Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

Mr. Jeffrey T. Schoenberger, Administrator
Harford County Department of Public Works
3135 Scarboro Road
Street, MD 21154

AUG 0 1 2023

Dear Mr. Schoenberger:

Re: Renewal Part 70/ Title V Operating Permit #24-025-0360

Enclosed, please find the Renewal Part 70/Title V Operating Permit and Fact Sheet for the Harford Waste Disposal Center. The Permit will expire on February 28, 2028.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

Please note the following revised condition in the Permit under Section II, General Conditions, Number 5, Permit Renewal:

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

If you have any questions, please feel free to contact Mr. Mario Cora, Chief of the Combustion and Metallurgical Division at mario.cora@maryland.gov or at 410-537-3230.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosures

cc: EPA Region III (w/encl)

KEEP PERMIT AT SITE

CONTROL NO. B - 07468

Wes Moore
Governor

State of Maryland

Serena McIlwain
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

AUG 0 1 2023

PERMIT NO. 24-025-0360

DATE ISSUED

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE February 28, 2028

LEGAL OWNER & ADDRESS

Harford Co. Government Dept. of Public Works
3135 Scarboro Road
Street, MD 21154
Attn: Mr. Jeffrey T. Schoenberger Administrator

SITE

Harford Waste Disposal Center
3241 Scarboro Road
Street, MD 21154
Harford County
AI # 36583

SOURCE DESCRIPTION

Municipal Solid Waste Landfill.

This source is subject to the conditions described on the attached pages.

Program Manager

Director, Air and Radiation Administration

HARFORD WASTE DISPOSAL CENTER
3241 SCARBORO ROAD
STREET, MD 21154
PART 70 OPERATING PERMIT NO. 24-025-0360

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

The Harford Waste Disposal Center (HWDC) is a municipal solid waste (MSW) landfill located at 3241 Scarboro Road, Street, Maryland, serving Harford County. The facility is owned by the Harford County Government, Department of Public Works (HCG-DPW) and operated by the Maryland Environmental Service (MES). The landfill is located approximately 4.5 miles west of Street, Maryland on Scarboro Road. It was originally constructed, opened in 1957, as the Scarboro Landfill.

The MSW landfill consists of HWDC Landfill comprising twelve waste cells, Cells A through J, Cells N1 and N2, and the Scarboro Landfill. The Scarboro Landfill was closed in 1986. The HWDC Landfill partially overlies the former Scarboro Landfill. It is lined, with a portion of the liner partially caps the Scarboro Landfill. Cells A-J were closed in 2015 and capped in 2016. The cap for Cells A-J extends over the entirety of the Scarboro Landfill.

The HWDC landfill has a total design capacity of 4.2 million cubic yards, which exceeds the New Source Performance Standards (NSPS) threshold of 2.5 million cubic meters (3.2 million cubic yards). The HWDC is subject to the 40 CFR 62, Subpart OOO and COMAR 26.11.03.02 requirements, and therefore is required to apply for a Title V (Part 70) operating permit.

The installation and operation of a gas collection and control system (GCCS) is not required at the site under NSPS requirements, because the current LFG annual non-methane organic compounds (NMOC) emission rate is less than the designated threshold of 34 megagrams per year (Mg/yr). However, the Permittee installed a LFGCS that routes collected LFG to a 300-standard cubic feet per minute (scfm) enclosed flare system where it is destroyed at a 98% efficiency.

The facility includes an MSW landfill, a public drop-off center for municipal solid waste, recyclables and tires, maintenance buildings, and an office building/scale house. Waste materials other than MSW accepted at the landfill are construction and demolition (C&D) debris. By December 31, 2022, the landfill has approximately 1,816,956 tons of waste in-place. The SIC code for the landfill is 4953.

The primary air emissions sources at the HWDC are the landfill, an enclosed flare, two (2) horizontal grinders, and one (1) tub grinder.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
EU-01	9-0417	Active municipal solid waste landfill with a maximum design capacity of 4.2 million cubic yards of MSW.	Originally installed in 1957. Expanded in July 1987.
EU-02	9-0498	A 300-standard cubic feet per minute (scfm) enclosed flare with 98% destruction efficiency.	Permitted February 2, 2015. Installed March 2016.
EU-03	9-0525	A Vermeer horizontal grinder (Model HG6000TX), powered by a 755 Hp diesel engine (Caterpillar, Model C-18).	May 4, 2022.
EU-04	9-0422	A Vermeer horizontal grinder (2006, Model HG6000), powered by a 630 Hp diesel engine (Caterpillar C-16).	September 8, 2011.
EU-05	9-0447	A Vermeer tub grinder, powered by a 540 bhp diesel engine (Caterpillar C-15).	April 9, 2013.
EU-06		Landfill roadways and operations	Originally installed in 1957. Expanded in July 1987.

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 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 b y (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 performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. 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 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. 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, record keeping 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 HWDC is currently subject to the following requirements:

Table IV – 1	
1.0	**Emissions Unit Number(s) – EU-01** MDE Registration No. 9-0417 Active municipal solid waste landfill with a maximum design capacity of 4.2 million cubic yards of MSW.
1.1	**Applicable Standards/Limits:** Harford Waste Disposal Center 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."

Table IV – 1	
1.3	**Monitoring Requirements:** See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.
1.4	**Record Keeping Requirements:** In accordance with **40 CFR 62.16726(a)**, "each owner or operator of an MSW landfill subject to the provisions of § 62.16714(e) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that 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." **[40 CFR 62.16726(a)]**
1.5	**Reporting Requirements:** In accordance with **40CFR 62.16724(b)**, the Permittee shall submit an NMOC emission rate report to the Administrator. "The NMOC emission rate report must be submitted to the Administrator annually following the procedure specified in paragraph (j)(2) of this section, except as provided for in paragraph (c)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate. (1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 62.16718(a) or (b), as applicable. (2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions. (3) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (j)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Administrator. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Administrator. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate

Table IV – 1	
	exceeded the estimated waste acceptance rate. (4) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies 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." **[40 CFR 62.16724(c)]**

The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year or more:

Table IV – 1A	
1A.0	**Emissions Unit Number(s) – EU-01 (continued)** MDE Registration No. 9-0417 Active municipal solid waste landfill with a maximum design capacity of 4.2 million cubic yards of MSW.
1A.1	**Applicable Standards/Limits:** **A. Landfill NSPS 40 CFR §62 Subpart OOO [40CFR 62.16714] – Standards for Municipal Solid Waste Landfill Emissions.** In accordance with 40CFR 62.16714(e)(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)." **[40 CFR § 62.16714(e)(2)]** Collection and control system design plan. "The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements: (1) The collection and control system as described in the design plan must meet the design requirements in § 62.16714(b) and (c).

Table IV – 1A	
	(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of §§ 62.16716 through 62.16726 proposed by the owner or operator. (3) The collection and control system design plan must either conform to specifications for active collection systems in § 62.16728 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 62.16728." **[40 CFR § 62.16724(d)]** "Upon receipt of an initial or revised design plan, the Administrator must review the information submitted under paragraphs (d)(1) through (3) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Administrator does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk." **[40 CFR § 62.16724(d)(6)]** <u>Collection System</u> In accordance with **40CFR 62.16714(b)**, the Permittee shall install "a gas collection and control system meeting the requirements in paragraphs (b)(1) through (3) and (c) of this section at each MSW landfill meeting the conditions in paragraph (a) of this section. (1) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill within 30 months after: (i) The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in § 62.16724(d)(4), or (ii) The first annual report in which the NMOC emission rate equals or exceeds 50 megagrams per year submitted under previously applicable regulations 40 CFR part 60, subpart WWW, 40 CFR part 62, subpart GGG, or a state plan implementing 40 CFR part 60, subpart Cc for a legacy controlled landfill or landfill in the closed landfill subcategory,

