:

For control of visible emissions, the Permittee may not cause or permit the discharge of emissions from any engine during idle mode greater than 10 percent opacity or during operating mode greater than 40 percent opacity, except under the specified conditions.

Compliance Methods for the Above (Description and Citation):

No visible emissions were noted during the reporting period.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit:

Insignificant Activities - 175 Hp, 6.8 liter diesel powered John Deere Engine

Permit Term (Describe requirements and cross-reference)

This condition outlines the applicable standard/limits for engine emissions

Compliance Methods for the Above (Description and Citation):

The engine was designed by the manufacturer, who is responsible for meeting applicable emissions criteria given proper operation and maintenance. The engine was operated and maintained in accordance with manufacturer recommendations during the reporting period.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit:

Insignificant Activities - 175 Hp, 6.8 liter diesel powered John Deere Engine

Permit Term (Describe requirements and cross-reference)

The applicable operational requirements that apply to the engine are as follows:

1. The Permittee must operate and maintain the engines in a manner that achieves the emission standards over the entire life of the engines.

2. The Permittee must meet the non-road diesel fuel sulfur requirements as follows: (a) maximum sulfur content of 15 parts per million (ppm) and (b) minimum cetane index of 40; or (c) maximum aromatic content of 35 volume percent.

3. The Permittee must operate and maintain the engines and control devices according to the manufacturer's emission related written instruction.

4. The Permittee may change only those emission related settings that are permitted by the manufacturer.

5. The Permittee may not operate the engine for any purpose other than emergency operation, maintenance and testing, and emergency demand response as described in this subpart.

Compliance Methods for the Above (Description and Citation):

1. The engine was operated and maintained in accordance with the manufacturer recommendations.

2. The fuel used in the engine is certified by the supplier to meet the sulfur, cetane, and aromatic content requirements. The County road division maintains the certification records.

3. The engine was operated and maintained in accordance with the manufacturer's written instructions.

4. Only permitted emission related settings were changed.

5. The engine was not operated for any purposes other than those permitted.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit:

Insignificant Activities - 175 Hp, 6.8 liter diesel powered John Deere Engine

Permit Term (Describe requirements and cross-reference)

The applicable record keeping and reporting requirements that apply to the engine are as follows:

The Permittee shall maintain for at least five years, and shall make available to the Department upon request, records of the following information: (a) installation date of the generator; (b) an operating log listing the dates, hours of operation, and reason for operation; (c) the sulfur content of the fuel used; (d) the amount of fuel purchased annually; (e) for each fuel delivery obtained, a fuel supplier certification indicating the name of the oil supplier, date of delivery, amount of fuel delivered, and compliance with the specifications of 40 CFR 80.510; (f) certification of compliance or manufacturer engine test data required by 40 CFR 60.4211; and (g) other relevant information as required by the Department.

Compliance Methods for the Above (Description and Citation):

Applicable records for the engine from the last five years are available onsite.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit:

Insignificant Activities - 100 hp diesel powered Wildcat Trommel Screener Deere Engine

Permit Term (Describe requirements and cross-reference)

The engine is subject to the following:

For control of visible emissions, the Permittee may not cause or permit the discharge of emissions from any engine during idle mode greater than 10 percent opacity or during operating mode greater than 40 percent opacity, except under the specified conditions.

Compliance Methods for the Above (Description and Citation):

No visible emissions were noted during the reporting period.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a "possible exception to compliance." Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also, specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: **Not Applicable**

Emission Units (unit IDs):

Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____

Date Written Report Submitted ____/____/________

Permit Term for Which There was a Deviation: **Not Applicable**

Emission Units (unit IDs):

Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____

Date Written Report Submitted ____/____/________

Permit Term for Which There was a Deviation: **Not Applicable**

Emission Units (unit IDs):

Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____

Date Written Report Submitted ____/____/________

Permit Term for Which There was a Deviation: **Not Applicable**

Emission Units (unit IDs):

Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____

Date Written Report Submitted ____/____/________

INSTRUCTIONS FOR A-COMP
ANNUAL COMPLIANCE CERTIFICATION

Information Collection Burden Estimates

The public reporting and recordkeeping burden for this collection of information is estimated to average 247 hours per respondent per year. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

DETAILED INSTRUCTIONS

Submit this form along with a certification of truth, accuracy and completeness by a responsible official on an annual basis.

Section A (General Information)

Name and address should be consistent with information provided previously. The contact person should be a person familiar with the day-to-day operation of the facility, such as a plant site manager or other individual, who should be available to be contacted by the permitting authority. If there is more than one contact person, list the others on an attachment.

The reporting period must be at least every 12 months, but your permit may require this more frequently.

Section B (Compliance Status)

Description of Permit Term: Include each permit terms that imposes a requirement or action (emission limitations, standards, monitoring, recordkeeping, reporting, and other requirements on one or more emission units or on the facility. You will likely have to complete this section numerous times to include all requirements in the permit.

The emissions unit ID(s) should be those defined in the permit or in section I of form GIS. If the requirements, including compliance methods, apply in the same way to multiple emission units, you may list multiple units for a particular requirement. Emission units and requirements may be grouped if they apply the same way at all units in the group, the same compliance methods apply to all, and all units have the same compliance status.

Citations to the requirements should unambiguously identify the permit term to the lowest level.

Compliance Methods: List all compliance methods (monitoring, recordkeeping and reporting) you used to determine compliance with the permit term described above. Also, describe and cross-reference these compliance methods.

To describe monitoring, indicate the monitoring device, what is being monitored, averaging time, frequency, and cross-reference the permit term. To describe recordkeeping, describe the records kept, collection frequency, and cross-reference the permit term. Please indicate if monitoring data results or compliance records are kept on-site rather than reported. To describe reporting requirements, describe what is reported, when it is reported, and cross-reference the permit term.

