



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date:

Effective Date:

Expiration Date:

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

TITLE V Permit No: 35-00014

Federal Tax Id - Plant Code: 23-2637846-1

Owner Information

Name: KEYSTONE SANI LDFL INC
Mailing Address: 249 DUNHAM DR
DUNMORE, PA 18512-2686

Plant Information

Plant: KEYSTONE SANI LDFL INC/DUNMORE
Location: 35 Lackawanna County 35003 Dunmore Borough
SIC Code: 4953 Trans. & Utilities - Refuse Systems

Responsible Official

Name: DOMINICK DENAPLES
Title: SITE MANAGER
Phone: (570) 343 - 5782 Email: dominickd@kslco.com

Permit Contact Person

Name: DOMINICK DENAPLES
Title: SITE MANAGER
Phone: (570) 343 - 5782 Email: dominickd@kslco.com

[Signature] _____

MARK J. WEJKSZNER, NORTHEAST REGION AIR PROGRAM MANAGER



SECTION A. Table of Contents

Section A. Facility/Source Identification

Table of Contents
Site Inventory List

Section B. General Title V Requirements

- #001 Definitions
- #002 Prohibition of Air Pollution
- #003 Property Rights
- #004 Permit Expiration
- #005 Permit Renewal
- #006 Transfer of Ownership or Operational Control
- #007 Inspection and Entry
- #008 Compliance Requirements
- #009 Need to Halt or Reduce Activity Not a Defense
- #010 Duty to Provide Information
- #011 Reopening and Revising the Title V Permit for Cause
- #012 Reopening a Title V Permit for Cause by EPA
- #013 Operating Permit Application Review by the EPA
- #014 Significant Operating Permit Modifications
- #015 Minor Operating Permit Modifications
- #016 Administrative Operating Permit Amendments
- #017 Severability Clause
- #018 Fee Payment
- #019 Authorization for De Minimis Emission Increases
- #020 Reactivation of Sources
- #021 Circumvention
- #022 Submissions
- #023 Sampling, Testing and Monitoring Procedures
- #024 Compliance Certification
- #025 Recordkeeping Requirements
- #026 Reporting Requirements
- #027 Operational Flexibility
- #028 Risk Management
- #029 Approved Economic Incentives and Emission Trading Programs
- #030 Permit Shield
- #031 Reporting
- #032 Report Format

Section C. Site Level Title V Requirements

- C-I: Restrictions
- C-II: Testing Requirements
- C-III: Monitoring Requirements
- C-IV: Recordkeeping Requirements
- C-V: Reporting Requirements
- C-VI: Work Practice Standards
- C-VII: Additional Requirements
- C-VIII: Compliance Certification
- C-IX: Compliance Schedule

Section D. Source Level Title V Requirements

- D-I: Restrictions
- D-II: Testing Requirements
- D-III: Monitoring Requirements
- D-IV: Recordkeeping Requirements
- D-V: Reporting Requirements



SECTION A. Table of Contents

D-VI: Work Practice Standards
D-VII: Additional Requirements

Note: These same sub-sections are repeated for each source!

Section E. Source Group Restrictions

E-I: Restrictions
E-II: Testing Requirements
E-III: Monitoring Requirements
E-IV: Recordkeeping Requirements
E-V: Reporting Requirements
E-VI: Work Practice Standards
E-VII: Additional Requirements

Section F. Alternative Operating Scenario(s)

F-I: Restrictions
F-II: Testing Requirements
F-III: Monitoring Requirements
F-IV: Recordkeeping Requirements
F-V: Reporting Requirements
F-VI: Work Practice Standards
F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous

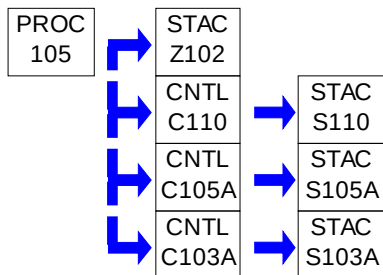
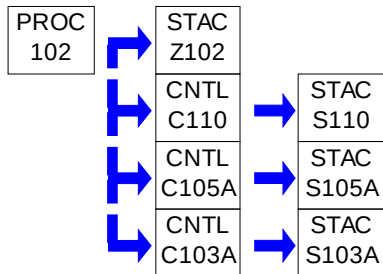
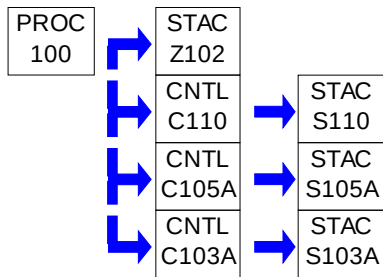
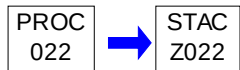
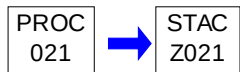
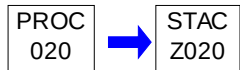
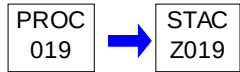
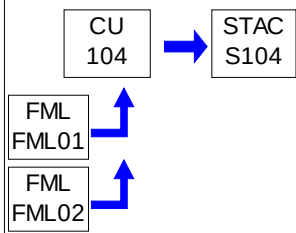
**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
104	LEACHATE PRE-TREATMENT PLANT BOILER	5.845 MMBTU/HR	
011	QUARRY OPERATIONS (ALL SEGMENTS)		
019	STORAGE TANK 3K-GASOLINE		
020	STORAGE TANK 6K-HYDRAULIC OIL		
021	STORAGE TANK 8K-MOTOR OIL		
022	DIESEL STORAGE TANKS (10K AND 12K GAL)		
100	LANDFILL CLOSED (GAS COLLECTION SYSTEM)		
102	LANDFILL PHASE 1 (GAS COLLECTION SYSTEM)	120.000 Tons/HR	MUNICIPAL WASTE
105	LANDFILL PHASE 2 (GAS COLLECTION SYSTEM)		
106	LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A		
ENG1	SIX (6) EMERGENCY ENGINES		
C011	WATER SPRAY DUST SUPPRESSION SYSTEM		
C103A	ENCLOSED FLARE 2 (6000 CFM)		
C105A	ENCLOSED FLARE 3 (6000 CFM)		
C106	FLARE - ENCLOSED PORTABLE (800 CFM)		
C107	FLARE - PORTABLE CANDLE #1 (500 CFM)		
C108	FLARE - PORTABLE CANDLE #2 (500 CFM)		
C109	FLARE - PORTABLE CANDLE #3 (500 CFM)		
C110	FLARE - ENCLOSED (5000 CFM)		
C111	FLARE - ENCLOSED (4000 CFM) PORTABLE		
FML01	DIESEL FUEL		
FML02	NATURAL GAS		
S103A	FLARE 2 STACK		
S104	BOILER STACK		
S105A	FLARE 3 STACK		
S106	STACK - FLARE C106		
S107	STACK - FLARE C107		
S108	STACK - FLARE C108		
S109	STACK - FLARE C109		
S110	STACK - FLARE C110		
S111	STACK - FLARE C111		
SENG1	EMERGENCY ENGINES STACKS		
Z011	FUGITIVE QUARRY EMISSIONS		
Z019	FUGITIVE TANK EMISSIONS		
Z020	FUGITIVE TANK EMISSIONS		
Z021	FUGITIVE TANK EMISSIONS		
Z022	FUGITIVE TANK EMISSIONS		
Z102	FUGITIVE LANDFILL EMISSIONS		

PERMIT MAPS

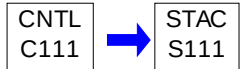
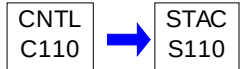
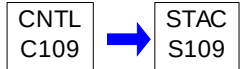
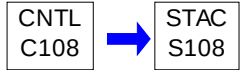
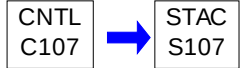
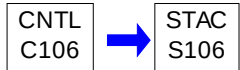
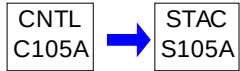
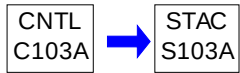
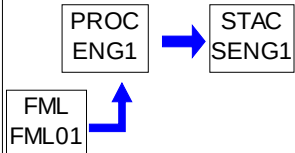
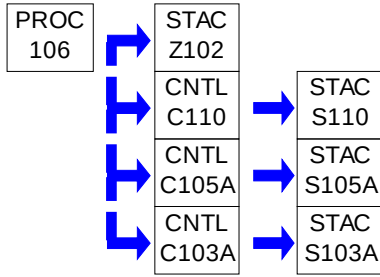


PERMIT MAPS





PERMIT MAPS



**SECTION B. General Title V Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1.

#002 [25 Pa. Code § 121.7]**Prohibition of Air Pollution**

No person may permit air pollution as that term is defined in the Air Pollution Control Act (35 P.S. §§ 4001-4015).

#003 [25 Pa. Code § 127.512(c)(4)]**Property Rights**

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

#004 [25 Pa. Code § 127.446(a) and (c)]**Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

#005 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e), 127.503 & 127.704(b)]**Permit Renewal**

(a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.

(b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.

(c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).

(d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]**Transfer of Ownership or Operational Control**

(a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:

(1) The Department determines that no other change in the permit is necessary;

(2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit

**SECTION B. General Title V Requirements**

responsibility, coverage and liability between the current and the new permittee; and,

(3) A compliance review form has been submitted to the Department and the permit transfer has been approved by the Department.

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

#007 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]**Inspection and Entry**

(a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:

(1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;

(2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;

(3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;

(4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.

(b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.

(c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#008 [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)]**Compliance Requirements**

(a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:

(1) Enforcement action

(2) Permit termination, revocation and reissuance or modification

(3) Denial of a permit renewal application

(b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.

(c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

**SECTION B. General Title V Requirements****#009 [25 Pa. Code § 127.512(c)(2)]****Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

#010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]**Duty to Provide Information**

(a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

(b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

#011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]**Reopening and Revising the Title V Permit for Cause**

(a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.

(b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:

(1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.

(2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.

(3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.

(4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.

(d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#012 [25 Pa. Code § 127.543]**Reopening a Title V Permit for Cause by EPA**

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

**SECTION B. General Title V Requirements****#013 [25 Pa. Code § 127.522(a)]****Operating Permit Application Review by the EPA**

The applicant may be required by the Department to provide a copy of the permit application, including the compliance plan, directly to the Administrator of the EPA. Copies of title V permit applications to EPA, pursuant to 25 PA Code §127.522(a), shall be submitted, if required, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#014 [25 Pa. Code § 127.541]**Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541. Notifications to EPA, pursuant to 25 PA Code §127.522(a), if required, shall be submitted, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#015 [25 Pa. Code §§ 121.1 & 127.462]**Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications). Notifications to EPA, pursuant to 25 PA Code §127.462(c), if required, shall be submitted, to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#016 [25 Pa. Code § 127.450]**Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a). Copies of request for administrative permit amendment to EPA, pursuant to 25 PA Code §127.450(c)(1), if required, shall be submitted to the following EPA e-mail box:

R3_Air_Apps_and_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

#017 [25 Pa. Code § 127.512(b)]**Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**SECTION B. General Title V Requirements****#018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]****Fee Payment**

- (a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees). The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.
- (b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.
- (c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.
- (d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).
- (e) The permittee shall pay an annual operating permit maintenance fee according to the following fee schedule established in 25 Pa. Code § 127.704(d) on or before December 31 of each year for the next calendar year.
- (1) Eight thousand dollars (\$8,000) for calendar years 2021—2025.
 - (2) Ten thousand dollars (\$10,000) for calendar years 2026—2030.
 - (3) Twelve thousand five hundred dollars (\$12,500) for the calendar years beginning with 2031.

#019 [25 Pa. Code §§ 127.14(b) & 127.449]**Authorization for De Minimis Emission Increases**

- (a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:

- (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

- (b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:

- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NO_x from a single source during the term of the permit and 5 tons of NO_x at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of

**SECTION B. General Title V Requirements**

oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM₁₀ from a single source during the term of the permit and 3.0 tons of PM₁₀ at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.

(c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:

(1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.

(2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.

(3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.

(4) Space heaters which heat by direct heat transfer.

(5) Laboratory equipment used exclusively for chemical or physical analysis.

(6) Other sources and classes of sources determined to be of minor significance by the Department.

(d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:

(1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.

(2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.

(3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.

(4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.

(e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).

(f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.

(g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.

**SECTION B. General Title V Requirements**

(h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#020 [25 Pa. Code §§ 127.11a & 127.215]**Reactivation of Sources**

(a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.

(b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#021 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#022 [25 Pa. Code §§ 127.402(d) & 127.513(1)]**Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager
PA Department of Environmental Protection
(At the address given on the permit transmittal letter, or otherwise notified)

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

The Title V compliance certification shall be emailed to EPA at R3_APD_Permits@epa.gov.

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

#023 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]**Sampling, Testing and Monitoring Procedures**

(a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this

**SECTION B. General Title V Requirements**

permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

#024 [25 Pa. Code § 127.513]**Compliance Certification**

(a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:

- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.

(b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3_APD_Permits@epa.gov.

#025 [25 Pa. Code §§ 127.511 & Chapter 135]**Recordkeeping Requirements**

(a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:

- (1) The date, place (as defined in the permit) and time of sampling or measurements.
- (2) The dates the analyses were performed.
- (3) The company or entity that performed the analyses.
- (4) The analytical techniques or methods used.
- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.

(b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.

(c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

**SECTION B. General Title V Requirements****#026 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]****Reporting Requirements**

(a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.

(b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.

(c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.

(d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

#027 [25 Pa. Code § 127.3]**Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)
- (6) Section 127.462 (relating to minor operating permit amendments)
- (7) Subchapter H (relating to general plan approvals and operating permits)

#028 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]**Risk Management**

(a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).

(b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:

- (1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:

**SECTION B. General Title V Requirements**

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
- (2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.
- (d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:
 - (1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,
 - (2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.
- (e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.
- (f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:
 - (1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.
 - (2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Section B, Condition #026 of this permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

#029 [25 Pa. Code § 127.512(e)]**Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

#030 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]**Permit Shield**

(a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:

- (1) The applicable requirements are included and are specifically identified in this permit.
- (2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.

(b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:

- (1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.
- (2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.

**SECTION B. General Title V Requirements**

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.

(4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.

(c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

#031 [25 Pa. Code §135.3]**Reporting**

(a) The permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.

(b) A source owner or operator may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#032 [25 Pa. Code §135.4]**Report Format**

Emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.

**SECTION C. Site Level Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

(a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:

- (1) Construction or demolition of buildings or structures.
- (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
- (4) Clearing of land.
- (5) Stockpiling of materials.
- (6) Open burning operations.
- (7) Blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting.
- (8) N/A.

(9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:

- (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

002 [25 Pa. Code §123.2]**Fugitive particulate matter**

The permittee may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in Site Level Condition #001 (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

003 [25 Pa. Code §123.31]**Limitations**

The permittee may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

004 [25 Pa. Code §123.41]**Limitations**

VISIBLE EMISSIONS:

(a) A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

005 [25 Pa. Code §123.42]**Exceptions**

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (3) When the emission results from sources specified in site level condition #001 (relating to prohibition of certain fugitive emissions).

006 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The VOC emissions from the facility must never equal to or exceed 50 TPY, based on a 12-month rolling sum.

**SECTION C. Site Level Requirements****II. TESTING REQUIREMENTS.****# 007 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

All sampling, testing and analyses performed in compliance with the requirements of any section of this permit shall be done in accordance with SECTION B, General Title V Requirement, Condition #023.

008 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

If requested by the Department, the permittee shall perform a stack test, in accordance with the provisions of the most current publication of the DEP Source Testing Manual and Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, within the time frame specified by the Department.

009 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) All performance tests shall be conducted in accordance with 40 CFR Part 63, Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart. and the Department's Source testing procedures described in the latest Source Testing Manual reference in 25 Pa. Code, Section 139.4(5).

(b) Testing procedures shall be submitted to the Regional Air Quality Program Manager as specified in General Title V Requirement #023.

010 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Within 180 days after initial startup, or on an alternative schedule as approved by the Department, the permittee shall conduct EPA reference method stack testing in accordance with 25 Pa Code Chapter 139 and applicable EPA reference methods to quantify per- and polyfluoroalkyl substances (PFAS), which shall, at a minimum, include all of the target analytes in Table 45-1 of Other Test Method 45 (OTM-45), Revision 0, dated January 13, 2021. The applicant shall submit a protocol to the Department for approval within 60 days of plan approval issuance. [25 Pa. Code §127.12b]

III. MONITORING REQUIREMENTS.**# 011 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

012 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.****FUGITIVE AND VISIBLE EMISSIONS**

The permittee shall conduct weekly inspections of the facility, during daylight hours when the plant is in operation, to detect visible and fugitive emissions. Visible emissions may be measured according to the methods specified in Site Level Condition #011. The permittee shall monitor for the following:

- (a) Visible emissions in excess of the limits stated in this permit.
- (b) The presence of fugitive emissions visible beyond the boundaries of the facility, as stated in Site Level Condition #002.

013 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall forecast, on an annual basis, the landfill gas generation and collection for the following year. If the

**SECTION C. Site Level Requirements**

forecast indicates that the existing flare (s) is not sufficient to incinerate the collected gases, additional approved flare(s) shall be installed and operated within six months of the forecast to ensure that the 100 % of the collected gases are incinerated and/or destructed by other methods approved by the Department.

IV. RECORDKEEPING REQUIREMENTS.**# 014 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.****FUGITIVE AND VISIBLE EMISSIONS**

(a) The permittee shall, at the conclusion of each weekly inspection, record all occurrences of fugitive or visible emissions which deviate from the limitations (Site Level Conditions #002 and #004) in a log book.

(b) The permittee shall record any and all corrective action(s) taken to abate each recorded deviation or prevent future occurrences.

015 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

All records, reports and analyses results generated in compliance with the requirements of any section of this permit shall be maintained in accordance with SECTION B, General Title V Requirement, Condition #025, and shall be made available to the Department upon written or verbal request at a reasonable time.

016 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. These records shall be maintained for a minimum of five (5) years.