Table IV – 1A	
	or (iii) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 SEM shows a surface methane emission concentration of 500 parts per million methane or greater as specified in § 62.16724 (d)(4)(iii). (2) Active. An active collection system must: (i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. (ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade. (iii) Collect gas at a sufficient extraction rate. (iv) Be designed to minimize off-site migration of subsurface gas. (3) Passive. A passive collection system must: (i) Comply with the provisions specified in paragraphs (b)(2)(i), (ii), and (iv) of this section. (ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40." **[40 CFR 62.16714(b)]** <u>Control System</u> In accordance with 40CFR 62.16714(c), "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); or (2) A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts-per-million by volume, dry basis as hexane at 3-percent oxygen or less. The reduction efficiency or concentration in parts-per-million by volume must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 62.16718(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart. (i) If a boiler or process heater is used as the control device, the

Table IV – 1A	
	landfill gas stream must be introduced into the flame zone. (ii) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 62.16722. (iii) Legacy controlled landfills or landfills in the closed landfill subcategory that have already installed control systems and completed initial or subsequent performance tests may comply with this subpart using the initial or most recent performance test conducted to comply with 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing subpart Cc of part 60, is sufficient for compliance with this subpart. (3) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (c)(1) or (2) of this section. (4) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b) or (c) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b) or (c) of this section." **[40CFR 62.16714(c)]** **B. <u>Operational Standard</u>** **[40 CFR § 62.16716] – <u>Surface Methane Monitoring</u>.** "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 owner or operator must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 62.16720(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area

Table IV – 1A	
	of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing." **[40 CFR § 62.16716(d)]**
1A.2	**Testing Requirements:** **The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year or more:** **A. Landfill NSPS 40 CFR §62 Subpart OOO** **[40 CFR § 62.16718(b)] – Testing Requirements.** "After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in § 62.16714(f), using Equation 3: $M_{NMOC} = 1.89 \times 10^{-3} Q_{LFG} C_{NMOC}$ where, M_{NMOC}= mass emission rate of NMOC, megagrams per year Q_{LFG}= flow rate of landfill gas, cubic meters per minute C_{NMOC}= NMOC concentration, parts per million by volume as hexane (1) **Flow rate.** The flow rate of landfill gas, Q_{LFG} must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of EPA Method 2E of appendix A-1 of 40 CFR part 60. (2) **NMOC concentration.** The average NMOC concentration, C_{NMOC} must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in EPA Method 25 or EPA Method 25C of appendix A-7 of 40 CFR part 60. The sample location on the common header pipe must be

Table IV – 1A	
	before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from EPA Method 25 or EPA Method 25C of appendix A-7 of 40 CFR part 60 by six to convert from C_{NMOC} as carbon to C_{NMOC} as hexane. (3) **Gas flow rate method**. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator. (4) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§ 51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures. (5) For the performance test required in § 62.16714(c)(1), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) of this chapter is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C. A minimum of three 30-minute EPA Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. EPA Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4) of this chapter. (6) For the performance test required in § 62.16714(c)(2), EPA Method 25 or 25C (EPA Method 25C may be used at the inlet only) of appendix A-7 of 40 CFR part 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts-per-million by volume outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 62.16724(d)(2). EPA Method 3, 3A, or 3C of appendix A-2 of 40 CFR part 60 must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 parts-per-million NMOC as carbon (8 parts-per-million NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 of appendix A-6 of 40 CFR part 60 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as

Table IV – 1A

carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landfill owner or operator must divide the NMOC concentration as carbon by 6 to convert the C as carbon to C as hexane. Equation 4 must be used to calculate efficiency:

The following equation shall be used to calculate efficiency:

Control Efficiency = ($\mathbf{NMOC_{in}}$ – $\mathbf{NMOC_{out}}$)/($\mathbf{NMOC_{in}}$)

where,

$NMOC_{in}$ = mass of NMOC entering control device

$NMOC_{out}$= mass of NMOC exiting control device

[40 CFR § 62.16718(b)]

B. <u>Operational Standard</u>

[40CFR 62.16718(a)(6)] – <u>Surface Methane Monitoring</u>.
"(6) **Tier 4.** Demonstrate that surface methane emissions are below 500 parts per million. Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 megagrams per year but less than 50 megagrams per year using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are megagrams per year or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.

(i) Measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 62.16720(d).

(ii) The background concentration must be determined by moving the probe inlet upwind and downwind at least 30 meters from the waste mass boundary of the landfill.

(iii) Surface emission monitoring must be performed in accordance with section 8.3.1 of EPA Method 21 of appendix A-7 of 40 CFR part

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	60, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole. (A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. The SEM cannot be conducted if average wind speed exceeds 25 miles per hour. (B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in § 62.16720(d). (iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in § 62.16726(g) and submit a Tier 4 surface emissions report as provided in § 62.16724(d)(4)(iii). (v) If there is any measured concentration of methane of **500** parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to § 62.16724(d) and install and operate a gas collection and control system according to § 62.16714(b) and (c) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2. (vi) If after four consecutive quarterly monitoring periods at a landfill, other than a closed landfill, there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must continue quarterly surface emission monitoring using the methods specified in this section. (vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts

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	per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section. (viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria: (A) The gas collection and control system must have operated for at least 6,570 out of 8,760 hours preceding the Tier 4 SEM demonstration. (B) During the Tier 4 SEM demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible." **[40 CFR § 62.16718(a)(6)]**
1A.3	**Monitoring Requirements:** **The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year or more:** **A. Landfill NSPS 40 CFR §62 Subpart OOO** **[40 CFR § 62.16718(b) thru (f)] – Monitoring of Operations.** "(b) Each owner or operator seeking to comply with § 62.16714(c) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. (2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must: (i) Install, calibrate, and maintain a gas flow rate measuring device that must record 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 position and that the gas flow is not diverted through the bypass line.

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	(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 position and that the gas flow is not diverted through the bypass line. (d) Each owner or operator seeking to demonstrate compliance with § 62.16714(c) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in § 62.16724(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures. (e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 62.16728 or seeking to monitor alternative parameters to those required by § 62.16716 through § 62.16722 must provide information satisfactory to the Administrator as provided in § 62.16724(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures. **B. <u>Operational Standard</u>** **[40 CFR § 62.16722] – <u>Monitoring of Operations</u>.** (f) Each owner or operator seeking to demonstrate compliance with the 500 parts-per-million surface methane operational standard in § 62.16716(d) must monitor surface concentrations of methane according to the procedures provided in § 62.16720(c) and the

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	instrument specifications in § 62.16720(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 parts-per-million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring." **[40 CFR§62.16722]**
1A.4	**Record Keeping Requirements:** **The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams tons per year or more:** **A. Landfill NSPS 40 CFR §62 Subpart OOO** **[40 CFR § 62.16726(b) thru (g)] – Record Keeping Requirements.** "(b) Except as provided in § 62.16724(d)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal. (1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(b): (i) The maximum expected gas generation flow rate as calculated in § 62.16720(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator. (ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 62.16728(a)(1). (2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(c) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts: (i) The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test. (ii) The percent reduction of NMOC determined as specified in § 62.16714(c)(2) achieved by the control device.

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	(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(c)(2)(i) through use of a boiler or process heater of any size: A description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing. (4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(c)(1) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18 of this chapter; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent. (5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(c)(3) through use of a landfill gas treatment system: (i) Bypass records. Records of the flow of landfill gas to, and bypass of, the treatment system. (ii) Site-specific treatment monitoring plan. A site-specific treatment monitoring plan, to include: (A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. (B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas. (C) Documentation of the monitoring methods and ranges, along with justification for their use. (D) Identify who is responsible (by job title) for data collection. (E) Processes and methods used to collect the necessary data. (F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous

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monitoring systems.

(c) Except as provided in § 62.16724(d)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 62.16722 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
(1) The following constitute exceedances that must be recorded and reported under § 62.16724:
(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with § 62.16714(c) was determined.
(ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.

(2) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and 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 § 62.16722

(3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with § 62.16714(c) must keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other state, local, tribal, or Federal regulatory requirements.