The citation or cross-reference here must unambiguously identify the requirement to the lowest level.

Compliance Status: For each permit requirement and its associated compliance methods, indicate whether there was intermittent or continuous compliance (check one) during the reporting period. You should consider all available information or knowledge that you have when evaluating this, including compliance methods required by the permit and "credible evidence" (e.g., non-reference test methods and information "readily available" to you). You are always free to include written explanations and other information to clarify your conclusion regarding compliance status.

You must include permit terms that were not effective or not applicable (e.g., future-effective requirements, compliance options, and alternative scenarios). You may certify to continuous compliance for these if there is no evidence of noncompliance.

Absent evidence to the contrary, you may certify continuous compliance based on the data provided by the compliance methods, provided you did not fail to perform them and there were no unexcused deviations. Any failure to meet any permit term for any period of time indicates intermittent compliance. You may also indicate "undetermined compliance," if you include the reason.

Section C (Deviations From Permit Terms and Conditions)

Summarize all deviations from permit terms that occurred since the last compliance certification. They may have been reported previously in-writing or they may be reported concurrently with this certification. Also include any deviations but have not yet been reported in writing.

Copy this page as many times as necessary to include all deviations that occurred during the reporting period for this compliance certification.

Deviations occur when any permit term is not met, including emission limitations, standards, monitoring, recordkeeping, reporting and other requirements. For a more detailed explanation of the term "deviation." See the instructions for Form ***SIXMON***. A deviation is not necessarily a violation. Violations are determined by EPA (or its delegate Agency).

You may cross-reference deviations previously reported (e.g., in 6-month monitoring reports).

You must indicate whether each deviation is a "possible exception to compliance." This is a deviation that occurs when compliance is required. A deviation that is not a "possible exception to compliance" is one that occurs when compliance is not required or it is excused by another permit term. If you indicate that a deviation is not a possible exception to compliance, briefly explain and cross-reference the permit term that allows or excuses it. In addition, deviations for which the permit provides an affirmative defense (e.g., emergencies) must be identified as "possible exception to compliance" because only the permitting authority may determine if the affirmative defense applies.

If the cross-reference a deviation report that does not contain all the information requested here, you must supplement it accordingly.

You may list multiple emission units if they all had the same deviation during the same time periods. In addition, for deviations that impose requirements to the permitted facility as a whole or to all units at your facility, you may enter facility-wide in the emissions unit column.

You may indicate continuous periods of deviation that span multiple days in a single entry. Use the 24-hour clock (equivalent to military time) for reporting these times (e.g., the day starts and ends at midnight, 12 a.m., or 00:00 in military time.

Specify the date when the written deviation report was submitted to the permitting authority. Leave the date field blank if you did not submit a written deviation report during the reporting period covered by the

six-month monitoring report (whether required to do so or not). It is a deviation to fail to submit a required deviation report.

Form CTAC (Certification of Truth, Accuracy, and Completeness by Responsible Official)

You must complete form **CTAC** and attach it to this annual compliance certification.

CERTIFICATION OF PLANT-WIDE CONDITIONS
(SECTION III OF PART 70 OPERATING PERMIT)

Indicate compliance with the following requirements of Section III of your Part 70 Operating Permit in the space provided below:

1. Particulate Matter from Construction and Demolition
   The Newland Park Municipal Landfill has remained in continuous compliance with this condition in that no buildings, appurtenances, or roads were used, constructed, altered, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. Open Burning
   The Newland Park Municipal Landfill has remained in continuous compliance with this condition in that no open burning occurred at the Site during the reporting period.

3. Air Pollution Episode (N/A)
   Not applicable.

4. Report of Excess Emissions and Deviations
   (All deviations from permit requirements should be clearly identified in quarterly monitoring reports.)
   The Newland Park Municipal Landfill remained in continuous compliance with this condition in 2022. No excess emissions or permit deviations were noted during the reporting period.

5. Accidental Release Provisions (if applicable)
   Not applicable.

6. General Testing Requirements
   Not applicable, the department did not require additional testing to demonstrate compliance with the Permit.

7. Emissions Test Methods
   The Newland Park Municipal Landfill has remained in continuous compliance with this condition through completion of testing required in the Permit by means of approved test methods.

8. Emission Certification Report
   The Newland Park Municipal Landfill has remained in continuous compliance with this condition. The Emissions Certification Report, including all calculations and summaries of emissions, for the reporting period has been prepared, signed by the Responsible Official, and submitted to MDE. Newland Park Municipal Landfill maintains records necessary to support the emission certification.

9. Compliance Certification Report
   The Newland Park Municipal Landfill has remained in continuous compliance with this

condition. This compliance report for reporting period was submitted to MDE and EPA by April 1 of the reporting years and serves as documentation of compliance.

10. Certification by Responsible Official
    The Newland Park Landfill has remained in continuous compliance with this condition.

11. Sampling and Emissions Testing Record Keeping
    The Newland Park Municipal Landfill has remained in continuous compliance with this condition and records of monitoring data and other support information specified in the permit are available onsite.

12. General Record Keeping
    The Newland Park Municipal Landfill has remained in continuous compliance with this condition. Applicable records for the last five years are available onsite.

13. General Conformity (N/A except for federal facilities)
    Not applicable: Not a federal facility.

14. Asbestos Provisions (if applicable)
    Not applicable.

15. Ozone Depleting Regulations (if applicable)
    The Newland Park Municipal Landfill has remained in continuous compliance with this condition through the maintenance of records related to capture and recycling of ozone depleting chemicals from household appliances received at the Site.

16. Acid Rain Permit (if applicable)
    Not applicable.