017 [25 Pa. Code §127.512]**Operating permit terms and conditions.****Recordkeeping and Reporting Requirements**

A detailed record describing the time, location, type and amount of roadway surface treatment shall be maintained at the landfill site for at least five (5) years. As a minimum, the record shall include the following:

(i) For paved roads and parking lot areas:

- a. Daily log of engine run time and odometer reading for the vacuum sweeper / water truck.
- b. Daily log of time and location of vacuum sweeping / water truck.
- c. Identification, time and location of any maintenance, repair, patching or repaving of roads.
- d. A log explaining the reason any required vacuum sweeping / water truck was not performed.

(ii) For unpaved roads and shoulders of paved roads:

- a. Log of time and location of treated areas.
- b. Daily log of meter reading of spray-bar and/or pump and odometer reading of trucks used to apply dust suppressants and the identification of such dust suppressants.
- c. Daily log of the dilution ratios of the dust suppressants and diluent used if chemical suppressants are used.
- d. Purchase records of the chemical suppressants, if any.

(iii) Records required under this Operating Permit shall be kept for a minimum period of five (5) years and shall be made available to the Department upon its request.

018 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The owner/operator shall keep records of the amount of landfill gas collected and combusted at the facility on a monthly basis to verify compliance with the landfill gas throughput limitation in any 12 consecutive month period.

**SECTION C. Site Level Requirements**

(b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

(c) Records of data, calculations, and total emissions should be kept, as necessary, to ensure compliance with each specific condition so that compliance is easily and continuously verified. The records, calculations, and total emissions shall be computed at least monthly for the previous month and the previous twelve consecutive calendar month period, and shall be updated by the 15th calendar day of each calendar month.

V. REPORTING REQUIREMENTS.**# 019 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.****FUGITIVE AND VISIBLE EMISSIONS**

(a) On a semi-annual basis, the permittee shall compile a report of all logged instances of deviation of the fugitive or visible emission limitations that occurred and the actions taken in response to them. This report shall be submitted to the Department.

(b) If no deviations have been logged during the reported period, this report shall be retained at the facility and be made available to the Department upon request.

020 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The company, within (1) one hour of occurrence, shall notify the Department, at 570-826-2511, of any malfunction, recordkeeping and reporting errors, or other possible non-compliance issues, which result in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulations contained in Article III of the Rules and Regulations of the Department of Environmental Protection. A written report shall be submitted to the Department within five (5) working days following the incident describing the malfunction, recordkeeping, and reporting error or other non-compliance issue and the corrective actions being taken. The Department may take enforcement action for any violations of the applicable standards.

021 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The facility is subject to all applicable requirements of 40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart.

40 CFR 63.13 requires submission of copies of all requests, reports, applications, submittals, and other communications to both EPA and the Department. The copies shall be forwarded to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

and

Air Quality Program Manager
Department of Environmental Protection
2 Public Square
Wilkes-Barre, PA 18701-1915

022 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

**SECTION C. Site Level Requirements**

(a) The permittee shall submit reports to the Department on an annual basis that include the supporting calculations to verify compliance with the NO_x, CO, SO_x, VOCs, and PM emissions limitation for the facility in any 12 consecutive month period.

(b) The annual reports shall be submitted to the Department no later than March 1 (for January 1 through December 31 of the previous year).

023 [25 Pa. Code §127.513]**Compliance certification.**

The reporting period for the certificate of compliance required by SECTION B, General Title V Requirement, Condition #024, shall be for the previous calendar year, and it shall be submitted within 60 days after the specified period but no later than March 1st.

024 [25 Pa. Code §135.21]**Emission statements**

(a) Except as provided in subsection (d), this section applies to stationary sources or facilities:

(1) Located in an area designated by the Clean Air Act as a marginal, moderate, serious, severe or extreme ozone nonattainment area and which emit oxides of nitrogen or VOC.

(2) Not located in an area described in subparagraph (1) and included in the Northeast Ozone Transport Region which emit or have the potential to emit 100 tons or more oxides of nitrogen or 50 tons or more of VOC per year.

(b) The owner or operator of each stationary source emitting oxides of nitrogen or VOC's shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of oxides of nitrogen and VOCs from that source for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.

(c) Annual emission statements are due by March 1 for the preceding calendar year beginning with March 1, 1993, for calendar year 1992 and shall provide data consistent with requirements and guidance developed by the EPA. The guidance document is available from: United States Environmental Protection Agency, 401 M. Street, S.W., Washington, D.C. 20460. The Department may require more frequent submittals if the Department determines that one or more of the following applies:

(1) A more frequent submission is required by the EPA.

(2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the act.

(d) Subsection (a) does not apply to a class or category of stationary sources which emits less than 25 tons per year of VOC's or oxides of nitrogen, if the Department in its submissions to the Administrator of the EPA under section 182(a)(1) or (3)(B)(ii) of the Clean Air Act (42 U.S.C.A. 7511a(a)(1) or (3)(B)(ii)) provides an inventory of emissions from the class or category of sources based on the use of the emission factors established by the Administrator or other methods acceptable to the Administrator. The Department will publish in the Pennsylvania Bulletin a notice of the lists of classes or categories of sources which are exempt from the emission statement requirement under this subsection.

025 [25 Pa. Code §135.3]**Reporting**

(a) A person who owns or operates a source to which this chapter applies, and who has previously been advised by the Department to submit a source (AIMS) report, shall submit by March 1 of each year a source report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the proceeding calendar year and sources modified during the same period which were not previously reported.

(b) A person who receives initial notification by the Department that a source report is necessary shall submit an initial source report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.

(c) A source owner or operator may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

**SECTION C. Site Level Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 026 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
- (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

027 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

25 Pa. Code 123.1(c) requires the person responsible for sources with fugitive emissions potential to take all reasonable actions to prevent particulate matter from becoming airborne. 25 Pa. Code 273.217 requires landfill operators to implement fugitive dust control measures. This criteria specifies the reasonable actions that are necessary for the prevention of fugitive dust emissions from the operation of landfills in accordance with these requirements. Landfills which meet this criteria are considered to be of minor significance with regards to particulate emissions and are not subject to Air Quality permitting requirements when no gas venting system is present.

(A) Parking lots/areas and the landfill access roadways from the public highway to the landfill and other haul roads inside the landfill shall be paved, maintained, and cleaned by vacuum sweeping or any other approved means. All parking lots/areas shall be cleaned at least weekly and the access roadways cleaned at least daily.

(B) The access roadways if unpaved at the unloading areas (active cells) shall have a crown so that water runs off and does not pool. Water or other chemical dust suppressants shall be applied to the unpaved road surface to reduce fugitive dusts. Water, if used, shall be applied at least twice a day. Chemical dust suppressants, if used, shall be applied as needed, but at least once a month.

(C) Water or other chemical dust suppressants shall be applied on the shoulder of access roadways and the shoulder of the public highway for a distance of 500 feet in both directions. Water, if used, shall be applied at least twice a day. Chemical dust suppressants, if used, shall be applied at least once a month. Application of dust suppressants on the public highway shall be done in accordance with the appropriate-PA Department of Transportation (PennDOT) Bulletins.

(D) No waste oil shall be used as a dust suppressant for the unpaved surface.

(E) Earth or other material deposited by trucking or other means on the paved roadways, including public highway, shall be promptly removed from the paved roadways.

(F) Upon leaving the landfill, the undercarriage, wheels and chassis of the vehicles which were used to transport wastes and earth shall be washed to prevent earthen carryout onto roadways.

(G) All trucks entering the landfill shall be covered.

(H) A speed limit of 15 miles per hour shall be observed on all paved access roadways and 10 miles per hour on all unpaved areas. Speed limit signs shall be posted consistent with the requirements of PennDOT (overall dimension 30" x 24", "SPEED LIMIT" in 4" letters and 10" numerals).

**SECTION C. Site Level Requirements****# 028 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

[Authority for this condition is also derived from 25 Pa. Code, Section 129.92]

The permittee shall ensure that the capture system and the control devices are in operation at all times.

029 [25 Pa. Code §127.512]**Operating permit terms and conditions.****Landfill Fugitive Emission Control Criteria**

25 Pa. Code 123.1(c) requires the person responsible for sources with potential fugitive emissions to take all reasonable actions to prevent particulate matter from becoming airborne. 25 Pa. Code 273.217 requires landfill operators to implement fugitive dust control measures. This criteria specifies the reasonable actions that are necessary for the prevention of fugitive dust emissions from the operation of landfills in accordance with these requirements. Landfills which meet this criteria are considered to be of minor significance with regards to particulate emissions and are not subject to Air Quality permitting requirements when no gas venting system is present.

030 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Control of VOC emissions shall be accomplished through the operation and maintenance of an active gas collection system and the operation and maintenance of a landfill gas flare(s) having at least a 98% destruction efficiency or a 20 ppmvd outlet concentration (as hexane) at 3% oxygen for VOCs (where VOC is considered to be equal to NMOC).

031 [25 Pa. Code §129.14]**Open burning operations**

(a) Air basins. No person may permit the open burning of material in an air basin.

(b) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:

- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
- (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
- (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
- (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.
- (5) A fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of such structure.
- (6) A fire set solely for recreational or ceremonial purposes.
- (7) A fire set solely for cooking food.

(c) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:

(1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.

(2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:

- (i) Air curtain destructors shall be used when burning clearing and grubbing wastes.
- (ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning.

**SECTION C. Site Level Requirements**

Proposals approved under this subparagraph need not obtain plan approval or operating permits under Chapter 127 (relating to construction modification, reactivation and operation of sources).

(iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.

(iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.

(3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:

(i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.

(ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.

(4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

VII. ADDITIONAL REQUIREMENTS.**# 032 [25 Pa. Code §121.7]****Prohibition of air pollution.**

The permittee may not permit the presence in the outdoor atmosphere of any form of contaminant, including, but not limited to, the discharging from stacks, chimneys, openings, buildings, structures, open fires, vehicles, processes or any other source of any smoke, soot, fly ash, dust, cinders, dirt, noxious or obnoxious acids, fumes, oxides, gases, vapors, odors, toxic, hazardous or radioactive substances, waste or other matter in a place, manner or concentration inimical or which may be inimical to public health, safety or welfare or which is or may be injurious to human, plant or animal life or to property or which unreasonably interferes with the comfortable enjoyment of life or property.

033 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) The permittee shall comply with all applicable requirements in 40 CFR Part 60, Subpart C (relating to Emission Guidelines [EG] and Compliance Times for MSW landfills) which implement the Section 111(d) requirements of the Clean Air Act. The applicable requirements include emission standards, operational standards, test methods and procedures, initial design capacity report, recordkeeping and reporting requirements.

(b) For purposes of meeting the requirements of Section 111(d) of the Clean Air Act, the terms and conditions in this permit relating to 40 CFR Part 60, Subpart C are non-expiring and shall continue in full force and effect until modified by the Department.

034 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The facility is subject to the requirements of 40 CFR Part 61, Subpart M – National Emission Standards for Hazardous Air Pollutants – Asbestos, 40 CFR 61.151, 40 CFR 61.153, and 40 CFR 61.154.

035 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The facility shall not collect any refrigeration / air conditioning equipment containing refrigerants or any other ozone depleting substance at the facility or will otherwise be subject to and / or in violation of requirements of 40 CFR Part 82, - Protection of Stratospheric Ozone.

036 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned sources(s) and/or any associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.

**SECTION C. Site Level Requirements****# 037 [25 Pa. Code §127.512]****Operating permit terms and conditions.****EPA Mandatory Greenhouse Gas (GHG) Reporting Rule**

The U.S. EPA published the final Mandatory Greenhouse Gas (GHG) Reporting Rule on October 30, 2009 in the Federal Register. The rule became effective on December 29, 2009. The annual reports are due by March 31st for the previous Reporting Year.

Rule applicability is based on source category and GHG emissions. Municipal solid waste landfills that generate methane (CH₄) in amounts equivalent to 25,000 metric tons (mt) of carbon dioxide (CO₂) equivalents (e) or more per year (mtCO₂e/yr) are subject to Subpart HH of the GHG Reporting Rule per 40 CFR Part 98.2(a)(1). Since the CH₄ generation rate is greater than 25,000 mtCO₂e/yr, Keystone is subject to the GHG Reporting Rule. Rule requirements require facilities to develop/maintain a GHG Monitoring Plan and submit an annual GHG Report using EPA's electronic Greenhouse Gas Reporting Tool (e-GGRT) software. The facility will continue to prepare and submit annual GHG Reports if actual emissions exceed 25,000 mtCO₂e/yr.

038 [25 Pa. Code §127.512]**Operating permit terms and conditions.****Reasonably Available Control Technology (RACT) – Additional RACT Requirements for Major Sources of NO_x and VOCs (RACT III)**

The Pennsylvania Environmental Quality Board promulgated the final RACT III regulation on November 12, 2022. This rule expands on the Reasonably Available Control Technology (RACT) regulations, including the establishment of numerical emission limits and presumptive RACT/RACT II requirements. It is codified under 25 Pa. Code 129.96 through 129.100. RACT is defined as the "lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."

Pursuant to 25 Pa. Code §129.96, RACT III requirements only apply to facilities that meet either the definition of a "major NO_x emitting facility" or a "major VOC emitting facility". Although Keystone is not a major VOC emitting facility, Keystone is a major NO_x emitting facility as those terms are defined in 25 Pa. Code §121.1, and is therefore subject to the RACT III requirements.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to Title V General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

***** Permit Shield In Effect *****

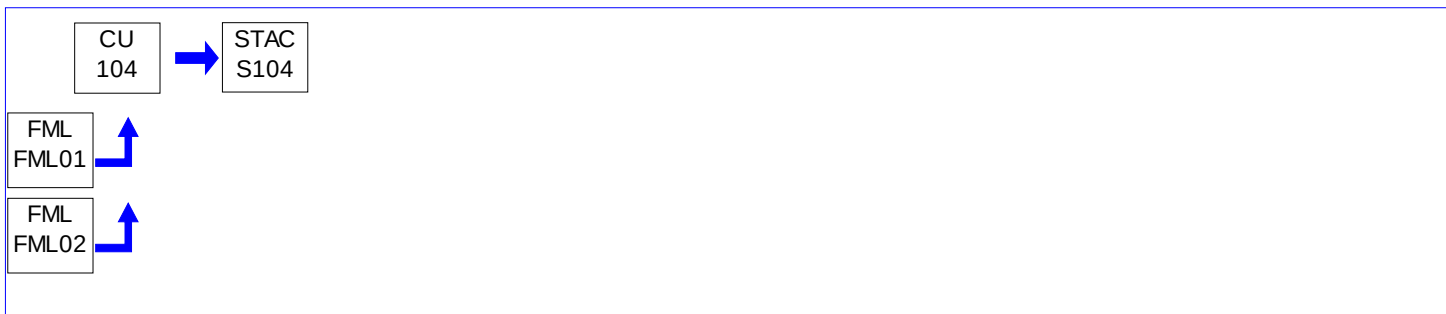
**SECTION D. Source Level Requirements**

Source ID: 104

Source Name: LEACHATE PRE-TREATMENT PLANT BOILER

Source Capacity/Throughput:

5.845 MMBTU/HR

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.11]****Combustion units**

(a) A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

(1) The rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

002 [25 Pa. Code §123.22]**Combustion units**

A person may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO₂, from a combustion unit in excess of the rate of 4 pounds per million Btu of heat input over a 1-hour period.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(1) The company shall ensure that the control devices are equipped with the applicable monitoring equipment and the monitoring equipment shall be installed, calibrated, operated, and maintained according to the vendor's specifications at all times the control device is in use.

(2) The company shall install, calibrate and maintain a gas flow rate measuring device that shall record the flow to the boiler at least every 15 minutes.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The company shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of this operating permit. The file shall include, but not be limited to all air pollution control systems performance evaluations and records of calibration checks, adjustments, and maintenance performed on all equipment which are subject to this operating permit. All measurements, records, and other data required to be maintained by the company shall be retained for at least two (2) years following the date on which such measurements, records or data are

**SECTION D. Source Level Requirements**

recorded.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

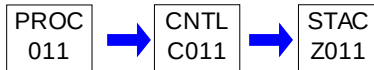
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 011

Source Name: QUARRY OPERATIONS (ALL SEGMENTS)

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.672]****Subpart 000 - Standards of Performance for Nonmetallic Mineral Processing Plants****Standard for particulate matter.**

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

Table 2

(1) Contain particulate matter in excess of 0.05 g/dscm; and
(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under § 60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in § 60.671) must not exceed 7 percent opacity; and
(2) Vents (as defined in § 60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

Table 3 – Fugitive Emission Limits

- 7%: Grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations.
- 12%: Crushers.
- Perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system.
 - o Initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles.
 - o Record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions

**SECTION D. Source Level Requirements**

taken, in a logbook.

- Conduct the procedures specified in EPA Method 9 – Visual Opacity testing to determine compliance with the Fugitive Emission Limits established in Table 3 of NSPS Subpart OOO (referenced above).
 - o Initial performance testing shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup.
 - o Submit 30-day notification prior to testing (Method 9 testing only).
 - o Submit initial performance test report within 30 days of testing

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

003 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

FUGITIVE AND VISIBLE EMISSIONS:

The permittee shall conduct daily inspections of this Source ID #011 while in operation, during daylight hours, to insure compliance with Condition #001. Visible emissions may be measured according to the methods specified in Condition #002.

IV. RECORDKEEPING REQUIREMENTS.**# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

FUGITIVE AND VISIBLE EMISSIONS:

- (a) The permittee shall, at the conclusion of each daily inspection, record all occurrences of fugitive or visible emissions which deviate from the limitations (Source Level #011, Condition #001) in a log book.
- (b) The permittee shall record any and all corrective action(s) taken to abate each recorded deviation to prevent future occurrences.

V. REPORTING REQUIREMENTS.**# 005 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

FUGITIVE AND VISIBLE EMISSIONS:

- (a) On a semi-annual basis, the permittee shall compile a report of all logged instances of deviation of the fugitive or visible emission limitations that occurred and the actions taken in response to them. This report shall be submitted to the Department.
- (b) If no deviations have been logged during the reported period, this report shall be retained at the facility and be made available to the Department upon request.