(4) Each owner or operator seeking to comply with the provisions of this subpart by use of a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under § 62.16722(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

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	(5) Each owner or operator of a landfill seeking to comply with § 62.16714(e) using an active collection system designed in accordance with § 62.16714(b) must keep records of periods when the collection system or control device is not operating. (d) Except as provided in § 62.16724(d)(2), each owner or operator subject to the provisions of this subpart must 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 label on each collector that matches the labeling on the plot map. (1) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 62.16720(b). (2) Each owner or operator subject to the provisions of this subpart must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 62.16728(a)(3)(ii). (e) Except as provided in § 62.16724(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the items in paragraphs (e)(1) through (5) of this section. Each owner or operator that chooses to comply with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter, as allowed in §§ 62.16716, 62.16720, and 62.16722, must keep the records in paragraph (e)(6) of this section and must keep records according to § 63.1983(e)(1) through (5) of this chapter in lieu of paragraphs (e)(1) through (5) of this section. (1) All collection and control system exceedances of the operational standards in § 62.16716, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. (2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent. (3) For any root cause analysis for which corrective actions are required in § 62.16720(a)(3) or § 62.16720(a)(4), keep a record of the

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	root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed. (4) For any root cause analysis for which corrective actions are required in § 62.16720(a)(3)(ii) or § 62.16720(a)(4)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. (5) For any root cause analysis for which corrective actions are required in § 62.16720(a)(3)(iii) or § 62.16720(a)(4)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency. (6) Each owner or operator that chooses to comply with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter, as allowed in §§ 62.16716, 62.16720, and 62.16722, must keep records of the date upon which the owner or operator started complying with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter. (f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity," must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. (g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts-per-million by conducting SEM under the Tier 4 procedures specified in § 62.16718(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all SEM and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of EPA Method 21 of appendix A-7 of 40 CFR part 60 of this chapter, including all of the following items: (1) Calibration records.

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(i) Date of calibration and initials of operator performing the calibration.
(ii) Calibration gas cylinder identification, certification date, and certified concentration.
(iii) Instrument scale(s) used.
(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.
(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

(2) Digital photographs of the instrument setup. The photographs must be time and date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.

(3) Timestamp of each surface scan reading.
(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.
(ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

(4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.

(5) Monitored methane concentration (parts per million) of each reading.

(6) Background methane concentration (parts per million) after each instrument calibration test.

(7) Adjusted methane concentration using most recent calibration (parts-per-million).

(8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.

(9) Records of the operating hours of the gas collection system for each destruction device." **[40 CFR § 62.16726(b) thru (g)]**

B. <u>Operational Limit</u>

See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.

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1A.5	**Reporting Requirements:** **The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year or more:** **A. Landfill NSPS 40 CFR §62 Subpart OOO [40CFR 62.16724(d), (f), (g), (h), and (i)] – Reporting Requirements.** "(d)(4) Each 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 submit a copy of the collection and control system design plan cover page that contains the engineer's seal to the Administrator within 1 year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows: (i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in § 62.16718(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated NMOC emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated NMOC emission rate based on NMOC sampling and analysis, must be submitted, following the procedures in paragraph (j)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year. (ii) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, as provided in Tier 3 in § 62.16718(a)(4), and the resulting NMOC emission rate is less than 34 megagrams per year, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the NMOC emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of § 62.16718(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (j)(2) of this section, to the Administrator within 1 year of the first calculated NMOC emission rate equaling or exceeding 34 megagrams per year.

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	(iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts-per-million methane, based on the provisions of § 62.16718(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (j)(2) of this section until a surface emissions reading of 500 parts-per-million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts-per-million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Administrator may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to the nearest second), average wind speeds including wind gusts, and reading (in parts-per-million) of any value 500 parts-per-million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report should also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 megagrams per year of NMOC. (A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 SEM that demonstrates that site-specific surface methane emissions are below 500 parts-per-million methane, and following the procedure specified in paragraph (j)(2) of this section. (B) The Tier 4 surface emissions rate report must be submitted within 1 year of the first measured surface exceedance of 500 parts-per-million methane, following the procedure specified in paragraph (j)(2) of this section." **[40 CFR 62.16724(d)(4)]** "The landfill owner or operator must notify the Administrator that the design plan is completed and submit a copy of the plan's signature page. The Administrator has 90 days to decide whether the design plan should be submitted for review. If the Administrator chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the Administrator indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at

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	their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action." **[40 CFR 62.16724(d)(5)]** "(e) **Revised design plan**. The owner or operator who has already been required to submit a design plan under paragraph (d) of this section, or under subpart GGG of this part; 40 CFR part 60, subpart WWW; or a state plan implementing subpart Cc of 40 CFR part 60, must submit a revised design plan to the Administrator for approval as follows: (1) At least 90 days before expanding operations to an area not covered by the previously approved design plan. (2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator according to paragraph (d) of this section. (f) Closure report. Each owner or operator of a controlled landfill must submit a closure report to the Administrator within 30 days of ceasing waste acceptance. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). "(g) **Equipment removal report**. Each owner or operator of a controlled landfill must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment. (1) The equipment removal report must contain the following items: (i) A copy of the closure report submitted in accordance with paragraph (f) of this section; and (ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's Central Data Exchange (CDX), or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the

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	NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports; or (iv) For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports. (2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in § 62.16714(f) have been met. "(h) **Annual report.** The owner or operator of a landfill seeking to comply with § 62.16714(e)(2) using an active collection system designed in accordance with § 62.16714(b) must submit to the Administrator, following the procedures specified in paragraph (j)(2) of this section, an annual report of the recorded information in paragraphs (h)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system except for legacy controlled landfills that have already submitted an initial report under 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing 40 CFR part 60, subpart Cc. Except for legacy controlled landfills, the initial annual report must include the initial performance test report required under 40 CFR 60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. (1) Value and length of time for exceedance of applicable parameters monitored under § 62.16722(a)(1), (b), (c), (d), and (g). (2) Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under § 62.16722. (3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control

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	device or treatment system was not operating. (4) All periods when the collection system was not operating. (5) The location of each exceedance of the 500 parts-per-million methane concentration as provided in § 62.16716(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. (6) The date of installation and the location of each well or collection system expansion added pursuant to § 62.16720(a)(3), (4), (b), and (c)(4). (7) For any corrective action analysis for which corrective actions are required in § 62.16720(a)(3) or (4) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates. (i) **Initial performance test report.** Each owner or operator seeking to comply with § 62.16714(c) must include the following information with the initial performance test report required under 40 CFR 60.8 of this chapter: (1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion; (2) 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; (3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material; (4) 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; (5) The provisions 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 (6) The provisions for the control of off-site migration. **[40CFR 62.16724(d), (f), (g), (h),**

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	and (i)] The Permittee may, upon approval by 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. **[Reference: COMAR 26.11.19.20D(7)]** **B. <u>Operational Limit</u>** See Record Keeping and Reporting Requirements in Section 1.4 and 1.5.

The HWDC will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year) or more:

1B.0	**<u>Emissions Unit Number(s) – EU-1 Cont'd</u>** MDE Registration No. 9-0417 Active municipal solid waste landfill with a maximum design capacity of 4.2 million cubic yards of MSW.
1B.1	**<u>Applicable Standards/Limits</u>:** **Subpart AAAA – National Emission Standard for Hazardous Air Pollutants: Municipal Solid Waste Landfills.** **<u>Applicability</u>** "You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section. (a) You are subject to this subpart if you own or operate an MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section: (1) ... (2) ... (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, you must comply with this subpart by January 16, 2004." **[Reference: 40 CFR §63.1945(b)]**

Standards

"(a) Before September 28, 2021, all landfills described in § 63.1935 must meet the requirements of 40 CFR part 60, subpart WWW, or an approved state or federal plan that implements 40 CFR part 60, subpart Cc, and requires timely control of bioreactors and additional reporting requirements. Landfills must also meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions as specified in Table 1 to subpart AAAA of this part and must demonstrate compliance with the operating conditions by parameter monitoring results that are within the specified ranges. Specifically, landfills must meet the following requirements of this subpart that apply before September 28, 2021, as set out in: §§ 63.1955(a), 63.1955(b), 63.1965(a), 63.1965(c), 63.1975, 63.1981(a), 63.1981(b), and 63.1982, and the definitions of "Controlled landfill" and "Deviation" in §63.1990.

(b) Beginning no later than September 27, 2021, all landfills described in § 63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in § 63.1930(a) at any time before September 27, 2021. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply." **[Reference: 40 CFR §63.1930(a) and (b)]**

(c) At all times, beginning no later than September 27, 2021, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if the requirements of this subpart have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **[Reference: 40 CFR §63.1955(c)]**

	General and Continuing Compliance Requirements "(a) Except as provided in § 63.1981(d)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with § 63.1959(b)(2)(ii)." **[Reference: 40 CFR §63.1960(a)]**
1B.2	**Testing Requirements:** See **General and Continuing Compliance Requirements**
1B.3	**Monitoring Requirements:** The Permittee should follow the appropriate procedures listed in 40 CFR, § 63.1961 (a) thru (h). **[Reference: 40 CFR §63.1961]**
1B.4	**Record Keeping Requirements:** The Permittee "must keep records as specified in this subpart. You must also keep records as specified in the general provisions of 40 CFR part 63 as shown in Table 1 to this subpart. (a) Except as provided in § 63.1981(d)(2), each owner or operator of an MSW landfill subject to the provisions of § 63.1959(b)(2)(ii) and (iii) of this chapter must keep for at least 5 years up-to-date, readily accessible, onsite records of the design capacity report that triggered § 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Offsite records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable." **[Reference: 40 CFR §63.1983]**
1B.5	**Reporting Requirements:** The Permittee must "submit the reports specified in this section and the reports specified in Table 1 to this subpart. If you have previously submitted a design capacity report, amended design capacity report, initial NMOC emission rate report, initial or revised collection and control system design plan, closure report, equipment removal report, or initial performance test under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, then that submission constitutes compliance with the design capacity report in paragraph (a) of this section, the amended design capacity report in paragraph (b) of this section, the initial NMOC emission rate report in paragraph (c) of this section, the initial

	collection and control system design plan in paragraph (d) of this section, the revised design plan in paragraph (e) of this section, the closure report in paragraph (f) of this section, the equipment removal report in paragraph (g) of this section, and the initial performance test report in paragraph (i) of this section. You do not need to resubmit the report(s). However, you must include a statement certifying prior submission of the respective report(s) and the date of submittal in the first semi-annual report required in this section." **[Reference: 40 CFR §63.1981]** The Permittee shall submit reports as specified in § 63.1981 (d) through (n). **[Reference: 40 CFR §63.1981(d) through (n)]**

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2.0	**Emissions Unit Number(s) – EU-02 Enclosed Flare** One (1) 300-standard cubic feet per minute (scfm) enclosed flare with 98% destruction efficiency. **[MDE Reg. No. 9-0498]**
2.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions** **[COMAR 26.11.06.02C(2)]** – "In Areas III and IV, 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 visible to human observers." **Exception – [COMAR 26.11.06.02A(2)]** "The visible emissions standards in C of this regulation do not apply to emissions during start-up and process modification 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. Control of Particulate Matter** **Particulate Matter from Confined Sources** **[COMAR 26.11.06.03B(2)(a)]** – "A person may not cause or permit to be discharged into the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm)." **Particulate Matter from Materials Handling and Construction** **[COMAR 26.11.06.03D]** – "A person may not cause or permit any

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	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." **C. Operational Limit** Air Standards "A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts-per-million by volume, dry basis as hexane at 3-percent oxygen or less. The reduction efficiency or concentration in parts-per-million by volume must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 62.16718(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart." **[Reference: 40 CFR §62.16714(c)(2)]** "The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 62.16722." **[Reference: 40 CFR §62.16714(c)(2)(ii)]**
2.2	**Testing Requirements:** **A. Control of Visible Emissions** See monitoring requirements. **B. Control of Particulate Matter** See monitoring requirements. **C. Operational Limit** "For the performance test required in § 62.16714(c)(2), EPA Method 25 or 25C (EPA Method 25C may be used at the inlet only) of appendix A-7 of 40 CFR part 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts-per-million by volume outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 62.16724(d)(2). EPA Method 3, 3A, or 3C of appendix A-2 of 40 CFR part 60 must be used to determine oxygen for correcting the NMOC

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	concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 parts-per-million NMOC as carbon (8 parts-per-million NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 of appendix A-6 of 40 CFR part 60 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landfill owner or operator must divide the NMOC concentration as carbon by 6 to convert the C as carbon to C as hexane. Equation 4 must be used to calculate efficiency: Control Efficiency = $(NMOC_{in} - NMOC_{out})/(NMOC_{in})$ where, $NMOC_{in}$ = mass of NMOC entering control device $NMOC_{out}$ = mass of NMOC exiting control device" **[Reference: 40 CFR §62.16718(e)]**
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. Control of Particulate Matter** The Permittee shall perform preventive maintenance once per month or as recommended by the equipment manufacturer on the flare. **[Reference: COMAR 26.11.03.06C]** **C. Operational Limit** Air Standards "Each owner or operator seeking to comply with § 62.16714(c) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment: (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts. (2) A device that records flow to the control device and bypass of the

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	control device (if applicable). The owner or operator must: (i) Install, calibrate, and maintain a gas flow rate measuring device that must record 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 position and that the gas flow is not diverted through the bypass line." **[Reference: 40 CFR §62.16722(b)]**
2.4	**Record Keeping Requirements:** **A. Control of Visible Emissions** The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **B. Control of Particulate Matter** The Permittee shall maintain a log of the maintenance performed on the flare and make the logs available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **C. Operational Limit** Air Standards "Except as provided in § 62.16724(d)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal." **[Reference: 40 CFR §62.16726(b)]**
2.5	**Reporting Requirements:** **A. 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. Control of Particulate Matter** Same as Section 2.5.A.

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	C. Operational Limit Same as Section 2.5.A.

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

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3.0	**Emissions Unit Number(s) – EU-03 and EU-04 Horizontal Grinders** EU-03 One (1) Vermeer horizontal grinder (2022, Model HG6000TX), powered by a 755 Hp diesel engine (Caterpillar, Model C-18). **[MDE Reg. No. 9-0525]** EU-04 One (1) Vermeer horizontal grinder (2006, Model HG6000), powered by a 630 Hp diesel engine (Caterpillar C-16). **[MDE Reg. No. 9-0422]**
3.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **[COMAR 26.11.06.02C(2)] – Visible Emissions Standards.** "In Areas III and IV, 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 visible to human observers." **Exceptions. – [COMAR 26.11.06.02A(2)]** "The emission 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: i. The visible emissions are not greater than 40 percent opacity; and ii. The visible emissions do not occur for more than 6 consecutive minutes in any 60 minutes period." **FOR ENGINES ONLY** (2) **[COMAR 26.11. 09.05E] – Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** (1) "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.

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(2) 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.

(3) 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."

FOR ENGINES ONLY

B. Control of Sulfur Oxides Emissions.

[COMAR 26.11. 09.07A(1)] – "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:

(c) Distillate fuel oils, 0.3 percent;"

C. Operational Limit

(a) The Permittee shall only burn diesel fuel in the engines serving both horizontal grinders unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011]**

(b) 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 III or Subpart JJJJ

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	and 40 CFR 63, Subpart ZZZZ, as applicable, for the engine. For the 630 Hp horizontal grinders (c) The engines powering each horizontal grinder shall operate no more than 4,000 hours for any 12-month rolling period. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011]** (d) The Permittee shall properly operate and maintain the engines powering each of the horizontal grinders in a manner to prevent visible emissions. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011]**
3.2	**Testing Requirements:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** See Record Keeping and Reporting Requirements in Section 3.3 and 2.4. **FOR ENGINES ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** See Record Keeping and Reporting Requirements in Section 3.3 and 2.4. **FOR ENGINES ONLY** **B. Control of Sulfur Oxides Emissions.** See Record Keeping and Reporting Requirements in Section 3.3 and 2.4. **C. Operational Limit** See Record Keeping and Reporting Requirements in Section 3.3 and 2.4.
3.3	**Monitoring Requirements:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY**