**SECTION D. Source Level Requirements****# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.676]****Subpart 000 - Standards of Performance for Nonmetallic Mineral Processing Plants****Reporting and recordkeeping.**

(a) Each owner or operator seeking to comply with § 60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

- (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
- (ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

- (i) The total surface area of the top screen of the existing screening operation being replaced and
- (ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

- (i) The width of the existing belt being replaced and
- (ii) The width of the replacement conveyor belt.

(4) For a storage bin:

- (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and
- (ii) The rated capacity in megagrams or tons of replacement storage bins.

(b)

(1) Owners or operators of affected facilities (as defined in §§ 60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under § 60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to § 60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to § 60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR Part 63, Subpart AAAAA) must maintain records of visible emissions observations required by § 63.7132(a)(3) and (b) of 40 CFR Part 63, Subpart AAAAA.

(c) - (e) N/A.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in § 60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A-4) to demonstrate compliance with § 60.672(b), (e) and (f).

(g) - (k) N/A.

VI. WORK PRACTICE REQUIREMENTS.**# 007 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The use of in-plant roads associated with the quarry operation shall not result in the emissions of fugitive particulate matter in excess of the limitations specified in Section C (Site Level Requirements) of this permit.

008 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) At all times that this source is in operation, the Water Spray Dust Suppression System shall be operated so as to prevent fugitive emissions from the Rock Crushing Operation in excess of the limitations of this permit.

**SECTION D. Source Level Requirements**

(b) The company shall keep on hand a sufficient quantity of spare water spray nozzles in order to immediately replace any nozzles requiring replacement due to clogging.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 019

Source Name: STORAGE TANK 3K-GASOLINE

Source Capacity/Throughput:

PROC
019STAC
Z019**I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §129.61]****Small gasoline storage tank control (Stage 1 control)**

(a) A person may not transfer gasoline from a delivery vessel into a stationary storage tank unless the displaced vapors from the storage tank are transferred to the dispensing delivery tank through a vapor tight return line and unless the receiving tank is equipped with a submerged fill pipe which extends from the filling orifice to within 6 inches of the bottom of the tank. The vapors collected in the dispensing tank shall be disposed of in accordance with 129.59 or 129.60(c) (relating to bulk gasoline terminals; and bulk gasoline plants).

(b) The dispensing delivery tank shall remain vapor tight at all times. The delivery tank may be opened after the vapors are disposed of in accordance with 129.59 or 129.60(c).

002 [25 Pa. Code §129.62]**General standards for bulk gasoline terminals/plants, and small gasoline storage tanks**

(a) Gasoline may not be spilled or discarded in sewers or stored in open containers or handled in a manner that would result in uncontrolled evaporation to the atmosphere.

(b) The permittee shall not permit the transfer of gasoline between the tank truck or trailer and a stationary storage tank unless the following conditions are met:

(1) The vapor balance system is in good working order and is designed and operated in a manner that prevents:

(i) Gauge pressure from exceeding 18 inches of H₂O (4500 pascals) and vacuum from exceeding 6 inches of water (1500 pascals) in the gasoline tank truck.

(ii) A reading equal to or greater than 100% of the lower explosive limit--LEL, measured as propane--at 1 inch from points on the perimeter of a potential leak source when measured by the method referenced in 139.14 (relating to emissions of volatile organic compounds) during loading or unloading operations at small gasoline storage tanks, bulk plants and bulk terminals.

(iii) Avoidable liquid leaks during loading or unloading operations at small gasoline storage tanks, bulk plants and bulk terminals.

(2) A truck, vapor balance system or vapor disposal system, if applicable, that exceeds the limits in paragraph (1) is repaired and retested within 15 days.

(3) There are no visually- or audibly-detectable leaks in the tank truck's or trailer's pressure/vacuum relief valves and hatch covers, the truck tanks or storage tanks, or associated vapor and liquid lines during loading or unloading.

(4) The pressure and vacuum relief valves on storage vessels and tank trucks or trailers are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest allowable pressure and vacuum as specified in State or local fire codes, the National Fire Prevention Association guidelines or other National consensus standards acceptable to the Department. Upon demonstration by the owner or operator of an underground small gasoline storage tank that the vapor balance system specified in paragraph (1) will achieve a 90% vapor recovery efficiency without a pressure and vacuum relief valve and that an interlock system, sufficient to ensure connection of the vapor recovery line prior to delivery of the gasoline, will be used--no pressure and vacuum relief valve is required. The vacuum setting on the pressure and vacuum relief valve on an underground storage tank may be set at the lowest vacuum setting which is sufficient to keep the vent closed at zero pressure and vacuum.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****III. MONITORING REQUIREMENTS.**

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

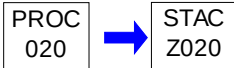
**SECTION D. Source Level Requirements**

Source ID: 020

Source Name: STORAGE TANK 6K-HYDRAULIC OIL

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

***** Permit Shield in Effect. *****

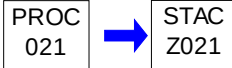
**SECTION D. Source Level Requirements**

Source ID: 021

Source Name: STORAGE TANK 8K-MOTOR OIL

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 02

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

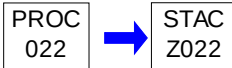
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: 022

Source Name: DIESEL STORAGE TANKS (10K AND 12K GAL)

Source Capacity/Throughput:

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.**# 001 [25 Pa. Code §129.57]****Storage tanks less than or equal to 40,000 gallons capacity containing VOCs**

The provisions of this section apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department. Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing VOCs) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

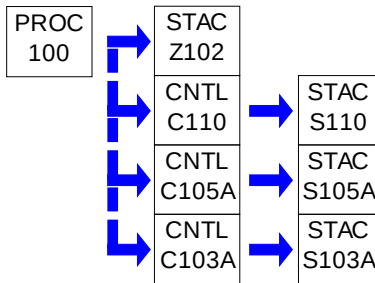
**SECTION D. Source Level Requirements**

Source ID: 100

Source Name: LANDFILL CLOSED (GAS COLLECTION SYSTEM)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 01
05
06

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

***** Permit Shield in Effect. *****

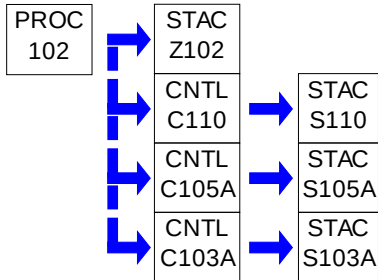
**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: LANDFILL PHASE 1 (GAS COLLECTION SYSTEM)

Source Capacity/Throughput: 120.000 Tons/HR MUNICIPAL WASTE

Conditions for this source occur in the following groups: 01
05
06

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

***** Permit Shield in Effect. *****

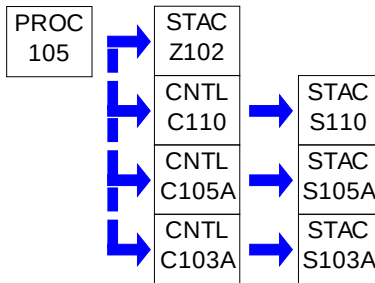
**SECTION D. Source Level Requirements**

Source ID: 105

Source Name: LANDFILL PHASE 2 (GAS COLLECTION SYSTEM)

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 01
05
06

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

***** Permit Shield in Effect. *****

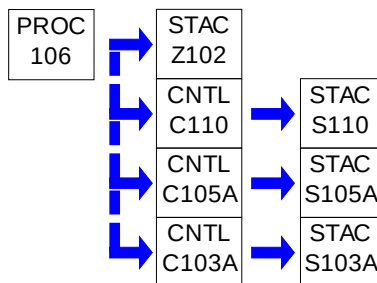
**SECTION D. Source Level Requirements**

Source ID: 106

Source Name: LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 01
05
06
07

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

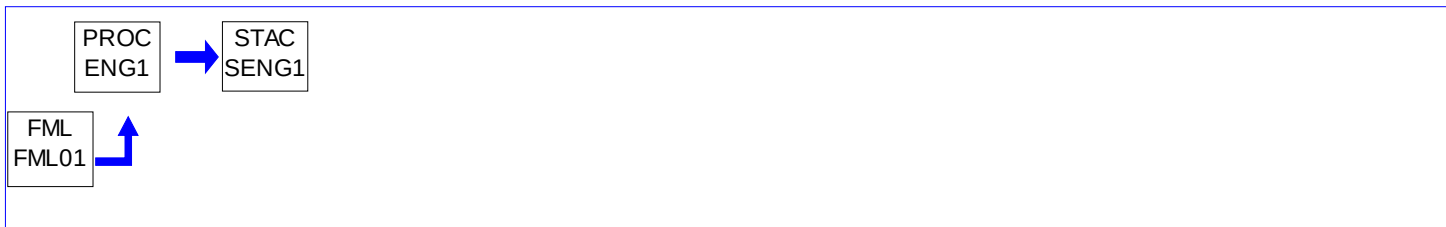
***** Permit Shield in Effect. *****

**SECTION D. Source Level Requirements**

Source ID: ENG1

Source Name: SIX (6) EMERGENCY ENGINES

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.512]

Operating permit terms and conditions.

Combined NO_x emissions for all exempt engines at the site shall be less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling sum basis.

Fuel Restriction(s).

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6604]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

(a) N/A - Emergency Engines.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) [Reserved]

(d) N/A - NOT IN SPECIFIED GEOGRAPHIC LOCATIONS

[78 FR 6702, Jan. 30, 2013, as amended at 85 FR 78463, Dec. 4, 2020; 87 FR 48607, Aug. 10, 2022]

II. TESTING REQUIREMENTS.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6615]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**When must I conduct subsequent performance tests?**

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

IF APPLICABLE:

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

**SECTION D. Source Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 004 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- (a) The company shall keep adequate records to show compliance with the emission limitations.
- (b) The owner or operator of the emergency generators shall maintain an operating log of any days that the engines are operated. The operating log shall include the dates the units operated, the total operating hours per day during each operating date, and the total number of days and hours of operation per each 12-month rolling sum period.
- (c) These records shall be maintained and kept on site for the most recent 5-year period and made available to the Department upon request.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What records must I keep?**

- (a) [N/A – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (b) [N/A – NO CEMS OR CPMS]
- (c) [N/A – LFG NOT USED]
- (d) [N/A – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) [N/A – NOT A MAJOR HAP SOURCE]
 - (2) An existing stationary emergency RICE.
 - (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purpose specified in § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
- (1) [N/A – NOT A MAJOR HAP SOURCE]
 - (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022; 89 FR 70518, Aug. 30, 2024]

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****In what form and how long must I keep my records?**

- (a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

**SECTION D. Source Level Requirements**

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

V. REPORTING REQUIREMENTS.**# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What notifications must I submit and when?**

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) [N/A – NOT A MAJOR HAP SOURCE]

(2) [N/A - PER (5) BELOW]

(3) [N/A – NOT A MAJOR HAP SOURCE]

(4) [N/A – NOT A MAJOR HAP SOURCE]

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) [N/A – NOT A MAJOR HAP SOURCE]

(c) [N/A – NOT A MAJOR HAP SOURCE]

(d) [N/A – NOT A MAJOR HAP SOURCE]

(e) [N/A – NOT A MAJOR HAP SOURCE]

(f) [N/A – 63.6590(b) DOES NOT APPLY]

(g) [N/A – PERFORMANCE TEST NOT REQUIRED]

(h) [N/A – PERFORMANCE TEST NOT REQUIRED]

(i) [N/A – EMERGENCY ENGINE(S)]

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013; 85 FR 73912, Nov. 19, 2020; 89 FR 70516, Aug. 30, 2024]

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What reports must I submit and when?**

(a) You must submit each report in Table 7 of this subpart that applies to you.

TABLE 7 REQUIREMENTS

4. For each emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in § 63.6640(f)(4)(ii), you must submit a Report. The report must contain the information in § 63.6650(h)(1). You must submit the report annually according to the requirements in § 63.6650(h)(2)-(3).

[END OF TABLE 7 REQUIREMENTS]

(b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of

**SECTION D. Source Level Requirements**

this section.

(1) [NA – ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]

(2) [NA – ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]

(3) [NA – ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]

(4) [NA – ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]

(5) [NA – ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(d) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(e) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(f) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(g) [NA – LFG NOT USED]

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating in brake HP, year construction of the engine commenced (as defined in § 63.2, where the exact year is not known, provide the best estimate), and type of engine (CI, SI 2SLB, SI 4SLB, or SI 4SRB).

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v)-(vi) [Reserved]

(vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration (in hours), and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016.

Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) Before February 26, 2025, the annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13. Beginning on February 26, 2025, the annual report must be submitted according to paragraph (i) of this section.

(i) Beginning on February 26, 2025 for the annual report specified in § 63.6650(h) and February 26, 2025 or one year after the report becomes available in CEDRI, whichever is later for all other semiannual or annual reports, submit all semiannual and annual subsequent compliance reports using the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for this subpart and following the procedure specified in § 63.9(k), except any CBI must be submitted according to the procedures in § 63.6645(h). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has

**SECTION D. Source Level Requirements**

approved a different schedule for submission of reports, the report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013; 87 FR 48607, Aug. 10, 2022; 89 FR 70517, Aug. 30, 2024]

VI. WORK PRACTICE REQUIREMENTS.**# 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]****Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, YOU MUST COMPLY WITH THE REQUIREMENTS IN TABLE 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you.

TABLE 2d REQUIREMENTS:

4. For each EMERGENCY STATIONARY CI RICE and black start stationary CI RICE**, you must meet the following requirement, except during periods of startup:

- a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first*;
- b. Inspect air cleaner every 1,000 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous inspection, whichever comes first, and replace as necessary.

5. For each EMERGENCY STATIONARY SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year**, you must meet the following requirement, except during periods of startup:

- a. Change oil and filter every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first*;
- b. Inspect spark plugs every 1,000 hours of operation or within 1 year + 30 days of the previous change, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or within 1 year + 30 days of the previous change, whichever comes first, and replace as necessary.

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

**If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[END OF TABLE 2d REQUIREMENTS]

(b) [NA – EMERGENCY ENGINE(S)]

**SECTION D. Source Level Requirements**

(c) [NA – EMERGENCY ENGINE(S)]

(d) [NA – EMERGENCY ENGINE(S)]

(e) [NA – EMERGENCY ENGINE(S)]

(f) [NA – EMERGENCY ENGINE(S)]

75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013; 89 FR 70515 preview citation details, Aug. 30, 2024]

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What are my monitoring, installation, operation, and maintenance requirements?

(a) [NA – CEMS NOT REQUIRED]

(b) [NA – CPMS NOT REQUIRED]

(c) [NA – LFG NOT USED]

(d) [NA – NOT A MAJOR HAP SOURCE]

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and aftertreatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner

consistent with good air pollution control practice for minimizing emissions:

(1) [NA – NOT A MAJOR HAP SOURCE]

(2) [NA – NOT A MAJOR HAP SOURCE]

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) [NA – EMERGENCY ENGINE(S)]

(5) [NA – EMERGENCY ENGINE(S)]

(6) [NA – EMERGENCY ENGINE(S)]

(7) [NA – EMERGENCY ENGINE(S)]

(8) [NA – EMERGENCY ENGINE(S)]

(9) [NA – EMERGENCY ENGINE(S)]

(10) [NA – EMERGENCY ENGINE(S)]

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) [NA – EMERGENCY ENGINE(S)]

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of table 2c to this subpart or in items 1 or 4 of table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water

**SECTION D. Source Level Requirements**

content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil and filter. If any of the limits are exceeded, the engine owner or operator must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil and filter within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of table 2c to this subpart or in items 5, 6, 7, 8, 10, 11, or 13 of table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil and filter change requirement in tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil and filter in table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil and filter. If any of the limits are exceeded, the engine owner or operator must change the oil and filter within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil and filter within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil and filter changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013; 89 FR 70516, Aug. 30, 2024]

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?**

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

TABLE 6 REQUIREMENTS

9. FOR EACH existing emergency and black start stationary RICE ≤ 500 HP located at a major source of HAP, existing nonemergency stationary RICE < 100 HP located at a major source of HAP, EXISTING EMERGENCY and black start STATIONARY RICE LOCATED AT AN AREA SOURCE OF HAP, existing non-emergency stationary CI RICE ≤ 300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE ≤ 500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE > 500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE > 500 HP located at an area source of HAP that are remote stationary RICE, complying with the requirement to "Work or Management practices", you must demonstrate continuous compliance by:

- Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

**SECTION D. Source Level Requirements**

[END OF TABLE 6 REQUIREMENTS]

(b) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(c) [NA – ANNUAL COMPLIANCE DEMONSTRATION NOT REQUIRED]

(d) [NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE. [EXISTING EMERGENCY RICE AT AREA HAP SOURCES ARE NOT AMONG THOSE EXEMPTED FROM THIS SECTION]

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

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

(ii)-(iii) [VACATED AS OF 5/2/16 PER COURT ORDER]

(3) [NA – NOT A MAJOR HAP SOURCE]

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in nonemergency

situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency

demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement

**SECTION D. Source Level Requirements**

with

another entity if all of the following conditions are met:

- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

VII. ADDITIONAL REQUIREMENTS.**# 012 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) Source ID ENG1 consists of the following emergency engines:

- (1) Onan/Cummins No. 30350047 (Skid #2) - 535 BHP
- (2) Detroit Diesel GenSet - 878 BHP
- (3) McGraw Edison 300 - 580 BHP
- (4) Onan/Cummins No. 11844804 - 605 BHP
- (5) Generac Turbo Diesel (Skid #1) - 308 BHP
- (6) Truck Wash Emergency Engine - 325 BHP

(b) Emergency engines at major HAP sources with a rated horsepower greater than 500 BHP are subject only to the requirements of 40 CFR Part 63.6640(f) [emergency engines (a)(1) - (a)(4)].

013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.