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	(1) **Visible Emissions Standards**. The Permittee shall properly operate and maintain the horizontal grinders in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINES ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment**. The Permittee shall properly operate and maintain engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINES ONLY** **B. Control of Sulfur Oxides Emissions**. The Permittee shall obtain a certification from 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 each of the engines powering the horizontal grinders.
3.4	**Record Keeping Requirements:** **A. Control of Visible Emissions**. **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards**. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINES ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment**. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINES ONLY** **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

Table IV – 3	
	at least five 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 grinders. (b) The Permittee shall report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification.
3.5	**Reporting Requirements:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** The Permittee shall retain report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emission and Deviations." **FOR ENGINES ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** The Permittee shall retain report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "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)]**

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

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4.0	**Emissions Unit Number(s) – EU-05 Tub Grinder** EU-05 One (1) Vermeer tub grinder, powered by a 540 bhp diesel engine (Caterpillar C-15). **[MDE Reg. No. 9-0447]**
4.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **[COMAR 26.11.06.02C(2)] – Visible Emissions Standards.** "In Areas III and IV, 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 visible to human observers." **Exceptions. – [COMAR 26.11.06.02A(2)]** "The emission 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: i. The visible emissions are not greater than 40 percent opacity; and ii. The visible emissions do not occur for more than 6 consecutive minutes in any 60 minutes period." **FOR ENGINE ONLY** (2) **[COMAR 26.11. 09.05E] – Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** (1) "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. (2) 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. (3) 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

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	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." **FOR ENGINE ONLY** **B. Control of Sulfur Oxides Emissions.** **[COMAR 26.11. 09.07A(1)]** – "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: (c) Distillate fuel oils, 0.3 percent;" **C. Operational Limit** The engine powering the tub grinder shall operate no more than 2,500 hours for any 12-month rolling period, each.
4.2	**Testing Requirements:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** See Record Keeping and Reporting Requirements in Section 2.3 and 2.4. **FOR ENGINE ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** See Record Keeping and Reporting Requirements in Section 2.3 and 2.4. **FOR ENGINE ONLY** **B. Control of Sulfur Oxides Emissions.** See Record Keeping and Reporting Requirements in Section 4.3 and 4.4. **C. Operational Limit** See Record Keeping and Reporting Requirements in Section 4.3 and 4.4.

Table IV – 4	
4.3	**Monitoring Requirements**: **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** The Permittee shall properly operate and maintain the tub grinder in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINE ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** The Permittee shall properly operate and maintain engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINE ONLY** **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 each of the engines powering the tub grinder.
4.4	**Record Keeping Requirements**: **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **FOR ENGINE ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

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	FOR ENGINE ONLY **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 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 tub grinder. (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. 025-0360-9-0447]**
4.5	**Reporting Requirements:** **A. Control of Visible Emissions.** **FOR GRINDING PROCESS ONLY** (1) **Visible Emissions Standards.** The Permittee shall retain report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emission and Deviations." **FOR ENGINE ONLY** (2) **Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment.** The Permittee shall retain report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "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)]**

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

Table IV – 5	
5.0	**Emissions Unit Number(s) – EU-06** Landfill roadways and operations
5.1	**Applicable Standards/Limits:** **Control of Particulate Matter** **[COMAR 26.11.06.03D]** – The Permittee shall not cause or permit any materials 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.
5.2	**Testing Requirements:** **Control of Particulate Matter** See Monitoring and Recordkeeping requirements.
5.3	**Monitoring Requirements:** **Control of Particulate Matter** The Permittee shall prepare and update, as needed a best management practices plan that describes the procedures and methods that will be used to take reasonable precautions. The Permittee shall perform an inspection at minimum once a month to verify that best management practices are being implemented and that the precautions are sufficient to control particulate matter emissions. **[Reference: COMAR 26.11.03.06]**
5.4	**Record Keeping Requirements:** **Control of Particulate Matter** The Permittee shall maintain the plan and records of the dates and results of inspections for at least five (5) years and make them available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

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5.5	**Reporting Requirements:** **Control of Particulate Matter** See Monitoring and Recordkeeping requirements.

TABLE 1 OF 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 part.	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, startup, shutdown and malfunction plan provisions.	
63.6(f)	Compliance with nonopacity 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 a startup, shutdown and malfunction plan are 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 within 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.	

SECTION V 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 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;

The one (1) waste oil furnace, Energy Logic, Model # EL-340H rated at 340,000 Btu/hr; two (2) oil furnace (twin system), Carrier, Model 58BTA195-20 rated at 195,000 Btu/hr; and one (1) Kohler Power System 30, Model # 30R0ZJ81 rated 119,000 Btu/hr are subject to the following requirements:

COMAR 26.11.09.05A(2) – "In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."

Exceptions: COMAR 26.11.09.05A(3) – "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, 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 sixty minute period."

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

(a) No. 10 Storage lubricating oils;
three (3) 137.5-gallon lubricant tanks; seven (7) 65-gallon bulk containers for various lubricants and petroleum products.

(b) No. 11 Storage of Numbers 1,2,4,5, and 6 fuel oil and aviation jet engine fuel;
one (1) 500-gallon No. 2 heating oil AST; two (2) 250-gallon waste oil ASTs (for waste oil heating); one (1) 5,000-

gallon diesel AST; one (1) 1,000-gallon portable diesel AST; one (1) 2,000-gallon diesel AST; one (1) 275-gallon No. 2 heating oil AST; three (3) 275-gallon waste oil ASTs; one (1) 200-gallon diesel AST.

(c) No. 2 Storage of motor vehicle gasoline and having individual tanks capacities of 2,000 gallons (7.6 cubic meters) or less: one (1) 1,000-gallon unleaded gasoline AST, and one (1) 500-gallon waste gasoline AST;

(d) No. 6 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;

(e) No. 15 Storage of butane, propane, or liquefied petroleum, or natural gas;

(f) No. X Storage lubricating oils:

(g) No. X Storage of Numbers 1,2,4,5, and 6 fuel oil and aviation jet engine fuel,

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 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

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.

PART 70 OPERATING PERMIT FACT SHEET
HARFORD WASTE DISPOSAL CENTER
3241 SCARBORO ROAD, STREET, MD 21154
PART 70 OPERATING PERMIT NO. 24-025-0360

BACKGROUND

The Harford Waste Disposal Center (HWDC) is a municipal solid waste (MSW) landfill located at 3241 Scarboro Road, Street, Maryland, serving Harford County. The facility is owned by the Harford County Government, Department of Public Works (HCG-DPW) and operated by the Maryland Environmental Service (MES). The landfill is located approximately 4.5 miles west of Street, Maryland on Scarboro Road. It was originally constructed, opened in 1957, as the Scarboro Landfill.

The MSW landfill consists of HWDC Landfill comprising twelve waste cells, Cells A through J, Cells N1 and N2, and the Scarboro Landfill. The Scarboro Landfill was closed in 1986. The HWDC Landfill partially overlies the former Scarboro Landfill. It is lined, with a portion of the liner partially caps the Scarboro Landfill. Cells A-J were closed in 2015 and capped in 2016. The cap for Cells A-J extends over the entirety of the Scarboro Landfill.

The HWDC landfill has a total design capacity of 4.2 million cubic yards, which exceeds the New Source Performance Standards (NSPS) threshold of 2.5 million cubic meters (3.2 million cubic yards). The HWDC is subject to the 40 CFR 62, Subpart OOO and COMAR 26.11.03.02 requirements, and therefore is required to apply for a Title V (Part 70) operating permit.

The installation and operation of a gas collection and control system (GCCS) is not required at the site under NSPS requirements, because the current LFG annual non-methane organic compounds (NMOC) emission rate is less than the designated threshold of 34 megagrams per year (Mg/yr). The HWDC conducted Tier II on March 9, 2021 and determined an NMOC concentration of 74 ppmv as hexane. With anticipated waste placement of 7,530 Mg in 2021 and subsequent years, the facility estimated an NMOC generation rate of 2.57 Mg for 2021. It is also estimated that this figure will decrease to 2.16 Mg in 2026. A retest is due by March 2026.

The Permittee installed a LFGCS that routes collected LFG to a 300-standard cubic feet per minute (scfm) enclosed flare system where it is destroyed at a 98% efficiency.

The facility includes an MSW landfill, a public drop-off center for municipal solid waste, recyclables and tires, maintenance buildings, and an office building/scale house. Waste materials other than MSW accepted at the landfill are construction and demolition (C&D) debris. By December 31, 2022, the landfill has approximately 1,816,956 tons of waste in-place. The SIC code for the landfill is 4953.

The primary air emissions sources at the HWDC are the landfill, an enclosed flare, and the two (2) horizontal grinders. The 2006 Vermeer horizontal grinder (Model HG6000), powered by a 630 Hp diesel engine (Caterpillar C-16), and the 2022 Vermeer horizontal grinder (Model HG6000TX), powered by a 755 Hp diesel engine (Caterpillar, Model C18). The facility also maintains a 2012 Vermeer tub grinder, powered by a 540 Hp diesel engine (Caterpillar C-15) installed in 2013. The engines powering the grinders are nonroad engines, 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.

The following table summarizes the actual estimated emissions from the HWDC based on its emission calculations shown in the Title V application:

Table 1: Actual Emissions

Year	NO_X (TPY)	SO_X (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)
2022	4.22	0.09	47.21	6.47	0.34
2021	3.79	0.08	47.39	6.36	0.37
2020	3.97	0.13	51.17	6.58	0.97
2019	3.82	0.11	41.53	6.58	1.08
2018	4.18	0.13	53.96	6.67	1.14
2017	4.18	0.13	53.96	6.67	1.14
2016	3.53	0.13	45.87	6.49	1.03

Table 2: Summary of projected NMOC generation rates*

Year	NMOC (Mg/yr)
2022	1.27
2021	1.31
2020	1.34
2019	1.38
2018	1.42

*NMOC emissions are reported in the Title V application using default values in the LandGEM model.

Harford County is located in Area III, which is classified as an ozone nonattainment area. The major source thresholds for triggering Title V permitting for this area under Part 70 rules are the potential to emit of 25 tons per year for volatile organic compounds (VOCs) and nitrogen oxides (NO_x), 100 tons per year for any other criteria pollutants, and 10 tons per year for a single hazardous air pollutant (HAP) or 25 tons per year for total HAPs.

A NSPS MSW Landfill is automatically subject to the Part 70 operating permit requirements if it has a design capacity of at least 2.5 million megagrams, regardless of whether it is a major stationary source under the Part 70 regulations. The Harford Waste Disposal Center has a design capacity which exceeds the 2.5 million megagrams threshold and is therefore subject to the Title V permitting requirements. If Tier 2 analysis later demonstrates that NMOC emission rates will be greater than the 34 Mg/yr threshold for the next 5 years, then HWDC will be required to install collection and control systems at the landfill.

The HWDC prepared a Part 70 (Title V) permit renewal application, and it was received by the Department January 25, 2021. An administrative completeness review was conducted, and the application was deemed to be administratively complete. A completeness determination letter was sent to Harford County Government on February 4, 2021 granting Harford Waste Disposal Center an application shield.

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 Harford Waste Disposal Center 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 HWDC must comply with the MACT requirements when facility emissions exceed 50 Mg/year (currently they do not exceed this threshold).

CAM Analysis

Harford Waste Disposal Center 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. Compliance Assurance Monitoring (CAM) applies to any emission unit at a Title V source that meets the following criteria:

- The emission unit is subject to a federally enforceable emission limit or standard for a regulated pollutant;

- The emission unit uses a control device to achieve compliance with any such emission limitation;

- The emission unit has the potential to emit pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source and must not otherwise be exempt from CAM.

Harford Waste Disposal Center is not a major source of air pollutants, but it has a design capacity greater than the 2.75 million tons threshold, making it subject to the Title V permitting requirements. However, the Permittee installed an LFGCS that routes collected LFG to a 300-standard cubic feet per minute (scfm) enclosed flare system where it is destroyed at a 98% efficiency. The landfill itself is not subject to limitations on the emissions of particulate matter, sulfur oxides, nitrogen oxides, or VOCs. In addition, potential uncontrolled emission levels are well below the major threshold.

The HWDC maintains at the premises an enclosed flare, one (1) tub grinder, and the two (2) horizontal grinders. These emission units are subject to limitations on the emissions of particulate, sulfur oxides, nitrogen oxides, and/or VOC; however, there are no control devices employed to control particulate matter, sulfur oxides, nitrogen oxides, or VOC. CAM requirements, therefore, are not applicable to these units.

GREENHOUSE GAS (GHG) EMISSION STATEMENT

Harford Waste Disposal Center 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 HWDC. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. GHGs were based on emission estimates using the site-specific data from the Tier 2 test that was conducted on March 2021, and 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 emissions from HWDC based on emission estimates using the LandGEM model and information submitted in the Part 70 Permit Application:

Table 3: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2020 tpy CO2e	2021 tpy CO2e	2022 tpy CO2e
Carbon dioxide, CO_2	1	7,742	6,570	6,633
Methane, CH_4	25	1,324	1,259	1,134
Total GHG, CO_2eq		**8,066**	**7,829**	**7,777**

Note: the N2O, HFCs, PFCs, and SF6 emissions from fugitive LFG are not quantified due to the absence of AP-42 emission factors.

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 includes 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 Harford Waste Disposal Center has identified the following emission units as being subject to the Title V permitting requirements and having applicable requirements:

Table 4: Emission Unit Identification

MDE Registration Number	Emissions Unit Number	Emissions Unit Description	Date of Registration
EU-01	9-0417	Active municipal solid waste landfill with a maximum design capacity of 4.2 million cubic yards of MSW.	Originally installed in 1957. Expanded in July 1987.
EU-02	9-0498	A 300-standard cubic feet per minute (scfm) enclosed flare with 98% destruction efficiency.	Permitted February 2, 2015. Installed

MDE Registration Number	Emissions Unit Number	Emissions Unit Description	Date of Registration
			March 2016.
EU-03	9-0525	A Vermeer horizontal grinder (Model HG6000TX), powered by a 755 Hp diesel engine (Caterpillar, Model C-18).	May 4, 2022.
EU-04	9-0422	A Vermeer horizontal grinder (2006, Model HG6000), powered by a 630 Hp diesel engine (Caterpillar C-16).	September 8, 2011.
EU-05	9-0447	A Vermeer tub grinder, powered by a 540 bhp diesel engine (Caterpillar C-15).	April 9, 2013.
EU-06		Landfill roadways and operations.	Installed in 1957. Expanded in July 1987.

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. Section VI identifies 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-01 Municipal Solid Waste placement
MDE Registration No. 9-0417

Applicable Standards and Limits

1. The Harford Waste Disposal Center is currently subject to the following requirements.

The Harford Waste Disposal Center 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)(1)(3)(iii)]**

In accordance with **40 CFR 62.16726(a)**, "each owner or operator of an MSW landfill subject to the provisions of § 62.16714(e) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that 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." **[40 CFR 62.16726(a)]**

In accordance with **40CFR 62.16724(b)**, the Permittee shall submit an NMOC emission rate report to the Administrator.

"The NMOC emission rate report must be submitted to the Administrator annually following the procedure specified in paragraph (j)(2) of this section, except as provided for in paragraph (c)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.
(1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in § 62.16718(a) or (b), as applicable.
(2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
(3) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (j)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Administrator. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Administrator. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.
(4) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies 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." **[40 CFR 62.16724(c)]**

1.A. The Harford Waste Disposal Center will be subject to the following requirements, if calculated NMOC emissions increase to 34 megagrams per year or more.