(b) At all times you 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 you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010, as amended at 78 FR 6702, Jan. 30, 2013]

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]**Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines****What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of

**SECTION D. Source Level Requirements**

the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE. [EXISTING EMERGENCY RICE AT AREA HAP SOURCES ARE NOT AMONG THOSE EXEMPTED FROM THIS SECTION]

[75 FR 9678, Mar. 3, 2010]

Regulatory Changes:

Individual sources within this source group that are subject to 40 CFR Part 63 Subpart ZZZZ -National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines shall comply with all applicable requirements of the Subpart.

40 CFR 63.13(a) requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

The Department copies shall be forwarded to:

Regional Air Program Manager
PA Department of Environmental Protection
909 Elmerton Avenue
Harrisburg, PA 17110-8200

In the event that the Federal Subpart that is the subject of this Source Group is revised, the permittee shall comply with the revised version of the subpart, and shall not be required to comply with any provisions in this permit designated as having the subpart as their authority, to the extent that such permit provisions would be inconsistent with the applicable provisions of the revised subpart.

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 01

Group Description: Landfill

Sources included in this group

ID	Name
100	LANDFILL CLOSED (GAS COLLECTION SYSTEM)
102	LANDFILL PHASE 1 (GAS COLLECTION SYSTEM)
105	LANDFILL PHASE 2 (GAS COLLECTION SYSTEM)
106	LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall forecast, on an annual basis, both the potential and actual VOC emissions for the following year. Actual VOC emission estimates shall include current and scheduled collection system configurations for the forecast year. If the forecast indicates that the existing and scheduled landfill gas collection and control system is not sufficient to maintain emissions of VOC from the phase 2 below the threshold of 50 tons per year, additional collection and/or control shall be installed within six (6) months of the forecast to ensure that the VOC emissions do not exceed the 50 tons per year emission limit.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

No person may permit the emission into the outdoor atmosphere of particulate matter from this source at any time, in excess of 0.04 gr/dscf, pursuant to 25 Pa. Code § 123.13 (c)(1)(i).

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The Landfill is subject to all applicable requirements of 40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants (NESHAPs): Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart.

Throughput Restriction(s).**# 005 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The average daily amount of municipal solid waste (MSW) disposal in the Phase III landfill site shall be not be more than 7,250 tons calculated on a standard quarter.

006 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The average daily amount of municipal solid waste (MSW) disposal in the Phase III landfill site shall be not be more than 7,250 tons calculated on a standard quarter.

The maximum daily volume of municipal solid waste (MSW) disposal in the Phase III landfill site shall be not be more than 7,500 tons calculated on a standard quarter.

The annual amount of municipal solid waste (MSW) disposal in the Phase III landfill site shall be not be more than 2,262,000 tons.

**SECTION E. Source Group Restrictions.****Control Device Efficiency Restriction(s).****# 007 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The active gas collection system may not have a collection efficiency of less than 75.00% for Volatile Organic Compounds.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 008 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall routinely conduct inspections of the gas extraction and collection system associated with the solid waste disposal area to ensure that no leaks of landfill gas are occurring from the system.

(b) Any such leaks shall be immediately repaired.

009 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall, on a daily basis, determine the total amount of landfill gas generated by the landfill and the total amount of landfill gas combusted by the cogeneration plant and/or flares. The total volume of landfill gas generated shall be determined using the EPA Landfill Gas Emissions Model (2.0 or latest version) by inputting actual waste landfilling rates and actual landfill gas (NMOC) concentrations.

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1961]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****Monitoring of operations.**

Except as provided in § 63.1981(d)(2):

(a) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 63.1960(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by § 63.1981(d)(2).

(ii) Unless an alternative test method is established as allowed by § 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10- and 12-percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required; and

(E) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14).

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), the owner or operator must follow the procedures as specified in § 60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as

**SECTION E. Source Group Restrictions.**

provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in § 63.1983(e).

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or 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, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

(i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;

(iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.

(iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.

(v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(vi) Monitor and determine carbon monoxide concentrations, as follows:

(A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.

(C) When sampling directly from the wellhead, you must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead.

(D) When collecting samples in a passivated canister or multi-layer foil sampling bag, you must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give you a carbon monoxide value from the wellhead.

(vii) The enhanced monitoring described in this paragraph (a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and

(viii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.

(ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).

(6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:

**SECTION E. Source Group Restrictions.**

- (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and
- (2) A device that records flow to the flare and bypass of the flare (if applicable). 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 § 63.1959(b)(2)(iii) 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 § 63.1981(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 § 63.1962 or seeking to monitor alternative parameters to those required by §§ 63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in § 63.1981(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.
- (f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in § 63.1958(d) must monitor surface concentrations of methane according to the procedures in § 63.1960(c) and the instrument specifications in § 63.1960(d). If you are complying with the 500-ppm surface methane operational standard in § 63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in § 63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. 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 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.
- (g) Each owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 63.1983(b)(5)(ii). The owner or operator must:
- (1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and
 - (2) 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.
- (h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020; 87 FR 8203 preview citation details, Feb. 14, 2022]

**SECTION E. Source Group Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 011 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records sufficient to demonstrate that the collection/capture efficiency of the landfill gas collection system is at least 75%.

V. REPORTING REQUIREMENTS.**# 012 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall, on a quarterly basis, submit a report demonstrating that the collection/capture efficiency of the landfill gas collection system was in compliance during the preceding three (3) months. This report shall be submitted to the Department within thirty (30) days of the close of the quarter.

013 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

1. On a quarterly basis, the owner/operator shall report the following for the preceding 3-month period:
 - a. Average collected landfill gas flow rate in cfm by month and calculated collection efficiency for each quarter;
 - b. Average quality of collected landfill gas by month including percent methane, percent carbon dioxide, percent oxygen and percent balance gas;
 - c. Predicted average landfill gas generation rate for the current year as calculated by the latest run of a landfill gas prediction model;
 - d. Data from quarterly surface emission monitoring in a summary spreadsheet.

014 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

40 CFR 63.13 requires submission of copies of all requests, reports, applications, submittals, and other communications to both EPA and the Department. The EPA copies shall be forwarded to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

015 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The landfill gas collection and control system will:

- (a) Be designed to handle, over the intended use period of the gas control or treatment system equipment, the maximum expected gas flow rate from the entire landfill area that warrants control;
- (b) Collect gas at a sufficient extraction rate (a rate sufficient to maintain a negative pressure at all well heads in the collection system without causing air infiltration, including any well heads connected to the system as a result of expansion or excess surface emissions, for the life of the blower); and,
- (c) Be designed to minimize off-site migration of subsurface gas.

VI. WORK PRACTICE REQUIREMENTS.**# 016 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Uncontrolled stripping of VOC from the leachate and/or condensate shall not be permitted.

017 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall measure the landfill gas collected by the collection system in order to compare with the landfill gas generation predicated by the latest landfill model & for calculating the collection efficiency quarterly.

**SECTION E. Source Group Restrictions.****# 018 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The owner/operator shall forecast, on an annual basis, the landfill gas generation and collection for the following year. If the forecast indicates that the existing flare (s) is not sufficient to incinerate the collected gases, additional approved flare(s) shall be installed and operated within six months of the forecast to ensure that the 100 % of the collected gases are incinerated and/or destructed by other methods approved by the Department.

019 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

(a) In order to prevent offsite migration of landfill gas, the gas collection system shall be designed to collect gas from the maximum possible area of the landfill and to accommodate the maximum gas generation rate of the landfill.

(b) The collection system shall be operated and maintained to ensure that the gas collection rate is no less than the gas generation rate. In order to assure compliance with this requirement, no positive pressure shall be measurable at the wells. Each well shall be equipped with a throttling valve to enable adjustment of the gas collection rate, if necessary.

(c) There shall be no landfill gas leaks which result in concentrations of 500 ppmv or more measured as propane (or 1375 ppmv or more measured as methane) at a distance of 0.5 inches from any equipment which includes gas wells, piping or any other connections or fittings along the landfill gas transfer paths of a landfill gas collection system, energy recovery, gas purification and/or any other disposal system. Non repeatable and momentary readings shall not be considered.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 02

Group Description: Storage Tanks

Sources included in this group

ID	Name
020	STORAGE TANK 6K-HYDRAULIC OIL
021	STORAGE TANK 8K-MOTOR OIL

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee may only store hydraulic oil in the 6,000 gallon underground storage tank and only store motor oil in the 8,000 gallon underground storage tank.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall monitor the daily usage of materials used and stored in the underground storage tank.

IV. RECORDKEEPING REQUIREMENTS.**# 003 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall keep a daily log book on the amount of materials used and the amount of material loaded in the underground storage tanks.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 03

Group Description: Enclosed Flares

Sources included in this group

ID	Name
C103A	ENCLOSED FLARE 2 (6000 CFM)
C105A	ENCLOSED FLARE 3 (6000 CFM)
C106	FLARE - ENCLOSED PORTABLE (800 CFM)
C110	FLARE - ENCLOSED (5000 CFM)
C111	FLARE - ENCLOSED (4000 CFM) PORTABLE

I. RESTRICTIONS.**Control Device Efficiency Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Pursuant to the Best Available Control Technology provisions of 25 Pa. Code Section 127.12(a)(5) of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection the following requirements are hereby established for each flare:

- (1) Enclosed flare shall be designed such that there are no visible flames during normal operations.
- (2) Enclosed flare shall be operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.
- (3) Enclosed flare shall maintain, for each 3-hour period of operation based on rolling hourly data, an average combustion temperature of no more than 28°C (50.4°F) below the average combustion temperature during the most recent performance test in which compliance with the destruction/removal was demonstrated. If there has been no performance test, then a minimum temperature of 1500°F (815.6°C) will be necessary.
- (4) Enclosed flare may be operated at a lower temperature provided that the company has demonstrated, by a stack test, the flare will achieve the 98% destruction/removal efficiency or 20 ppm_{dv}, measured as hexane and corrected to 3% oxygen, at the lower temperature and complies with all the emission limits established in the plan approval. If compliance has been demonstrated at the lower temperature, the owner or operator of the landfill is required to submit a plan approval application to make the lower operating temperature enforceable. Operation at the lower temperature can not occur until approved by the Department. Under no circumstance the flare(s) shall be operated with an operating temperature less than 1200°F.
- (5) The enclosed flare shall be equipped with an automatic pilot ignition source using an auxiliary fuel (e.g. propane or natural gas).
- (6) The enclosed flare shall be operated with a flame present at all times and equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During the restart or start-up, there shall be sufficient flow of auxiliary fuel to the burners such that unburned landfill gases are not emitted to the atmosphere.
- (7) The flue gas temperature of the enclosed flare shall be measured and recorded in the combustion zone as per the manufacturer's specifications based on the flow into the flare. The temperature in the combustion zone shall be used to determine compliance with the minimum temperature requirement. The temperature monitoring device shall meet the 40 CFR requirements.

II. TESTING REQUIREMENTS.**# 002 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

1. Source tests shall be conducted on each flare within 180 days after start-up. The Department reserves the right to require the owner to conduct further tests at any time after the initial compliance tests to demonstrate: (a) either the destruction/removal efficiency (DRE) of at least 98% (by weight) for total nonmethane organic compounds (NMOCs) or a reduction in the NMOC concentration of the gas at the flare exit to 20 PPM or less as hexane by volume, dry basis at 3 % O₂; and (b) NOX (measured as NO₂ as ppm_{dv}). The Department reserves the right to require the owner or operator to conduct

**SECTION E. Source Group Restrictions.**

further tests at any time after the initial compliance tests.

2. All performance tests shall be conducted in accordance with 40 CFR Subpart AAAA and the Department's source testing procedures described in the latest Source Testing Manual reference in 25 Pa Code Section 139.4(5). Test procedures are to be approved by the Department prior to the actual testing.

3. At least two (2) weeks prior to the test, the Regional Air Quality Program Manager shall be informed of the date and time of the test.

4. At least sixty (60) days prior to the test required by Condition #001, a pre-test protocol shall be submitted to the Department for review.

5. Within sixty (60) days of the completion of the test required by Condition #001, two copies of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Program Manager.

III. MONITORING REQUIREMENTS.**# 003 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

(a) The permittee shall ensure that these control devices are equipped with all applicable monitoring equipment, and that such equipment is installed, calibrated, operated and maintained according to the vendor's specifications at all times that a control device is in use.

(b) The operating temperatures of the combustion system shall be continuously measured and recorded at least every 15 minutes. The temperature shall be monitored and maintained at the minimum temperature achieved during the performance test in which compliance with the DRE, or outlet concentration requirement was demonstrated.

(c) Within 30 minutes of start up of the combustion system (flare), the combustion systems must achieve combustion temperature of at least a minimum temperature achieved during the performance test in which compliance with the DRE, or outlet concentration requirement was demonstrated.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1961]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
Monitoring of operations.**

Except as provided in § 63.1981(d)(2):

(a) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 63.1960(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by § 63.1981(d)(2).

(ii) Unless an alternative test method is established as allowed by § 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10- and 12-percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required; and

(E) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14).

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), the owner or operator

**SECTION E. Source Group Restrictions.**

must follow the procedures as specified in § 60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in § 63.1983(e).

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or 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, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

(i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;

(iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.

(iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.

(v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(vi) Monitor and determine carbon monoxide concentrations, as follows:

(A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.

(C) When sampling directly from the wellhead, you must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead.

(D) When collecting samples in a passivated canister or multi-layer foil sampling bag, you must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give you a carbon monoxide value from the wellhead.

(vii) The enhanced monitoring described in this paragraph (a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and

(viii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.

(ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).

(6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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

**SECTION E. Source Group Restrictions.**

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.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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; and

(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 § 63.1959(b)(2)(iii) 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 § 63.1981(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 § 63.1962 or seeking to monitor alternative parameters to those required by §§ 63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in § 63.1981(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.

(f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in § 63.1958(d) must monitor surface concentrations of methane according to the procedures in § 63.1960(c) and the instrument specifications in § 63.1960(d). If you are complying with the 500-ppm surface methane operational standard in § 63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in § 63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. 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 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 63.1983(b)(5)(ii). The owner or operator must:

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

(2) 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.

(h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this

**SECTION E. Source Group Restrictions.**

subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020; 87 FR 8203 preview citation details, Feb. 14, 2022]

IV. RECORDKEEPING REQUIREMENTS.**# 005 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The operating temperature of the combustion system shall be continuously measured and recorded. The temperature shall be monitored and maintained at the minimum temperature achieved during the performance test in which compliance with the DRE requirement was demonstrated. The average combustion temperature shall be measured at least every 15 minutes and average over the same time period of the performance test.

006 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The operating temperature of each flare shall be recorded whenever the flare is in operation. The recording charts shall be made available to Department personnel upon request. All such records shall be maintained for a period of not less than five (5) years.

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

1. The company shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of this operating permit. The file shall include, but not be limited to: all air pollution control systems performance evaluations and records of calibration checks, adjustments and maintenance performed on all equipment which is subject to this operating permit. All measurements, records and other data required to be maintained by the company shall be retained for at least five years following the date on which such measurements, records or data are recorded.

2. Temperature shall be recorded whenever the flare is in operation. The recording charts shall be made available to the Department personnel upon request. These records shall be maintained for a period of time not less than five years.

V. REPORTING REQUIREMENTS.**# 008 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

1. Any changes in the process or control equipment would be consider a modification and would require the submittal of an amended application for plan approval in accordance with the provisions of 25 PA Code 127.11 and 127.12.

2. All flares are subject to 40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart.

All requests, report, applications, submittals, and other communications to both EPA and the Department. The EPA copies shall be forwarded to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

VI. WORK PRACTICE REQUIREMENTS.**# 009 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The enclosed flares incorporated in the landfill gas extraction, collection and control system associated with the solid waste disposal area shall meet the following criteria:

(a) Each flare shall be equipped with the necessary equipment to allow auxiliary fuel to be bled into the landfill gas to enhance its heat content.

**SECTION E. Source Group Restrictions.**

(b) There shall be sufficient flow of auxiliary fuel during system start-up or re-start such that a flame is supported and unburnt gases are not emitted to the atmosphere.

(c) The temperature sensor associated with the continuous temperature monitor shall be positioned so that it will indicate the temperature of the gases. The records will be kept on file for at least five years and will be made available to the Department upon request.

(d) In the event that a flare is operating at less than 1500 degree Fahrenheit, an automatic shut-off device shall immediately stop the flow of landfill gas to the flare and the flare shall be automatically shut down while sounding an alarm.

(e) The flares shall, at any given point in time, be capable of accommodating the maximum gas collection rate which will exist at that point in time while maintaining compliance with the limitations and requirements specified in, or established pursuant to, all applicable rules and regulations contained in Article III of the Rules and Regulations of the Department of Environmental Protection as well as compliance with all conditions contained herein.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 04

Group Description: Portable Candle Flares

Sources included in this group

ID	Name
C107	FLARE - PORTABLE CANDLE #1 (500 CFM)
C108	FLARE - PORTABLE CANDLE #2 (500 CFM)
C109	FLARE - PORTABLE CANDLE #3 (500 CFM)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

Pursuant to the Best Available Control Technology provisions of 25 Pa. Code Section 127.12(a)(5) of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection the following requirements are hereby established for open flare:

1. Open flares shall be limited to 500 dscfm each, at 50% methane (net heat input not to exceed 15 million Btu per hour, calculated on the higher heating value of the landfill gas).
2. The total landfill gas combusted in open flare(s) at a facility shall not exceed the greater of either 500 dscfm, at 50% methane (net heat input not to exceed 15 million Btu per hour, calculated on the higher heating value of the landfill gas) or 20% of the total landfill gas flow, at 50% methane.
3. The open flares shall be designed in accordance with the requirements of 40 CFR Section 60.18 (40 CFR Section 60.752(b)(2)(iii)(A)).
4. The open flares shall be equipped with an automatic pilot ignition source.
5. The open flares shall be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 002 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The landfill owner or operator will monitor, on a daily basis, the flow rate, in dscfm, of the landfill gas to be combusted in the flares.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1961]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Monitoring of operations.**

Except as provided in § 63.1981(d)(2):

- (a) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
- (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 63.1960(a)(3); and
 - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
 - (i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by § 63.1981(d)(2).
 - (ii) Unless an alternative test method is established as allowed by § 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated

**SECTION E. Source Group Restrictions.**

by reference, see § 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

- (A) The span must be set between 10- and 12-percent oxygen;
 - (B) A data recorder is not required;
 - (C) Only two calibration gases are required, a zero and span;
 - (D) A calibration error check is not required; and
 - (E) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.
- (iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and
(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14).