Applicable Standards/Limits

A. Landfill NSPS 40 CFR §62 Subpart OOO
[40CFR 62.16714] – Standards for Municipal Solid Waste Landfill Emissions.
In accordance with 40CFR 62.16714(e)(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)." **[40 CFR § 62.16714(e)(2)]**

Collection and control system design plan.
"The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:
(1) The collection and control system as described in the design plan must meet the design requirements in § 62.16714(b) and (c).
(2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of §§ 62.16716 through 62.16726 proposed by the owner or operator.
(3) The collection and control system design plan must either conform to specifications for active collection systems in § 62.16728 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 62.16728." **[40 CFR § 62.16724(d)]**

"Upon receipt of an initial or revised design plan, the Administrator must review the information submitted under paragraphs (d)(1) through (3) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Administrator does not approve or disapprove the design plan, or does not

request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk." **[40 CFR § 62.16724(d)(6)]**

Collection System

In accordance with **40CFR 62.16714(b)**, the Permittee shall install "a gas collection and control system meeting the requirements in paragraphs (b)(1) through (3) and (c) of this section at each MSW landfill meeting the conditions in paragraph (a) of this section.

(1) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill within 30 months after: (i) The first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in § 62.16724(d)(4), or (ii) The first annual report in which the NMOC emission rate equals or exceeds 50 megagrams per year submitted under previously applicable regulations 40 CFR part 60, subpart WWW, 40 CFR part 62, subpart GGG, or a state plan implementing 40 CFR part 60, subpart Cc for a legacy controlled landfill or landfill in the closed landfill subcategory, or (iii) The most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 SEM shows a surface methane emission concentration of 500 parts per million methane or greater as specified in § 62.16724 (d)(4)(iii).

(2) Active. An active collection system must: (i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment. (ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade. (iii) Collect gas at a sufficient extraction rate. (iv) Be designed to minimize off-site migration of subsurface gas. (3) Passive. A passive collection system must: (i) Comply with the provisions specified in paragraphs (b)(2)(i), (ii), and (iv) of this section. (ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40." **[40 CFR 62.16714(b)]**

Control System

In accordance with 40CFR 62.16714(c), "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); or

(2) A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts-per-million by volume, dry basis as hexane at 3-percent oxygen or less. The reduction efficiency or concentration in parts-per-million by volume must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in § 62.16718(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.
(i) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.
(ii) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in § 62.16722.
(iii) Legacy controlled landfills or landfills in the closed landfill subcategory that have already installed control systems and completed initial or subsequent performance tests may comply with this subpart using the initial or most recent performance test conducted to comply with 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing subpart Cc of part 60, is sufficient for compliance with this subpart.

(3) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (c)(1) or (2) of this section.

(4) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b) or (c) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b) or (c) of this section." **[40CFR 62.16714(c)]**

Compliance Demonstration

As part of the testing requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16718(b). "After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in § 62.16714(f), using Equation 3: $\mathbf{M}_{NMOC} = 1.89 \times 10^{-3} \mathbf{Q}_{LFG} \mathbf{C}_{NMOC}$."

As part of the monitoring requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16718(b) thru (f). The procedures outlined in 40 CFR § 62.16718(b)(1) and (2) should be followed if the Permittee operates an enclosed combustor. On the other hand, if the Permittee operates an open flare (non-enclosed), it should follow the procedures outlined in 40 CFR § 62.16718(c)(1) & (2). As part of the record-keeping requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16726(b) thru (g). As part of the reporting requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16724(d), (f), (g), (h), and (i). The Permittee may, upon approval by 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. **[Reference: COMAR 26.11.19.20D(7)]**

B. Operational Standard

[40 CFR § 62.16716] – Surface Methane Monitoring.

"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 owner or operator must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 62.16720(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing." **[40 CFR § 62.16716(d)]**

Compliance Demonstration
As part of the testing requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16718(a)(6). "Surface emission monitoring must be conducted on a quarterly basis using the following procedures. Tier 4 is allowed only if the landfill owner or operator can demonstrate that NMOC emissions are greater than or equal to 34 megagrams per year but less than 50 megagrams per year using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are megagrams per year or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section." As part of the monitoring requirements, the Permittee shall follow the procedures outlined in 40 CFR 62 Subpart OOO, Section 62.16722. "(f) Each owner or operator seeking to demonstrate compliance with the 500 parts-per-million surface methane operational standard in § 62.16716(d) must monitor surface concentrations of methane according to the procedures provided in § 62.16720(c) and the instrument specifications in § 62.16720(d)."

1.B. Maximum Achievable Control Technology (MACT)

The Harford Waste Disposal Center 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) NMOC as calculated in accordance with 40 CFR §60.754, is equal to or greater than 55 tons/yr:

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 meet the criteria in paragraph (a) or (b) of this section. (a) You are subject to this subpart if you own or operate an MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:
(1) ...
(2) ...
(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, you must comply with this subpart by January 16, 2004." **[Reference: 40 CFR §63.1945(b)]**

Standards

"(a) Before September 28, 2021, all landfills described in § 63.1935 must meet the requirements of 40 CFR part 60, subpart WWW, or an approved state or federal plan that implements 40 CFR part 60, subpart Cc, and requires timely control of bioreactors and additional reporting requirements. Landfills must also meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions as specified in Table 1 to subpart AAAA of this part and must demonstrate compliance with the operating conditions by parameter monitoring results that are within the specified ranges. Specifically, landfills must meet the following requirements of this subpart that apply before September 28, 2021, as set out in: §§ 63.1955(a), 63.1955(b), 63.1965(a), 63.1965(c), 63.1975, 63.1981(a), 63.1981(b), and 63.1982, and the definitions of "Controlled landfill" and "Deviation" in §63.1990.

(b) Beginning no later than September 27, 2021, all landfills described in § 63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in § 63.1930(a) at any time before September 27, 2021. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply." **[Reference: 40 CFR §63.1930(a) and (b)]**

"(a) 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
"(a) Except as provided in § 63.1981(d)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with § 63.1959(b)(2)(ii)." **[Reference: 40 CFR §63.1960(a)]**

Compliance Demonstration
As part of the monitoring requirements, the Permittee should follow the appropriate procedures listed in 40 CFR, § 63.1961 (a) thru (h). **[Reference: 40 CFR §63.1961]** The Permittee "must keep records as specified in this subpart. You must also keep records as specified in the general provisions of 40 CFR part 63 as shown in Table 1 to this subpart. (a) Except as provided in § 63.1981(d)(2), each owner or operator of an MSW landfill subject to the provisions of § 63.1959(b)(2)(ii) and (iii) of this chapter must keep for at least 5 years up-to-date, readily accessible, onsite records of the design capacity report that triggered § 63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Offsite records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable." **[Reference: 40 CFR §63.1983]** The Permittee shall follow the reporting requirements as described in Table 1 in 40 CFR §63.1981. The Permittee shall submit reports as specified in § 63.1981 (d) through (n). **[Reference: 40 CFR §63.1981(d) through (n)]**

Emission Unit: EU-02
A 300-standard cubic feet per minute (scfm) enclosed flare with 98% destruction efficiency. **[Reg. No. 9-0498]**

Applicable Standards and Limits

A. Control of Visible Emissions
(1) Control of Visible Emissions for grinding process
[COMAR 26.11.06.02C(2)] – Visible Emission Standards.
"In Areas III and IV, 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 visible to human observers."
[COMAR 26.11.06.02A(2)] – Exception.
"The visible emissions standards in C of this regulation do not apply to emissions during start-up and process modification 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
The Permittee shall properly operate and maintain the flare in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** 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. Control of Particulate Matter

Particulate Matter from Confined Sources
[COMAR 26.11.06.03B(2)(a)] – "A person may not cause or permit to be discharged into the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm)."

Particulate Matter from Materials Handling and Construction **[COMAR 26.11.06.03D]** – "A person may 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."