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), the owner or operator must follow the procedures as specified in § 60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in § 63.1983(e).

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or 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, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

(i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;

(iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.

(iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.

(v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(vi) Monitor and determine carbon monoxide concentrations, as follows:

(A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.

(C) When sampling directly from the wellhead, you must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead.

(D) When collecting samples in a passivated canister or multi-layer foil sampling bag, you must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give you a carbon monoxide value from the wellhead.

(vii) The enhanced monitoring described in this paragraph (a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and

(viii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.

(ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).

(6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165

**SECTION E. Source Group Restrictions.**

degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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; and

(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 § 63.1959(b)(2)(iii) 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 § 63.1981(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 § 63.1962 or seeking to monitor alternative parameters to those required by §§ 63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in § 63.1981(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.

(f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in § 63.1958(d) must monitor surface concentrations of methane according to the procedures in § 63.1960(c) and the instrument specifications in § 63.1960(d). If you are complying with the 500-ppm surface methane operational standard in § 63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in § 63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. 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 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 63.1983(b)(5)(ii). The owner or operator must:

**SECTION E. Source Group Restrictions.**

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

(2) 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.

(h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020; 87 FR 8203 preview citation details, Feb. 14, 2022]

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The landfill owner or operator will record, on a daily basis, the amount of landfill gas combusted in the flares.

V. REPORTING REQUIREMENTS.

005 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The flares are subject to all applicable requirements of 40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart.

40 CFR 63.13 requires submission of copies of all requests, reports, applications, submittals, and other communications to both EPA and the Department. The EPA copies shall be forwarded to:

Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

VI. WORK PRACTICE REQUIREMENTS.

006 [25 Pa. Code §127.512]

Operating permit terms and conditions.

1. The Department may approve the use of an open flares for flow rates higher than 500 dscfm, at 50% methane (net heat input can exceed 15 million Btu per hour, calculated on the higher heating value of the landfill gas), provided that the company provides a detailed technical and economic analysis of the use of an open flare versus an enclosed flare.
2. The open flare shall be operated with a flame present at all times.
3. Pursuant to the requirements of 40 CFR Section 60.18, open flare shall be located in a manner to mitigate visual impacts by meeting any one of the following requirements:
 - a. Blocking the view of the flares with screening or plantings;
 - b. Erecting a berm or similar earthwork barrier (berm);
 - c. Locating the open flares behind an existing berm, or placing it in a hollow or other depression;
 - d. Placing the flare at least 500 feet from the nearest occupied private residence (a residence that is owned by the landfill or any entity affiliated with the landfill is not deemed a private residence); or
 - e. Installing a shroud that has been designed to minimize visible flames during normal operation.

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 05

Group Description: 40 CFR Part 63 Subpart AAAA

Sources included in this group

ID	Name
100	LANDFILL CLOSED (GAS COLLECTION SYSTEM)
102	LANDFILL PHASE 1 (GAS COLLECTION SYSTEM)
105	LANDFILL PHASE 2 (GAS COLLECTION SYSTEM)
106	LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1935]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills**
Am I subject to this subpart?

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) Your MSW landfill is a major source as defined in § 63.2 of subpart A.
- (2) Your MSW landfill is collocated with a major source as defined in § 63.2 of subpart A.
- (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.

(b) 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, that includes a bioreactor, as defined in § 63.1990, and that meets any one of the criteria in paragraphs (b)(1) through (3) of this section:

- (1) Your MSW landfill is a major source as defined in § 63.2 of subpart A.
- (2) Your MSW landfill is collocated with a major source as defined in § 63.2 of subpart A.
- (3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and that is not permanently closed as of January 16, 2003.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1955]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills**
What requirements must I meet?

§ 63.1955 What requirements must I meet?

(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).

(b) If you own or operate a bioreactor that is located at an MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³, then you must meet the requirements of this subpart, including requirements in paragraphs (b)(1) and (2) of this section.

- (1) You must comply with this subpart starting on the date you are required to install the gas collection and control system.
- (2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area.

**SECTION E. Source Group Restrictions.**

(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.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1957]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Requirements for gas collection and control system installation and removal.**

(a) Operation. Operate the collection and control device in accordance with the provisions of §§ 63.1958, 63.1960, and 63.1961.

(b) Removal criteria. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

(1) The landfill is a closed landfill (as defined in § 63.1990). A closure report must be submitted to the Administrator as provided in § 63.1981(f);

(2) The gas collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and

(3) Following the procedures specified in § 63.1959(c), the calculated NMOC emission rate at the landfill is less than 50 Mg/yr on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1958]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Operational standards for collection and control systems.**

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 63.1957 must:

(a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:

(1) 5 years or more if active; or

(2) 2 years or more if closed or at final grade;

(b) Operate the collection system with negative pressure at each wellhead except under the following conditions:

(1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the semi-annual reports as provided in § 63.1981(h);

(2) Use of a geomembrane or synthetic cover. The owner or operator must develop acceptable pressure limits in the design plan;

(3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the Administrator as specified in § 63.1981(d)(2);

(c) Operate each interior wellhead in the collection system as specified in 40 CFR 60.753(c), until the landfill owner or operator elects to meet the operational standard for temperature in paragraph (c)(1) of this section.

(1) Beginning no later than September 27, 2021, operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit).

(2) The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Administrator for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).

(d)

(1) Operate the collection system so that the methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. To determine if this level is exceeded, 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

**SECTION E. Source Group Restrictions.**

intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. 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.

(2) Beginning no later than September 27, 2021, the owner or operator must:

(i) Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 63.1960(d).

(ii) Conduct surface testing at all cover penetrations. Thus, the owner or operator must monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required.

(iii) Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(e) Operate the system as specified in § 60.753(e) of this chapter, except:

(1) Beginning no later than September 27, 2021, operate the system in accordance to § 63.1955(c) such that all collected gases are vented to a control system designed and operated in compliance with § 63.1959(b)(2)(iii). In the event the collection or control system is not operating:

(i) The gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and

(ii) Efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation.

(2) [Reserved]

(f) Operate the control system at all times when the collected gas is routed to the system.

(g) If monitoring demonstrates that the operational requirements in paragraph (b), (c), or (d) of this section are not met, corrective action must be taken as specified in § 63.1960(a)(3) and (5) or (c). If corrective actions are taken as specified in § 63.1960, the monitored exceedance is not a deviation of the operational requirements in this section.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64400, Oct. 13, 2020]

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1959]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills NMOC calculation procedures.

(a) Calculate the NMOC emission rate using the procedures specified in § 60.754(a) of this chapter, except:

(1) NMOC emission rate. Beginning no later than September 27, 2021 the landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for k, 170 cubic meters per megagram (m³/Mg) for LO, and 4,000 parts per million by volume (ppmv) as hexane for the CNMOC. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.

(i)

(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

Where:

MNMOC = Total NMOC emission rate from the landfill, Mg/yr.

k = Methane generation rate constant, year⁻¹.

Lo = Methane generation potential, m³/Mg solid waste.

Mi = Mass of solid waste in the ith section, Mg.

ti = Age of the ith section, years.

CNMOC = Concentration of NMOC, ppmv as hexane.

**SECTION E. Source Group Restrictions.**

3.6×10^{-9} = Conversion factor.

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

(ii)

(A) Equation 2 must be used if the actual year-to-year solid waste acceptance rate is unknown.

Where:

MNMOc = Mass emission rate of NMOC, Mg/yr.

L_o = Methane generation potential, m^3 /Mg solid waste.

R = Average annual acceptance rate, Mg/yr.

k = Methane generation rate constant, year⁻¹.

t = Age of landfill, years.

CNMOC = Concentration of NMOC, ppmv as hexane.

c = Time since closure, years; for active landfill c=0 and e-kc = 1.

3.6×10^{-9} = Conversion factor.

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

(2) Tier 1. The owner or operator must compare the calculated NMOC mass emission rate to the standard of 50 Mg/yr.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 Mg/yr, then the landfill owner or operator must submit an NMOC emission rate report according to § 63.1981(c) and must recalculate the NMOC mass emission rate annually as required under paragraph (b) of this section.

(ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 50 Mg/yr, then the landfill owner must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in § 63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, according to paragraphs (b)(2)(ii) and (iii) of this section;

(B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or

(C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.

(3) Tier 2. The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using EPA Method 25 or 25C of appendix A-7 to part 60. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 to part 60 by 6 to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, EPA Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

**SECTION E. Source Group Restrictions.**

- (i) Within 60 days after the date of completing each performance test (as defined in § 63.7 of subpart A), the owner or operator must submit the results according to § 63.1981(l)(1).
- (ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (ii) of this section and use the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.
- (iii) If the resulting NMOC mass emission rate is less than 50 Mg/yr, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to § 63.1981(c) and must recalculate the NMOC mass emission rate annually as required under paragraph (b) of this section. The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.
- (iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 50 Mg/yr, the landfill owner or operator must either:
- (A) Submit a gas collection and control system design plan within 1 year as specified in § 63.1981(d) and install and operate a gas collection and control system within 30 months according to paragraphs (b)(2)(ii) and (iii) of this section; or
 - (B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section.
- (4) Tier 3. The site-specific methane generation rate constant must be determined using the procedures provided in EPA Method 2E of appendix A-1 to part 60 of this chapter. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator must compare the resulting NMOC mass emission rate to the standard of 50 Mg/yr.
- (i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 50 Mg/yr, the owner or operator must:
- (A) Submit a gas collection and control system design plan within 1 year as specified in § 63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, according to paragraphs (b)(2)(ii) and (iii) of this section.
 - (B) [Reserved]
- (ii) If the NMOC mass emission rate is less than 50 Mg/yr, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in § 63.1981(c). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.
- (5) Other methods. The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.
- (b) Each owner or operator of an affected source having a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in paragraph (a) of this section. The NMOC emission rate must be recalculated annually, except as provided in § 63.1981(c)(1)(ii)(A).
- (1) If the calculated NMOC emission rate is less than 50 Mg/yr, the owner or operator must:
- (i) Submit an annual NMOC emission rate emission report to the Administrator, except as provided for in § 63.1981(c)(1)(ii); and
 - (ii) Recalculate the NMOC emission rate annually using the procedures specified in paragraph (a)(1) of this section until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg/yr, or the landfill is closed.
- (A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 50 Mg/yr, the owner or operator must either: comply with paragraph (b)(2) of this section or calculate NMOC emissions using the next higher tier in paragraph (a) of this section.
- (B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided for in § 63.1981(f).
- (2) If the calculated NMOC emission rate is equal to or greater than 50 Mg/yr using Tier 1, 2, or 3 procedures, the owner or operator must either:
- (i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in § 63.1981(d) or calculate NMOC emissions using the next higher tier in paragraph (a) of this section. The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.

**SECTION E. Source Group Restrictions.**

(ii) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(B) or (C) and (b)(2)(iii) of this section within 30 months after:

(A) The first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 Mg.

(B) An active collection system must:

(1) 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;

(2) 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;

(3) Collect gas at a sufficient extraction rate; and

(4) Be designed to minimize off-site migration of subsurface gas.

(C) A passive collection system must:

(1) Comply with the provisions specified in paragraphs (b)(2)(ii)(B)(1), (2), and (3) of this section; and

(2) 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 § 258.40 of this chapter.

(iii) Control system. Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B), or (C) of this section.

(A) A non-enclosed flare designed and operated in accordance with the parameters established in § 63.11(b) except as noted in paragraph (e) of this section; or

(B) 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 ppmv, dry basis as hexane at 3-percent oxygen. The reduction efficiency or ppmv 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 paragraph (e) of this section. 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.

(1) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.

(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 §§ 63.1961(b) through (e);

(C) 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-British thermal unit (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 (b)(2)(iii)(A) or (B) of this section.

(D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) 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)(2)(iii)(A) or (B) of this section.

(c) 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 § 63.1957(b)(3), using Equation 3:

Where:

MNMOC = Mass emission rate of NMOC, Mg/yr.

QLFG = Flow rate of landfill gas, m³ per minute.

CNMOC = Average NMOC concentration, ppmv as hexane.

1.89×10^{-3} = Conversion factor.

(1) The flow rate of landfill gas, QLFG, 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 part 60.

(2) The average NMOC concentration, CNMOC, 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 25C of appendix A-7 to part 60 of this chapter. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from

**SECTION E. Source Group Restrictions.**

EPA Method 25 or 25C of appendix A-7 to part 60 by 6 to convert from CNMOC as carbon to NMOC as hexane.

(3) 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.

(i) Within 60 days after the date of completing each performance test (as defined in § 63.7), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to § 63.1981(l)(1).

(ii) [Reserved]

(d) For the performance test required in § 63.1959(b)(2)(iii)(B), EPA Method 25 or 25C (EPA Method 25C of appendix A-7 to part 60 of this chapter may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20- ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 63.1981(d)(2). EPA Method 3, 3A, or 3C of appendix A-7 to 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 ppm NMOC as carbon (8 ppm NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 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 landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

Where:

NMOC_{in} = Mass of NMOC entering control device.

NMOC_{out} = Mass of NMOC exiting control device.

(e) For the performance test required in § 63.1959(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in § 63.11(b)(6)(ii) is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C of appendix A to part 60 of this chapter. 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 § 63.11(b)(7) of subpart A.

(1) Within 60 days after the date of completing each performance test (as defined in § 63.7), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by § 63.1959(c) or (e) according to § 63.1981(l)(1).

(2) [Reserved]

(f) The performance tests required in §§ 63.1959(b)(2)(iii)(A) and (B), must be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64400, Oct. 13, 2020]

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1960]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Compliance provisions.

§ 63.1960 Compliance provisions.

(a) Except as provided in § 63.1981(d)(2), the specified methods in paragraphs (a)(1) through (5) of this section must be used to determine whether the gas collection system is in compliance with § 63.1959(b)(2)(ii).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 63.1959(b)(2)(ii)(C)(1), either Equation 5 or Equation 6 must be used. 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. The methane generation rate constant (k) and methane generation potential (L₀) kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be

**SECTION E. Source Group Restrictions.**

appropriate and approved by the Administrator. If k has been determined as specified in § 63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

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

Where:

Q_m = Maximum expected gas generation flow rate, m³/yr.

L_o = Methane generation potential, m³/Mg solid waste.

R = Average annual acceptance rate, Mg/yr.

k = Methane generation rate constant, year⁻¹.

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

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

2 = Constant.

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

Where:

Q_m = Maximum expected gas generation flow rate, m³/yr.

k = Methane generation rate constant, year⁻¹.

L_o = Methane generation potential, m³/Mg solid waste.

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

t_i = Age of the i th section, years.

(iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 in paragraph (a)(1)(i) or (ii) of this section or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

(2) For the purposes of determining sufficient density of gas collectors for compliance with § 63.1959(b)(2)(ii)(B)(2), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

(3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with § 63.1959(b)(2)(ii)(B)(3), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well monthly. Any attempted corrective measure must not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval. If a positive pressure exists, follow the procedures as specified in § 60.755(a)(3), except:

(i) Beginning no later than September 27, 2021, if a positive pressure exists, action must be initiated to correct the exceedance within 5 days, except for the three conditions allowed under § 63.1958(b).

(A) If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to § 63.1983(e)(3).

(B) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in § 63.1981(h)(7) as part of the next semi-annual report. The owner or operator must keep records according to § 63.1983(e)(4).

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the

**SECTION E. Source Group Restrictions.**

Administrator, according to § 63.1981(j). The owner or operator must keep records according to § 63.1983(e)(5).

(ii) [Reserved]

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), for the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must follow the procedures as specified in § 60.755(a)(5) of this chapter, except:

(i) Once an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), the owner or operator must monitor each well monthly for temperature for the purpose of identifying whether excess air infiltration exists. If a well exceeds the operating parameter for temperature as provided in § 63.1958(c)(1), action must be initiated to correct the exceedance within 5 days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(A) If a landfill gas temperature less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit) cannot be achieved within 15 days of the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) was first measured. The owner or operator must keep records according to § 63.1983(e)(3).

(B) If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). The owner or operator must submit the items listed in § 63.1981(h)(7) as part of the next semi-annual report. The owner or operator must keep records according to § 63.1983(e)(4).

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator, according to § 63.1981(h)(7) and (j). The owner or operator must keep records according to § 63.1983(e)(5).

(D) If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured, according to the procedures in § 63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv the corrective action(s) for the wellhead temperature standard (62.8 degrees Celsius or 145 degrees Fahrenheit) must be completed within 15 days.

(5) An owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in § 63.1962 must provide information satisfactory to the Administrator as specified in § 63.1981(d)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with § 63.1958(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in § 63.1981(d). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.

(c) The following procedures must be used for compliance with the surface methane operational standard as provided in § 63.1958(d).

(1) After installation and startup of the gas collection system, the owner or operator must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.

(2) The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

(3) Surface emission monitoring must be performed in accordance with section 8.3.1 of EPA Method 21 of appendix A-7 of part 60 of this chapter, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

(4) Any reading of 500 ppm or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of § 63.1958(d).

(i) The location of each monitored exceedance must be marked and the location and concentration recorded. Beginning no later than September 27, 2021, the location must be recorded using an instrument with an accuracy of at least 4 meters.

**SECTION E. Source Group Restrictions.**

The coordinates must be in decimal degrees with at least five decimal places.

(ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 days of detecting the exceedance.

(iii) If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section has been taken.

(iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must be taken.

(v) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device must be installed within 120 days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.

(5) The owner or operator must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

(d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

(1) The portable analyzer must meet the instrument specifications provided in section 6 of EPA Method 21 of appendix A of part 60 of this chapter, except that "methane" replaces all references to "VOC".