Compliance Demonstration
The Permittee shall properly operate and maintain engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** In addition, the Permittee "may not cause or permit to be discharged into the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm)." **[COMAR 26.11.06.03B(2)(a)]** The Permittee "may 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." **[COMAR 26.11.06.03D]** The Permittee shall perform preventive maintenance once per month or as recommended by the equipment manufacturer on the flare. **[Reference: COMAR 26.11.03.06C]** The Permittee shall maintain a log of the maintenance performed on the flare and make the logs available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

C. Operational Limit

Air Standards
"A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent

oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §60.754(d)." **[Reference: 40 CFR §60.752(b)(2)(iii)B]**

"The control device shall be operated with the parameter ranges established during initial or most recent performance test. The operating parameters to be monitored as specified in 60.756." **[Reference: 40 CFR §60.752(b)(2)(iii)B]**

Compliance Demonstration
The Permittee shall follow the testing procedures as stated in 40 CFR §60.754(d). As part of the monitoring requirement, the Permittee must comply with §60.752(b)(2)(iii) using an enclosed combustor shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment." **[Reference: 40 CFR §60.756(b)]** As part of the Record keeping requirements, the Permittee "shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal." **[Reference: 40 CFR §60.758(b)]**

Emission Unit: EU-03 and 04
One (1) Vermeer horizontal grinder (2022, Model HG6000TX), powered by a 755 Hp diesel engine (Caterpillar, Model C-18). **[MDE Reg. No. 9-0525]**

One (1) Vermeer horizontal grinder (2006, Model HG6000), powered by a 630 Hp diesel engine (Caterpillar C-16). **[MDE Reg. No. 9-0922]**

The engines serving the horizontal grinders fall under the definition of "nonroad" internal combustion engine. The U.S. EPA defined a "stationary" internal combustion engine, as an engine that does not meet the definition of a "nonroad" engine. Nonroad engines are not subject to federal NSPS requirements under 40 CFR 60, Subpart IIII or Subpart JJJJ or federal NESAHP requirements under 40 CFR 63, Subpart ZZZZ.

The U.S. EPA defines a "nonroad" internal combustion engine in 40 CFR §1068.30, as an internal combustion engine that meets any of the following criteria:

(i) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).

(ii) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).

(iii) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

Applicable Standards and Limits

A. Control of Visible Emissions

(2) Control of Visible Emissions for grinding process
[COMAR 26.11.06.02C(2)] – Visible Emission Standards.
"In Areas III and IV, 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 visible to human observers."
[COMAR 26.11.06.02A(2)] – Exception.
"The visible emissions standards in C of this regulation do not apply to emissions during start-up and process modification 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

The Permittee shall properly operate and maintain the horizontal grinder in a manner to minimize visible emissions. **[Reference: COMAR 26.11.06.02C(2)]** 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.

FOR ENGINE ONLY

(3) Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment
[COMAR 26.11.09.05E] – Visible Emission Standards.

"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.

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.

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 shall properly operate and maintain the horizontal grinders in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** The Permittee shall properly operate and maintain engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]**

FOR ENGINE ONLY

B. Control of Sulfur Oxides Emissions
[COMAR 26.11.09.07A(1)] – "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:

(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 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

The engine, which powers the horizontal grinder, shall operate no more than 1200 hours for any 12-month rolling period.

a) The Permittee shall only burn diesel fuel in the engines serving both horizontal grinders unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011].**

For the 630 Hp horizontal grinders

b) The engines powering each horizontal grinder shall operate no more than 4,000 hours for any 12-month rolling period. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011].**

c) The Permittee shall properly operate and maintain the engines powering each of the horizontal grinders in a manner to prevent visible emissions. **[Reference: MDE PTC No. 025-0360-9-0525 issued on May 4, 2022, and MDE PTC No. 025-0360-9-0422 issued on September 8, 2011].**

Compliance Demonstration

The Permittee shall properly monitor the operating hours for each of the engines powering the horizontal grinders. The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the operating hours for the engine that drives the horizontal grinders, report the amount of fuel oil combusted and engine operating hours as part of the annual emission certification, and the amount of fuel oil combusted and engine-operating hours as part of the annual emission certification. **[Reference: COMAR 26.11.09.08G(e)]**

Emission Unit: EU-05

One (1) Vermeer tub grinder, powered by a 540 bhp diesel engine (Caterpillar C-15). **[Reg. No. 9-0447]**

The engine serving the tub grinder fall under the definition of "nonroad" internal combustion engine. The U.S. EPA defined a "stationary" internal combustion engine, as an engine that does not meet the definition of a "nonroad" engine. Nonroad engines are not subject to federal NSPS requirements under 40 CFR 60, Subpart IIII or Subpart JJJJ or federal NESAHP requirements under 40 CFR 63, Subpart ZZZZ.

The U.S. EPA defines a "nonroad" internal combustion engine in 40 CFR §1068.30, as an internal combustion engine that meets any of the following criteria:

(i) It is (or will be) used in or on a piece of equipment that is self-propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers).

(ii) It is (or will be) used in or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).

(iii) By itself or in or on a piece of equipment, it is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

Applicable Standards and Limits

A. Control of Visible Emissions

(2) Control of Visible Emissions for grinding process
[COMAR 26.11.06.02C(2)] – Visible Emission Standards.
"In Areas III and IV, 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 visible to human observers."
[COMAR 26.11.06.02A(2)] – Exception.
"The visible emissions standards in C of this regulation do not apply to emissions during start-up and process modification 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

The Permittee shall properly operate and maintain the horizontal grinders in a manner to minimize visible emissions. **[Reference: COMAR 26.11.06.02C(2)]** 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.

FOR ENGINE ONLY

(3) Visible Emissions Limits for Stationary Internal Combustion Engine Powered Equipment
[COMAR 26.11.09.05E] – Visible Emission Standards.

"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.

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.

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 shall properly operate and maintain the horizontal grinders in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** The Permittee shall properly operate and maintain engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]**

FOR ENGINE ONLY

B. Control of Sulfur Oxides Emissions

[COMAR 26.11.09.07A(1)] – "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:

(c) Distillate fuel oils, 0.3 percent;"

Compliance Demonstration
The Permittee shall obtain a certification from 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 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

The engine powering the tub grinder shall operate no more than 2,500 hours for any 12-month rolling period, each.

Compliance Demonstration
As part of the monitoring requirements, the Permittee shall properly monitor the operating hours for each of the engines powering the tub 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 tub grinder. (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. 025-0360-9-0447]** 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)]**

Emission Unit: EU-06
Landfill roadways and operations.

Applicable Standards and Limits

A. Control of Particulate Matter
[COMAR 26.11.06.03D] – The Permittee shall not cause or permit any materials 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

Compliance Demonstration
The Permittee shall prepare and update, as needed a best management practices plan that describes the procedures and methods that will be used to take reasonable precautions. The Permittee shall perform an inspection at minimum once a month to verify that best management practices are being implemented and that the precautions are sufficient to control particulate matter emissions. **[Reference: COMAR 26.11.03.06]** The Permittee shall maintain the plan and records of the dates and results of inspections for at least five (5) years and make them available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** 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.

COMPLIANCE SCHEDULE

The Harford Waste Disposal Center is currently in compliance with all applicable air quality requirements.

TITLE IV - ACID RAIN

The Acid Rain Program does not apply to the Harford Waste Disposal Center.

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 Harford Waste Disposal Center 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 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;

The one (1) waste oil furnace, Energy Logic, Model # EL-340H rated at 340,000 Btu/hr; two (2) oil furnace (twin system),

Carrier, Model 58BTA195-20 rated at 195,000 Btu/hr; and one (1) Kohler Power System 30, Model # 30R0ZJ81 rated 119,000 Btu/hr are subject to the following requirements:

COMAR 26.11.09.05A(2) – "In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."

Exceptions: COMAR 26.11.09.05A(3) – "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, 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 sixty minute period."

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

(a) No. 23 Storage lubricating oils;

(b) No. 8 Storage of Numbers 1,2,4,5, and 6 fuel oil and aviation jet engine fuel;

(c) No. 1 Storage of motor vehicle gasoline and having individual tanks capacities of 2,000 gallons (7.6 cubic meters) or less: one (1) 1,000-gallon unleaded gasoline AST, and one (1) 500-gallon waste gasoline AST;

(d) No. 6 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;

(e) No. 15 Storage of butane, propane, or liquefied petroleum, or natural gas;

(f) No. X Storage lubricating oils:

(g) No. _X_ Storage of Numbers 1,2,4,5, and 6 fuel oil and aviation jet engine fuel,

(3) Potable water treatment equipment, not including air stripping equipment; and

(4) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act.

STATE-ONLY ENFORCEABLE CONDITIONS

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

1. Applicable Regulations:

   (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

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.