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air.

(3) To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of appendix A of part 60 of this chapter, the instrument evaluation procedures of section 8.1 of EPA Method 21 of appendix A of part 60 must be used.

(4) The calibration procedures provided in sections 8 and 10 of EPA Method 21 of appendix A of part 60 of this chapter must be followed immediately before commencing a surface monitoring survey.

(e)

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standards in introductory paragraph § 63.1958(e), the provisions of this subpart apply at all times, except during periods of SSM, provided that the duration of SSM does not exceed 5 days for collection systems and does not exceed 1 hour for treatment or control devices. You must comply with the provisions in Table 1 to subpart AAAA that apply before September 28, 2021.

(2) Once an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in § 63.1958(e)(1), the provisions of this subpart apply at all times, including periods of SSM. During periods of SSM, you must comply with the work practice requirement specified in § 63.1958(e) in lieu of the compliance provisions in § 63.1960.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64400, Oct. 13, 2020; 87 FR 8203, Feb. 14, 2022]

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1962]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Specifications for active collection systems.

(a) Each owner or operator seeking to comply with § 63.1959(b)(2)(i) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 63.1981(d)(2) and (3):

(1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.

(2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

**SECTION E. Source Group Restrictions.**

(3) The placement of gas collection devices determined in paragraph (a)(1) of this section must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.

(i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 63.1983(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and must be provided to the Administrator upon request.

(ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Administrator upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.

(A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7:

Where:

Q_i = NMOC emission rate from the i th section, Mg/yr.

k = Methane generation rate constant, year⁻¹.

L_o = Methane generation potential, m³/Mg solid waste.

M_i = Mass of the degradable solid waste in the i th section, Mg.

t_i = Age of the solid waste in the i th section, years.

CNMOC = Concentration of NMOC, ppmv.

3.6×10^{-9} = Conversion factor.

(B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in § 63.1959(c) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.

(iii) The values for k and CNMOC determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k , L_o and CNMOC provided in § 63.1959(a)(1) or the alternative values from § 63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii) must construct the gas collection devices using the following equipment or procedures:

(1) The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.

(2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

(3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) must convey the landfill gas to a control system in compliance with § 63.1959(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using

**SECTION E. Source Group Restrictions.**

the following procedures:

(1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with § 63.1960(a)(1).

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1964]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****How is compliance determined?**

§ 63.1964 How is compliance determined?

Compliance is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under § 63.1961(b)(1), (c)(1), and (d) are used to demonstrate compliance with the operating standards for control systems. If a deviation occurs, you have failed to meet the control device operating standards described in this subpart and have deviated from the requirements of this subpart.

(a) Before September 28, 2021, you must develop a written SSM plan according to the provisions in § 63.6(e)(3) of subpart A. A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.

(b) After September 27, 2021, the SSM provisions of § 63.6(e) of subpart A no longer apply to this subpart and the SSM plan developed under paragraph (a) of this section no longer applies. Compliance with the emissions standards and the operating standards of § 63.1958 of this subpart is required at all times.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1975]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****How do I calculate the 3-hour block average used to demonstrate compliance?**

Before September 28, 2021, averages are calculated in the same way as they are calculated in § 60.758(b)(2)(i) of this subchapter for average combustion temperature and § 60.758(c) for 3-hour average combustion temperature for enclosed combustors, except that the data collected during the events listed in paragraphs (a) through (d) of this section are not to be included in any average computed under this subpart. Beginning no later than September 27, 2021, averages are calculated according to § 63.1983(b)(2)(i) for average combustion temperature and § 63.1983(c)(1)(i) for 3-hour average combustion temperature for enclosed combustors, except that the data collected during the event listed in paragraph (a) of this section are not to be included in any average computed under this subpart.

(a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.

(b) Startups.

(c) Shutdowns.

(d) Malfunctions.

[85 FR 17261, Mar. 26, 2020, as amended at 87 FR 8204, Feb. 14, 2022]

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1961]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****Monitoring of operations.**

Except as provided in § 63.1981(d)(2):

**SECTION E. Source Group Restrictions.**

(a) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 63.1960(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by § 63.1981(d)(2).

(ii) Unless an alternative test method is established as allowed by § 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10- and 12-percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required; and

(E) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14).

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), the owner or operator must follow the procedures as specified in § 60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in § 63.1983(e).

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or 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, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

(i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;

(iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.

(iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.

(v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(vi) Monitor and determine carbon monoxide concentrations, as follows:

(A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.

(C) When sampling directly from the wellhead, you must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead.

(D) When collecting samples in a passivated canister or multi-layer foil sampling bag, you must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five

(5) consecutive, 1-minute averages are then averaged together to give you a carbon monoxide value from the wellhead.

**SECTION E. Source Group Restrictions.**

(vi) The enhanced monitoring described in this paragraph (a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and

(vii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.

(ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).

(6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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; and

(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 § 63.1959(b)(2)(iii) 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 § 63.1981(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 § 63.1962 or seeking to monitor alternative parameters to those required by §§ 63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in § 63.1981(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.

(f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in § 63.1958(d) must monitor surface concentrations of methane according to the procedures in § 63.1960(c) and the instrument specifications in § 63.1960(d). If you are complying with the 500-ppm surface methane operational standard in § 63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in § 63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. Any closed landfill that has no monitored exceedances of the operational

**SECTION E. Source Group Restrictions.**

standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 63.1983(b)(5)(ii). The owner or operator must:

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

(2) 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.

(h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020; 87 FR 8203 preview citation details, Feb. 14, 2022]

IV. RECORDKEEPING REQUIREMENTS.**# 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1983]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****What records must I keep?**

You 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, on-site 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. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in § 63.1981(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 § 63.1959(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in § 63.1960(a)(1).

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 63.1962(a)(1) and (2).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 63.1959(b)(2)(iii) 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 § 63.1959(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §

**SECTION E. Source Group Restrictions.**

63.1959(b)(2)(iii)(B)(1) 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 § 63.1959(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), 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 § 63.11; 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 § 63.1959(b)(2)(iii)(C) 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. Beginning no later than September 27, 2021, the owner or operator must prepare 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) List of responsible staff (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 monitoring systems (CMS).

(c) Except as provided in § 63.1981(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 § 63.1961 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 § 63.1981(h):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million Btu 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 § 63.1959(b)(2)(iii) 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 § 63.1961(b)(2)(ii), (c)(2)(ii), and (g)(2).

(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 § 63.1959(b)(2)(iii) 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 § 63.1961(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with § 63.1959(b)(2) using an active collection system designed in accordance with § 63.1959(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(6) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in § 63.1958(e)(1), the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.

(7) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in § 63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, record the information below in this paragraph:

(i) For each failure record the date, time and duration of each failure and the cause of such events (including unknown

**SECTION E. Source Group Restrictions.**

cause, if applicable).

(ii) For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment.

(iii) Record actions taken to minimize emissions in accordance with the general duty of § 63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(8) Beginning no later than September 27, 2021, in lieu of the requirements specified in § 63.8(d)(3) of subpart A you must keep the written procedures required by § 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2).

(d) Except as provided in § 63.1981(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 for each collector.

(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 § 63.1960(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 § 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 63.1962(a)(3)(ii).

(e) Except as provided in § 63.1981(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 following:

(1) All collection and control system exceedances of the operational standards in § 63.1958, 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 control provisions of this subpart must keep records of each wellhead temperature monitoring value of greater than 55 degrees Celsius (131 degrees Fahrenheit), each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent, except:

(i) When an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the compliance provisions for wellhead temperature in § 63.1958(c)(1), but no later than September 27, 2021, the records of each wellhead temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above instead of values greater than 55 degrees Celsius (131 degrees Fahrenheit).

(ii) Each owner or operator required to conduct the enhanced monitoring provisions in § 63.1961(a)(5), must also keep records of all enhanced monitoring activities.

(iii) Each owner or operator required to submit the 24-hour high temperature report in § 63.1981(k), must also keep a record of the email transmission.

(3) For any root cause analysis for which corrective actions are required in § 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the 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 § 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), 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 § 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), 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 Administrator.

(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 Mg or 2.5 million m³, 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) Except as provided in § 63.1981(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 all collection and control system monitoring data for parameters

**SECTION E. Source Group Restrictions.**

measured in § 63.1961(a)(1) through (6).

(h) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), you must keep the following records.

(1) Records of the landfill gas temperature on a monthly basis as monitored in § 63.1960(a)(4).

(2) Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as gathered in § 63.1961(a)(5) and (6).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(ii) [Reserved]

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020]

V. REPORTING REQUIREMENTS.**# 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1981]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****What reports must I submit?**

§ 63.1981 What reports must I submit?

You 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 re-submit 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.

(a) Initial design capacity report. The initial design capacity report must contain the information specified in § 60.757(a)(2) of this chapter, except beginning no later than September 28, 2021, the report must contain:

(1) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill.

(2) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either Mg or m3 for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million Mg or 2.5 million m3, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(b) Amended design capacity report. An amended design capacity report must be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million Mg and 2.5 million m3. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 63.1983(f).

(c) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit a copy of the latest NMOC emission rate report that was submitted according to § 60.757(b) of this chapter or submit an NMOC

**SECTION E. Source Group Restrictions.**

emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate. If you have submitted an annual report 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 annual NMOC emission rate report in this paragraph. You do not need to re-submit the annual report for the current year. Beginning no later than September 27, 2021, the report must meet the following requirements:

(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 § 63.1959(a) or (b), as applicable.

(i) The initial NMOC emission rate report must be submitted no later than 90 days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of this section.

(A) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 Mg/yr in each of the next 5 consecutive years, the owner or operator may elect to submit, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided 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.

(B) The report must be submitted following the procedure specified in paragraph (l)(2) of this section.

(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) 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 § 63.1959(b)(2), during such time as the collection and control system is in operation and in compliance with §§ 63.1958 and 63.1960.

(d) Collection and control system design plan. Each owner or operator subject to the provisions of § 63.1959(b)(2) must submit a collection and control system design plan to the Administrator for approval according to § 60.757(c) of this chapter and the schedule in § 60.757(c)(1) and (2). Beginning no later than September 27, 2021, each owner or operator subject to the provisions of § 63.1959(b)(2) must submit a collection and control system design plan to the Administrator according to paragraphs (d)(1) through (6) of this section. The collection and control system design plan must be prepared and approved by a professional engineer.

(1) The collection and control system as described in the design plan must meet the design requirements in § 63.1959(b)(2).

(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 §§ 63.1957 through 63.1983 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in § 63.1962 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 63.1962.

(4) Each owner or operator of an MSW landfill affected by this subpart must submit a collection and control system design plan to the Administrator for approval within 1 year of becoming subject to this subpart.

(5) 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 (d)(6) of this section. 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.

(6) 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.

**SECTION E. Source Group Restrictions.**

(e) Revised design plan. Beginning no later than September 27, 2021, the owner or operator who has already been required to submit a design plan under paragraph (d) of this section 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 waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of § 258.60 of this chapter. 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 § 63.9(b) of subpart A.

(g) Equipment removal report. Each owner or operator of a controlled landfill must submit an equipment removal report as provided in § 60.757(e) of this chapter. 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) Beginning no later than September 27, 2021, the equipment removal report must contain all of the following items:
 - (i) A copy of the closure report submitted in accordance with paragraph (f) of this section;
 - (ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, 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 Central Data Exchange (CDX); and
 - (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. 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 § 63.1957(b) have been met.

(h) Semi-annual report. The owner or operator of a landfill seeking to comply with § 63.1959(b)(2) using an active collection system designed in accordance with § 63.1959(b)(2)(ii) must submit to the Administrator semi-annual reports. Beginning no later than September 27, 2021, you must submit the report, following the procedure specified in paragraph (l) of this section. The initial report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under § 63.7 of subpart A, as applicable. In the initial 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. For enclosed combustion devices and flares, reportable exceedances are defined under § 63.1983(c). The semi-annual reports must contain the information in paragraphs (h)(1) through (8) of this section.

(1) Number of times that applicable parameters monitored under § 63.1958(b), (c), and (d) were exceeded and when the gas collection and control system was not operating under § 63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance.

(i) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under § 63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance.

(ii) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under § 63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance.

(iii) Beginning no later than September 27, 2021, number of times the parameters for the site-specific treatment system in § 63.1961(g) were exceeded.

(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 § 63.1961.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of

**SECTION E. Source Group Restrictions.**

time the control 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-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. Beginning no later than September 27, 2021, for location, you record the latitude and longitude coordinates of each exceedance 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 § 63.1960(a)(3) and (4), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in § 63.1960(a)(3)(i) or (a)(5) 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 high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(8) Each owner or operator required to conduct enhanced monitoring in §§ 63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period.

(i) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.

(ii) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.

(iii) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.

(i) Initial performance test report. Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) must include the following information with the initial performance test report required under § 63.7 of subpart A:

(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.

(j) Corrective action and the corresponding timeline. The owner or operator must submit information regarding corrective actions according to paragraphs (j)(1) and (2) of this section.

(1) For corrective action that is required according to § 63.1960(a)(3) or (4) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(2) For corrective action that is required according to § 63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above unless a higher operating temperature value has been approved by the Administrator for the well under this subpart or 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. The Administrator must approve the plan for corrective action and the corresponding timeline.

(k) 24-hour high temperature report. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, then you must report

**SECTION E. Source Group Restrictions.**

the date, time, well identifier, temperature and carbon monoxide reading via email to the Administrator within 24 hours of the measurement unless a higher operating temperature value has been approved by the Administrator for the well under this subpart or 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.

(l) Electronic reporting. Beginning no later than September 27, 2021, the owner or operator must submit reports electronically according to paragraphs (l)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (l)(1)(i) through (iii) of this section.

(i) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(ii) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(iii) Confidential business information (CBI). If you claim some of the information submitted under paragraph (a) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (l)(1)(i) of this section.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, semi-annual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the owner or operator must submit the reports to the Administrator at the appropriate address listed in § 63.13 of subpart A.

(m) Claims of EPA system outage. Beginning no later than September 27, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to comply timely with the reporting requirement. To assert a claim of EPA system outage, you must meet the following requirements:

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

**SECTION E. Source Group Restrictions.**

(n) Claims of force majeure. Beginning no later than September 27, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to comply timely with the reporting requirement. To assert a claim of force majeure, you must meet the following requirements:

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

- (i) A written description of the force majeure event;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
- (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[85 FR 17261, Mar. 26, 2020, as amended at 87 FR 8204, Feb. 14, 2022]

013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1982]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

What records and reports must I submit and keep for bioreactors or liquids addition other than leachate?

Submit reports as specified in this section and § 63.1981. Keep records as specified in this section and § 63.1983.

(a) For bioreactors at new affected sources you must submit the initial semi-annual compliance report and performance test results described in § 63.1981(h) within 180 days after the date you are required to begin operating the gas collection and control system by § 63.1947(a)(2).

(b) If you must submit a semi-annual compliance report for a bioreactor as well as a semi-annual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semi-annual compliance report for the bioreactor according to paragraphs (b)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semi-annual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semi-annual compliance report for the bioreactor until the date the initial or subsequent semi-annual compliance report is due for the conventional portion of your landfill.

(2) You may delay submittal of your subsequent semi-annual compliance report by no more than 12 months after the due date for submitting the initial semi-annual compliance report and performance test results described in § 63.1981(h) for the bioreactor. The report must cover the time period since the previous semi-annual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semi-annual report, all subsequent semi-annual reports for the bioreactor must be submitted every 6 months on the same date the semi-annual report for the conventional portion of the landfill is due.

(c) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in §§ 63.1947, 63.1955(b), and paragraphs (a) and (b) of this section, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(d) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under § 63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in

**SECTION E. Source Group Restrictions.**

paragraph (e) of this section for 5 years. Within 90 days after the bioreactor achieves 40-percent moisture content, report the results of the calculation, the date the bioreactor achieved 40-percent moisture content by weight, and the date you plan to begin collection and control system operation to the Administrator. Beginning no later than September 27, 2021, the reports should be submitted following the procedure specified in § 63.1981(l)(2).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 06

Group Description: 40 CFR Part 61 Subpart M

Sources included in this group

ID	Name
100	LANDFILL CLOSED (GAS COLLECTION SYSTEM)
102	LANDFILL PHASE 1 (GAS COLLECTION SYSTEM)
105	LANDFILL PHASE 2 (GAS COLLECTION SYSTEM)
106	LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A

I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

V. REPORTING REQUIREMENTS.**# 001 [40 CFR Part 61 NESHAPs §40 CFR 61.153]****Subpart M--National Emission Standard for Asbestos Reporting.**

(a) Any new source to which this subpart applies (with the exception of sources subject to §§61.143, 61.145, 61.146, and 61.148), which has an initial startup date preceding the effective date of this revision, shall provide the following information to the Administrator postmarked or delivered within 90 days of the effective date. In the case of a new source that does not have an initial startup date preceding the effective date, the information shall be provided, postmarked or delivered, within 90 days of the initial startup date. Any owner or operator of an existing source shall provide the following information to the Administrator within 90 days of the effective date of this subpart unless the owner or operator of the existing source has previously provided this information to the Administrator. Any changes in the information provided by any existing source shall be provided to the Administrator, postmarked or delivered, within 30 days after the change.

(1) A description of the emission control equipment used for each process; and

(i) If the fabric device uses a woven fabric, the airflow permeability in m³/min/m² and; if the fabric is synthetic, whether the fill yarn is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m², the minimum thickness in inches, and the airflow permeability in m³/min/m².

(2) If a fabric filter device is used to control emissions,

(i) The airflow permeability in m³/min/m² (ft³/min/ft²) if the fabric filter device uses a woven fabric, and, if the fabric is synthetic, whether the fill yarn is spun or not spun; and

(ii) If the fabric filter device uses a felted fabric, the density in g/m² (oz/yd²), the minimum thickness in millimeters (inches), and the airflow permeability in m³/min/m² (ft³/min/ft²).

(3) If a HEPA filter is used to control emissions, the certified efficiency.

(4) For sources subject to §§61.149 and 61.150:

(i) A brief description of each process that generates asbestos-containing waste material; and

(ii) The average volume of asbestos-containing waste material disposed of, measured in m³/day (yd³/day); and

(iii) The emission control methods used in all stages of waste disposal; and

(iv) The type of disposal site or incineration site used for ultimate disposal, the name of the site operator, and the name and location of the disposal site.

**SECTION E. Source Group Restrictions.**

(5) For sources subject to §§61.151 and 61.154:

- (i) A brief description of the site; and
- (ii) The method or methods used to comply with the standard, or alternative procedures to be used.

(b) The information required by paragraph (a) of this section must accompany the information required by §61.10. Active waste disposal sites subject to §61.154 shall also comply with this provision. Roadways, demolition and renovation, spraying, and insulating materials are exempted from the requirements of §61.10(a). The information described in this section must be reported using the format of appendix A of this part as a guide.

VI. WORK PRACTICE REQUIREMENTS.**# 002 [40 CFR Part 61 NESHAPs §40 CFR 61.151]****Subpart M--National Emission Standard for Asbestos****Standard for inactive waste disposal sites for asbestos mills and manufacturing and fabricating operations.**

Each owner or operator of any inactive waste disposal site that was operated by sources covered under §61.142, 61.144, or 61.147 and received deposits of asbestos-containing waste material generated by the sources, shall:

(a) Comply with one of the following:

- (1) Either discharge no visible emissions to the outside air from an inactive waste disposal site subject to this paragraph; or
- (2) Cover the asbestos-containing waste material with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, and grow and maintain a cover of vegetation on the area adequate to prevent exposure of the asbestos-containing waste material. In desert areas where vegetation would be difficult to maintain, at least 8 additional centimeters (3 inches) of well-graded, nonasbestos crushed rock may be placed on top of the final cover instead of vegetation and maintained to prevent emissions; or
- (3) Cover the asbestos-containing waste material with at least 60 centimeters (2 feet) of compacted nonasbestos-containing material, and maintain it to prevent exposure of the asbestos-containing waste; or
- (4) For inactive waste disposal sites for asbestos tailings, a resinous or petroleum-based dust suppression agent that effectively binds dust to control surface air emissions may be used instead of the methods in paragraphs (a) (1), (2), and (3) of this section. Use the agent in the manner and frequency recommended for the particular asbestos tailings by the manufacturer of the dust suppression agent to achieve and maintain dust control. Obtain prior written approval of the Administrator to use other equally effective dust suppression agents. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

(b) Unless a natural barrier adequately deters access by the general public, install and maintain warning signs and fencing as follows, or comply with paragraph (a)(2) or (a)(3) of this section.

- (1) Display warning signs at all entrances and at intervals of 100 m (328 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material was deposited. The warning signs must:
 - (i) Be posted in such a manner and location that a person can easily read the legend; and
 - (ii) Conform to the requirements for 51 cm × 36 cm (20 in × 14 in) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
 - (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend Notation

Asbestos Waste Disposal Site.....2.5 cm (1 inch) Sans Serif, Gothic or Block

Do Not Create Dust.....1.9 cm (3/4 inch) Sans Serif, Gothic or Block

Breathing Asbestos is Hazardous to.. 14 Point Gothic.

Your Health

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) Fence the perimeter of the site in a manner adequate to deter access by the general public.

(3) When requesting a determination on whether a natural barrier adequately deters public access, supply information enabling the Administrator to determine whether a fence or a natural barrier adequately deters access by the general public.

(c) The owner or operator may use an alternative control method that has received prior approval of the Administrator rather than comply with the requirements of paragraph (a) or (b) of this section.

**SECTION E. Source Group Restrictions.**

(d) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site under this section, and follow the procedures specified in the notification. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

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

(e) Within 60 days of a site becoming inactive and after the effective date of this subpart, record, in accordance with State law, a notation on the deed to the facility property and on any other instrument that would normally be examined during a title search; this notation will in perpetuity notify any potential purchaser of the property that:

- (1) The land has been used for the disposal of asbestos-containing waste material;
- (2) The survey plot and record of the location and quantity of asbestos-containing waste disposed of within the disposal site required in §61.154(f) have been filed with the Administrator; and
- (3) The site is subject to 40 CFR part 61, subpart M.

003 [40 CFR Part 61 NESHAPs §40 CFR 61.154]

**Subpart M--National Emission Standard for Asbestos
Standard for active waste disposal sites.**

To the extent that the permittee receives asbestos-containing waste material from a source covered under 61.149, 61.150, or 61.155, the permittee shall meet the requirements of this section:

(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.

(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.

(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:

- (i) Be posted in such a manner and location that a person can easily read the legend; and
- (ii) Conform to the requirements of 51 cm 36 cm (20"X14") upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
- (iii) Display the following legend in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph.

Legend Notation

Asbestos Waste Disposal Site.....2.5 cm (1 inch) Sans Serif, Gothic or Block

Do Not Create Dust.....1.9 cm (3/4 inch) Sans Serif, Gothic or Block

Breathing Asbestos is Hazardous to.. 14 Point Gothic.

Your Health

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.

(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.

(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

- (1) Be covered with at least 15 centimeters (6 inches) of compacted non asbestos-containing material, or
- (2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust

**SECTION E. Source Group Restrictions.**

suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in 61.149(c)(2).

(e) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:

(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:

(i) The name, address, and telephone number of the waste generator.

(ii) The name, address, and telephone number of the transporter(s).

(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).

(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.

(v) The date of the receipt.

(2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

(3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.

(4) Retain a copy of all records and reports required by this paragraph for at least 2 years.

(f) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.

(g) Upon closure, comply with all the provisions of 61.151.

(h) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.

(i) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.

(j) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

(1) Scheduled starting and completion dates.

(2) Reason for disturbing the waste.

(3) Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.

(4) Location of any temporary storage site and the final disposal site.

**SECTION E. Source Group Restrictions.****VII. ADDITIONAL REQUIREMENTS.**

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION E. Source Group Restrictions.**

Group Name: 07

Group Description: Landfill Phase 3 (Gas Collection System)

Sources included in this group

ID	Name
106	LANDFILL PHASE 3 (GAS COLLECTION SYSTEM) PLAN APP 35-00014A
C103A	ENCLOSED FLARE 2 (6000 CFM)
C105A	ENCLOSED FLARE 3 (6000 CFM)
C110	FLARE - ENCLOSED (5000 CFM)

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.21]****General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

002 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall forecast, on an annual basis, both the potential and actual VOC emissions for the following year. Actual VOC emission estimates shall include current and scheduled collection system configurations for the forecast year. If the forecast indicates that the existing and scheduled landfill gas collection and control system is not sufficient to maintain emissions of VOC from the phase 2 below the threshold of 50 tons per year, additional collection and/or control shall be installed within six months of the forecast to ensure that the VOC emissions do not exceed the 50 tons per year emission limit.

003 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

No person may permit the emission into the outdoor atmosphere of particulate matter from this source at any time, in excess of 0.04 gr/dscf, pursuant to 25 Pa. Code § 123.13 (c)(1)(i).

004 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Pursuant to the Best Available control Technology provisions of 25 Pa. Code Section 127.12(a)(5) of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection the following requirements are hereby established for flare:

(a) The flare shall be operated to either reduce the non-methane organic compound (NMOC) emissions by 98% by weight or reduce the outlet concentration to less than 20 parts per million by volume, dry basis, reported as hexane at 3% oxygen.

(b) The flare shall be operated at all times with no visible flame shooting from the flare.

(c) The flue gas temperature shall be continuously measured and recorded.

(d) The flare shall be designed to operate at a minimum operating temperature of 1500 degrees Fahrenheit at a residence time of at least 0.3 seconds.

(e) Prior to the performance test, the flare shall be continuously monitored and operated at a minimum temperature of 1500 degrees Fahrenheit. After completion of the initial performance test, the flare shall be continuously monitored and operated at the minimum flare temperature achieved during the performance test, in which compliance with paragraph (a) above, was demonstrated.

(f) The enclosed ground flare shall be equipped with a manual pilot ignition system, which uses an auxiliary fuel,

**SECTION E. Source Group Restrictions.**

e.g., propane, natural gas. The pilot ignition system shall be designed and equipped to manually ignite the pilot after sensing that the engines are off line.

(g) The flare shall be operated with a flame present at all times. The flare shall be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During re-start or start-up, there shall be sufficient flow of auxiliary fuel to the burners such that unburnt landfill gases are not emitted to the atmosphere.

(h) The flare shall be designed for and operated with no visible emissions except for periods not to exceed a total of 5-minutes during any two consecutive hours.

005 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The facility is subject to all applicable requirements of 40 CFR Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants (NESHAPs): Municipal Solid Waste Landfills and shall comply with all applicable requirements of this Subpart.

006 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The average daily amount of municipal solid waste (MSW) disposal in the Phase II landfill site shall be not be more than 7,250 tons calculated on a standard quarter.

007 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The average daily amount of municipal solid waste (MSW) disposal in the Phase II landfill site shall be not be more than 7,250 tons calculated on a standard quarter.

The maximum daily volume of municipal solid waste (MSW) disposal in the Phase II landfill site shall be not be more than 7,500 tons calculated on a standard quarter.

The annual amount of municipal solid waste (MSW) disposal in the Phase II landfill site shall be not be more than 2,262,000 tons.

Control Device Efficiency Restriction(s).**# 008 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

The active gas collection system may not have a collection efficiency of less than 75.00% for Volatile Organic Compounds.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

III. MONITORING REQUIREMENTS.**# 009 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The permittee shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment when operating the enclosed flares:

(a) A temperature monitoring device equipped with a continuous recorder and having an accuracy of (+/-) 1 percent of the temperature being measured expressed in degrees Celsius or degrees Fahrenheit (+/-) 0.5°C or (+/-) 0.9°F, whichever is greater.

(b) A gas flow rate measuring device that provides a measurement of gas flow to or bypass of the control device. The permittee shall operate, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control

**SECTION E. Source Group Restrictions.**

device at least every 15 minutes

010 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

(a) The permittee shall routinely conduct inspections of the gas extraction and collection system associated with the solid waste disposal area to ensure that no leaks of landfill gas are occurring from the system.

(b) Any such leaks shall be immediately repaired.

011 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall, on a daily basis, determine the total amount of landfill gas generated by the landfill and the total amount of landfill gas combusted by the cogeneration plant and/or flares. The total volume of landfill gas generated shall be determined using the EPA Landfill Gas Emissions Model (2.0 or latest version) by inputting actual waste landfilling rates and actual landfill gas (NMOC) concentrations.

012 [40 CFR Part 63 NESHAAPS for Source Categories §40 CFR 63.1961]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
Monitoring of operations.**

Except as provided in § 63.1981(d)(2):

(a) Each owner or operator seeking to comply with § 63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:

(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in § 63.1960(a)(3); and

(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by § 63.1981(d)(2).

(ii) Unless an alternative test method is established as allowed by § 63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:

(A) The span must be set between 10- and 12-percent oxygen;

(B) A data recorder is not required;

(C) Only two calibration gases are required, a zero and span;

(D) A calibration error check is not required; and

(E) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.

(iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(A) The analyzer is calibrated; and

(B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see § 63.14).

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), the owner or operator must follow the procedures as specified in § 60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in § 63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in § 63.1983(e).

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or 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, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature

**SECTION E. Source Group Restrictions.**

greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:

- (i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.
- (ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;
- (iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.
- (iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.
- (v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.
- (vi) Monitor and determine carbon monoxide concentrations, as follows:
 - (A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or
 - (B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.
 - (C) When sampling directly from the wellhead, you must sample for 5 minutes plus twice the response time of the analyzer. These values must be recorded. The five 1-minute averages are then averaged to give you the carbon monoxide reading at the wellhead.
 - (D) When collecting samples in a passivated canister or multi-layer foil sampling bag, you must sample for the period of time needed to assure that enough sample is collected to provide five (5) consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. The five (5) consecutive, 1-minute averages are then averaged together to give you a carbon monoxide value from the wellhead.
- (vii) The enhanced monitoring described in this paragraph (a)(5) must begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and
- (viii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.
- (ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).
- (6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

(b) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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.

(c) Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) 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; and

(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

**SECTION E. Source Group Restrictions.**

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 § 63.1959(b)(2)(iii) 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 § 63.1981(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 § 63.1962 or seeking to monitor alternative parameters to those required by §§ 63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in § 63.1981(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.

(f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in § 63.1958(d) must monitor surface concentrations of methane according to the procedures in § 63.1960(c) and the instrument specifications in § 63.1960(d). If you are complying with the 500-ppm surface methane operational standard in § 63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in § 63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. 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 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with § 63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 63.1983(b)(5)(ii). The owner or operator must:

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

(2) 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.

(h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020; 87 FR 8203 preview citation details, Feb. 14, 2022]

IV. RECORDKEEPING REQUIREMENTS.**# 013 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

The operating temperature of the combustion system shall be continuously measured and recorded. The temperature shall be monitored and maintained at the minimum temperature achieved during the performance test in which compliance with the DRE requirement was demonstrated. The average combustion temperature shall be measured at least every 15 minutes and average over the same time period of the performance test

**SECTION E. Source Group Restrictions.****# 014 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

Temperatures shall be recorded whenever the flare is in operation. The recording charts shall be made available to the Department personnel upon request. These records shall be maintained for a period of time not less than five (5) years.

015 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall maintain records sufficient to demonstrate that the collection/capture efficiency of the landfill gas collection system is at least 75%.

016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1982]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
What records and reports must I submit and keep for bioreactors or liquids addition other than leachate?**

§ 63.1982 What records and reports must I submit and keep for bioreactors or liquids addition other than leachate?

Submit reports as specified in this section and § 63.1981. Keep records as specified in this section and § 63.1983.

(a) For bioreactors at new affected sources you must submit the initial semi-annual compliance report and performance test results described in § 63.1981(h) within 180 days after the date you are required to begin operating the gas collection and control system by § 63.1947(a)(2).

(b) If you must submit a semi-annual compliance report for a bioreactor as well as a semi-annual compliance report for a conventional portion of the same landfill, you may delay submittal of a subsequent semi-annual compliance report for the bioreactor according to paragraphs (b)(1) through (3) of this section so that the reports may be submitted on the same schedule.

(1) After submittal of your initial semi-annual compliance report and performance test results for the bioreactor, you may delay submittal of the subsequent semi-annual compliance report for the bioreactor until the date the initial or subsequent semi-annual compliance report is due for the conventional portion of your landfill.

(2) You may delay submittal of your subsequent semi-annual compliance report by no more than 12 months after the due date for submitting the initial semi-annual compliance report and performance test results described in § 63.1981(h) for the bioreactor. The report must cover the time period since the previous semi-annual report for the bioreactor, which would be a period of at least 6 months and no more than 12 months.

(3) After the delayed semi-annual report, all subsequent semi-annual reports for the bioreactor must be submitted every 6 months on the same date the semi-annual report for the conventional portion of the landfill is due.

(c) If you add any liquids other than leachate in a controlled fashion to the waste mass and do not comply with the bioreactor requirements in §§ 63.1947, 63.1955(b), and paragraphs (a) and (b) of this section, you must keep a record of calculations showing that the percent moisture by weight expected in the waste mass to which liquid is added is less than 40 percent. The calculation must consider the waste mass, moisture content of the incoming waste, mass of water added to the waste including leachate recirculation and other liquids addition and precipitation, and the mass of water removed through leachate or other water losses. Moisture level sampling or mass balances calculations can be used. You must document the calculations and the basis of any assumptions. Keep the record of the calculations until you cease liquids addition.

(d) If you calculate moisture content to establish the date your bioreactor is required to begin operating the collection and control system under § 63.1947(a)(2) or (c)(2), keep a record of the calculations including the information specified in paragraph (e) of this section for 5 years. Within 90 days after the bioreactor achieves 40-percent moisture content, report the results of the calculation, the date the bioreactor achieved 40-percent moisture content by weight, and the date you plan to begin collection and control system operation to the Administrator. Beginning no later than September 27, 2021, the reports should be submitted following the procedure specified in § 63.1981(l)(2).

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1983]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
What records must I keep?**

§ 63.1983 What records must I keep?

You 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.

**SECTION E. Source Group Restrictions.**

(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, on-site 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. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in § 63.1981(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 § 63.1959(b)(2)(ii):

(i) The maximum expected gas generation flow rate as calculated in § 63.1960(a)(1).

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 63.1962(a)(1) and (2).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 63.1959(b)(2)(iii) 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 § 63.1959(b)(2)(iii)(B) achieved by the control device.

(3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 63.1959(b)(2)(iii)(B)(1) 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 § 63.1959(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), 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 § 63.11; 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 § 63.1959(b)(2)(iii)(C) 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. Beginning no later than September 27, 2021, the owner or operator must prepare 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) List of responsible staff (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 monitoring systems (CMS).

(c) Except as provided in § 63.1981(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 § 63.1961 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 § 63.1981(h):

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million Btu 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 § 63.1959(b)(2)(iii) was determined.

**SECTION E. Source Group Restrictions.**

(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 § 63.1961(b)(2)(ii), (c)(2)(ii), and (g)(2).

(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 § 63.1959(b)(2)(iii) 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 § 63.1961(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.

(5) Each owner or operator of a landfill seeking to comply with § 63.1959(b)(2) using an active collection system designed in accordance with § 63.1959(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

(6) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in § 63.1958(e)(1), the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.

(7) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in § 63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, record the information below in this paragraph:

(i) For each failure record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable).

(ii) For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment.

(iii) Record actions taken to minimize emissions in accordance with the general duty of § 63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(8) Beginning no later than September 27, 2021, in lieu of the requirements specified in § 63.8(d)(3) of subpart A you must keep the written procedures required by § 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2).

(d) Except as provided in § 63.1981(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 for each collector.

(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 § 63.1960(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 § 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in § 63.1962(a)(3)(ii).

(e) Except as provided in § 63.1981(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 following:

(1) All collection and control system exceedances of the operational standards in § 63.1958, 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 control provisions of this subpart must keep records of each wellhead temperature monitoring value of greater than 55 degrees Celsius (131 degrees Fahrenheit), each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent, except:

(i) When an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the compliance provisions for wellhead temperature in § 63.1958(c)(1), but no later than September 27, 2021, the records of each wellhead temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above instead of values greater than 55 degrees Celsius (131 degrees Fahrenheit).

(ii) Each owner or operator required to conduct the enhanced monitoring provisions in § 63.1961(a)(5), must also keep records of all enhanced monitoring activities.

**SECTION E. Source Group Restrictions.**

(iii) Each owner or operator required to submit the 24-hour high temperature report in § 63.1981(k), must also keep a record of the email transmission.

(3) For any root cause analysis for which corrective actions are required in § 63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the 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 § 63.1960(a)(3)(i)(B) or (a)(4)(i)(B), 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 § 63.1960(a)(3)(i)(C) or (a)(4)(i)(C), 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 Administrator.

(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 Mg or 2.5 million m³, 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) Except as provided in § 63.1981(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 all collection and control system monitoring data for parameters measured in § 63.1961(a)(1) through (5).

(h) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), you must keep the following records.

(1) Records of the landfill gas temperature on a monthly basis as monitored in § 63.1960(a)(4).

(2) Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as gathered in § 63.1961(a)(5) and (6).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

(ii) [Reserved]

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020]

V. REPORTING REQUIREMENTS.**# 018 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

1. On a quarterly basis, the owner/operator shall report the following for the preceding 3-month period:

- a. Average collected landfill gas flow rate in cfm by month and calculated collection efficiency for each quarter;
- b. Average quality of collected landfill gas by month including percent methane, percent carbon dioxide, percent oxygen and percent balance gas;
- c. Predicted average landfill gas generation rate for the current year as calculated by the latest run of a landfill gas prediction model;
- d. Data from quarterly surface emission monitoring in a summary spreadsheet

019 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The landfill gas collection and control system will:

**SECTION E. Source Group Restrictions.**

- (a) Be designed to handle, over the intended use period of the gas control or treatment system equipment, the maximum expected gas flow rate from the entire landfill area that warrants control;
- (b) Collect gas at a sufficient extraction rate (a rate sufficient to maintain a negative pressure at all well heads in the collection system without causing air infiltration, including any well heads connected to the system as a result of expansion or excess surface emissions, for the life of the blower); and,
- (c) Be designed to minimize off-site migration of subsurface gas.

020 [25 Pa. Code §127.511]**Monitoring and related recordkeeping and reporting requirements.**

The permittee shall, on a quarterly basis, submit a report demonstrating that the collection/capture efficiency of the landfill gas collection system was in compliance during the preceding three (3) months. This report shall be submitted to the Department within thirty (30) days of the close of the quarter.

021 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1981]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****What reports must I submit?****§ 63.1981 What reports must I submit?**

You 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 re-submit 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.

(a) Initial design capacity report. The initial design capacity report must contain the information specified in § 60.757(a)(2) of this chapter, except beginning no later than September 28, 2021, the report must contain:

(1) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill.

(2) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either Mg or m³ for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million Mg or 2.5 million m³, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.

(b) Amended design capacity report. An amended design capacity report must be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million Mg and 2.5 million m³. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in § 63.1983(f).

(c) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit a copy of the latest NMOC emission rate report that was submitted according to § 60.757(b) of this chapter or submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of

**SECTION E. Source Group Restrictions.**

this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate. If you have submitted an annual report 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 annual NMOC emission rate report in this paragraph. You do not need to re-submit the annual report for the current year. Beginning no later than September 27, 2021, the report must meet the following requirements:

(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 § 63.1959(a) or (b), as applicable.

(i) The initial NMOC emission rate report must be submitted no later than 90 days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.

(ii) Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of this section.

(A) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 Mg/yr in each of the next 5 consecutive years, the owner or operator may elect to submit, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided 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.

(B) The report must be submitted following the procedure specified in paragraph (l)(2) of this section.

(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) 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 § 63.1959(b)(2), during such time as the collection and control system is in operation and in compliance with §§ 63.1958 and 63.1960.

(d) Collection and control system design plan. Each owner or operator subject to the provisions of § 63.1959(b)(2) must submit a collection and control system design plan to the Administrator for approval according to § 60.757(c) of this chapter and the schedule in § 60.757(c)(1) and (2). Beginning no later than September 27, 2021, each owner or operator subject to the provisions of § 63.1959(b)(2) must submit a collection and control system design plan to the Administrator according to paragraphs (d)(1) through (6) of this section. The collection and control system design plan must be prepared and approved by a professional engineer.

(1) The collection and control system as described in the design plan must meet the design requirements in § 63.1959(b)(2).

(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 §§ 63.1957 through 63.1983 proposed by the owner or operator.

(3) The collection and control system design plan must either conform with specifications for active collection systems in § 63.1962 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to § 63.1962.

(4) Each owner or operator of an MSW landfill affected by this subpart must submit a collection and control system design plan to the Administrator for approval within 1 year of becoming subject to this subpart.

(5) 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 (d)(6) of this section. 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.

(6) 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.

**SECTION E. Source Group Restrictions.**

(e) Revised design plan. Beginning no later than September 27, 2021, the owner or operator who has already been required to submit a design plan under paragraph (d) of this section 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 waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of § 258.60 of this chapter. 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 § 63.9(b) of subpart A.

(g) Equipment removal report. Each owner or operator of a controlled landfill must submit an equipment removal report as provided in § 60.757(e) of this chapter. 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) Beginning no later than September 27, 2021, the equipment removal report must contain all of the following items:
 - (i) A copy of the closure report submitted in accordance with paragraph (f) of this section;
 - (ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, 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 Central Data Exchange (CDX); and
 - (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. 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 § 63.1957(b) have been met.

(h) Semi-annual report. The owner or operator of a landfill seeking to comply with § 63.1959(b)(2) using an active collection system designed in accordance with § 63.1959(b)(2)(ii) must submit to the Administrator semi-annual reports. Beginning no later than September 27, 2021, you must submit the report, following the procedure specified in paragraph (l) of this section. The initial report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under § 63.7 of subpart A, as applicable. In the initial 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. For enclosed combustion devices and flares, reportable exceedances are defined under § 63.1983(c). The semi-annual reports must contain the information in paragraphs (h)(1) through (8) of this section.

(1) Number of times that applicable parameters monitored under § 63.1958(b), (c), and (d) were exceeded and when the gas collection and control system was not operating under § 63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance.

(i) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph § 63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under § 63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance.

(ii) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under § 63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance.

(iii) Beginning no later than September 27, 2021, number of times the parameters for the site-specific treatment system in § 63.1961(g) were exceeded.

(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 § 63.1961.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of

**SECTION E. Source Group Restrictions.**

time the control 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-ppm methane concentration as provided in § 63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. Beginning no later than September 27, 2021, for location, you record the latitude and longitude coordinates of each exceedance 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 § 63.1960(a)(3) and (4), (b), and (c)(4).

(7) For any corrective action analysis for which corrective actions are required in § 63.1960(a)(3)(i) or (a)(5) 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 high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(8) Each owner or operator required to conduct enhanced monitoring in §§ 63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period.

(i) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.

(ii) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.

(iii) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.

(i) Initial performance test report. Each owner or operator seeking to comply with § 63.1959(b)(2)(iii) must include the following information with the initial performance test report required under § 63.7 of subpart A:

(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.

(j) Corrective action and the corresponding timeline. The owner or operator must submit information regarding corrective actions according to paragraphs (j)(1) and (2) of this section.

(1) For corrective action that is required according to § 63.1960(a)(3) or (4) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

(2) For corrective action that is required according to § 63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above. The Administrator must approve the plan for corrective action and the corresponding timeline.

(k) 24-hour high temperature report. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in § 63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, then you must report the date, time, well identifier, temperature and carbon monoxide reading via email to the Administrator within 24 hours of the measurement unless a higher operating temperature value has been approved by the Administrator for the well under this subpart or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and

**SECTION E. Source Group Restrictions.**

effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf.

(l) Electronic reporting. Beginning no later than September 27, 2021, the owner or operator must submit reports electronically according to paragraphs (l)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (l)(1)(i) through (iii) of this section.

(i) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(ii) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(iii) Confidential business information (CBI). If you claim some of the information submitted under paragraph (a) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (l)(1)(i) of this section.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, semi-annual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the owner or operator must submit the reports to the Administrator at the appropriate address listed in § 63.13 of subpart A.

(m) Claims of EPA system outage. Beginning no later than September 27, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to comply timely with the reporting requirement. To assert a claim of EPA system outage, you must meet the following requirements:

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(n) Claims of force majeure. Beginning no later than September 2, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to comply timely with the reporting

**SECTION E. Source Group Restrictions.**

requirement. To assert a claim of force majeure, you must meet the following requirements:

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

- (i) A written description of the force majeure event;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
- (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[85 FR 17261, Mar. 26, 2020, as amended at 87 FR 8204, Feb. 14, 2022]

VI. WORK PRACTICE REQUIREMENTS.**# 022 [25 Pa. Code §127.512]****Operating permit terms and conditions.**

1. Open storage (ponding or open top tanks) of leachate and/or condensate shall not be permitted.
2. Uncontrolled stripping of VOC from the leachate and/or condensate shall not be permitted

023 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall measure the landfill gas collected by the collection system in order to compare with the landfill gas generation predicated by the latest landfill model & for calculating the collection efficiency quarterly

024 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The owner/operator shall forecast, on an annual basis, the landfill gas generation and collection for the following year. If the forecast indicates that the existing flare (s) is not sufficient to incinerate the collected gases, additional approved flare(s) shall be installed and operated within six months of the forecast to ensure that the 100 % of the collected gases are incinerated and/or destructed by other methods approved by the Department.

025 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

Within 30 minutes of start up of the combustion system, the combustion systems must achieve combustion temperature of at least a minimum temperature achieved during the performance test in which compliance with the DRE requirement was demonstrated

026 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

The active collection systems must meet the following:

- (a) Demonstrate that the siting of active collection wells, horizontal collectors, surface collectors, or other extraction devices is of sufficient density throughout all gas producing areas.

**SECTION E. Source Group Restrictions.**

(b) Devices located within the interior and along the perimeter must be certified by a professional engineer to achieve uniform control of surface gas emissions.

(c) Design plans must address the following issues: Depth(s) of refuse; Refuse gas generation rates and flow characteristic; Cover properties Gas system expandability; Leachate and condensate management; Accessibility; Compatibility with filling operations; Integration with closure end use; Air intrusion control; Corrosion resistance; Fill settlement; Resistance to the refuse decomposition heat; Topographical map of the surface area and proposed surface monitoring route.

(d) Collection system siting should be of sufficient density to address landfill gas migration issues and augmentation of the system through the use of active or passive systems at the perimeter or exterior.

(e) The system should control all gas producing areas except those that are excluded because either (1) they are segregated and shown to contain asbestos or non-degradable material, (documentation must include nature, location, amount of asbestos or non-degradable material deposited, and date of deposition) or (2) they are nonproductive areas and can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill (amount, location, and age of the material must be documented).

(f) The gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion-resistant material.

(g) The extraction components must be of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads.

(h) The collection system must be capable of any expansion needed to comply with emission and migration standards.

(i) Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated to prevent excessive air infiltration.

(j) Vertical wells cannot endanger underlying liners and must address the occurrence of water within the landfill.

(k) Holes and trenches must be of sufficient cross-section for proper construction and completion. For example: the design should call for the centering of pipes and allow for the placement of gravel backfill.

(l) Collection devices must be constructed of PVC, HDPE pipe, fiberglass, stainless steel, or other nonporous corrosion-resistant material and must not allow for air intrusion into the cover, refuse into the collection system, or landfill gas into the atmosphere.

(m) Any gravel used around the pipe perforations should be large enough to prevent penetration or blockage of the perforations.

(n) The connections for collection devices may be above or below ground, but must include: a positive closing throttle valve, necessary seals and couplings, access couplings, and at least one sampling port.

(o) The system must convey the landfill gas to a control system through the collection header pipe

(p) The maximum flow rate must be determined by existing flow data, or by alternative landfill gas estimation model preapproved by PADEP, or by using the following equation:

$$QM = \sum_{i=1}^n k L_o M_i (e^{k t_i})$$

i=1

where,

QM = maximum expected gas generation flow rate, m³/yr

k = methane generation rate constant, year⁻¹

L_o = methane generation potential, m³/Mg solid waste

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

t_i = age of the ith section, years

**SECTION E. Source Group Restrictions.**

(s) The gas mover equipment must be of a size capable of handling the maximum gas generation flow rate expected over the intended use period of the equipment.

027 [25 Pa. Code §127.512]**Operating permit terms and conditions.**

- (a) In order to prevent offsite migration of landfill gas, the gas collection system shall be designed to collect gas from the maximum possible area of the landfill and to accommodate the maximum gas generation rate of the landfill.
- (b) The collection system shall be operated and maintained to ensure that the gas collection rate is no less than the gas generation rate. In order to assure compliance with this requirement, no positive pressure shall be measurable at the wells. Each well shall be equipped with a throttling valve to enable adjustment of the gas collection rate, if necessary.
- (c) There shall be no landfill gas leaks which result in concentrations of 500 ppmv or more measured as propane (or 1375 ppmv or more measured as methane) at a distance of 0.5 inches from any equipment which includes gas wells, piping or any other connections or fittings along the landfill gas transfer paths of a landfill gas collection system, energy recovery, gas purification and/or any other disposal system. Non repeatable and momentary readings shall not be considered.

028 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1955]**Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills****What requirements must I meet?**

- (a) During a period of startup, shutdown, or malfunction, the general duty to minimize emissions requires that the owner or operator reduce emissions from the affected source to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved.
- (b) Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan pursuant to 40 C.F.R. Sec. 63.6(e)(3). To the extent that an unexpected event arises during a startup, shutdown, or malfunction, an owner or operator must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

***** Permit Shield in Effect. *****

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Title V facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.

**SECTION H. Miscellaneous.**

(a) The Department received the operating permit application for this facility on 12/08/2025. The facility is required to pay an Annual Operating Permit Maintenance Fee in accordance with Pennsylvania Code, Title 25, Chapter 127, Section 127.704(d). The Annual Maintenance Fee is due on or before December 31 of each year for the next calendar year.

(b) This permit is a renewal of Operating Permit No. 35-00014.

(c) This is a Title V Operating Permit facility.

(d) Plan Approvals include:

35-302-116 issued 11/15/2005
35-322-009 issued 06/14/2007
35-322-012 issued 07/01/2013
35-322-013 issued 06/24/2013
35-00014A issued 01/03/2022

(e) Requests for Determination (RFDs) include:

35-0639, 35-0657, 35-0665, 35-0668, 35-0672, 35-0675, 35-0679, 35-0680, 35-0686, 35-0703, 35-0719, 35-0728, 35-0735, 35-0744, 35-0747, 35-0771, 35-0780, 35-0799, 35-0802

(f) General Permits include:

GP3-35-027 / GP9-35-027
GP3-35-029 / GP9-35-029
GP3-35-035 / GP9-35-034
GP3-35-040 / GP11-35-029

-The permittee shall comply with all applicable General Permit (GP) requirements.

[NOTE: Source ID 101 Cogen removed from permit, previously permitted under TV-35-00024. Permanently ceased operation as of 6/1/2020]

[NOTE: Source ID 023 and Control Device ID C023 removed from permit. Decision to cease operation of equipment per email dated 9/23/2021]

Portable Processing Operation (GP3-35-027)	IC Engines (GP9-35-027)
McCloskey R155 Screener (1), 600 TPH	CAT C4.4 (1), 98 kW / 131 BHP
McCloskey 36" x 80' ST80T Stacker (1), 800 TPH	CAT C2.2 (1), 36 kW / 48.8 BHP (Exempt)

Processing Operation (GP3-35-029)	IC Engines (GP9-35-029)
McCloskey R155 Screener (1), 600 TPH	CAT C4.4 (1), 98 kW / 131 BHP

Portable Processing Operation (GP3-35-035)	IC Engines (GP9-35-034)
McCloskey R155 Screeners (2), 600 TPH	CAT C4.4 (2), 98 kW / 131 BHP
McCloskey 36" x 80' ST80T Stacker (1), 800 TPH	CAT C2.2 (1), 36 kW / 48.8 BHP (Exempt)

Metso - Lokotrack LT106, 440 TPH	CAT C7.1, 225 kW / 302 BHP
----------------------------------	----------------------------

Portable Crushing Plant (GP3-35-040)
Peterson 6700B Processing Plant, 170 tons/hr
Peterson Crusher
Peterson 4-deck screen
Two (2) Peterson conveyors

CAT 3412 Engine - Rated capacity 1,000 BHP (GP11-35-029)

NSPS Subpart IIII applies to stationary compression ignition (CI) internal combustion engines (ICE). The portable processing equipment engines are subject to NSPS Subpart IIII based on the engine model year, their status as compression ignition engines, and their rated horsepower. CI engines typically fire fuel oil or diesel. Some of the above engines are subject to this NSPS:

**SECTION H. Miscellaneous.**

A listing of all changes in chronological order (additions and subtractions) made at the facility since the last submittal include the following:

- October 12, 2021 – Request for Determination (RFD) application submitted to the PADEP for proposed modifications (adding reverse osmosis (RO) chiller system) to the existing leachate treatment plant (LTP).
- February 11, 2022 – General Permit (GP-3/GP-9) applications were submitted to the PADEP for the operation of portable processing equipment and associated diesel-fired engine(s) (submitted under PADEP OnBase ID 45400 and 45402, respectively). General Permit Nos. GP3-35-027 and GP9-35-027 were issued by the PADEP on February 28, 2022.
- April 12, 2022 – RFD application submitted to the PADEP for proposed modifications (adding third RO system) to the existing LTP. On April 15, 2022, the PADEP determined that a plan approval was not required for the proposed modifications to the existing LTP.
- June 16, 2022 – General Permit (GP-3/GP-9) applications were submitted to the PADEP for the operation of portable processing equipment and associated diesel-fired engine(s) (submitted under PADEP OnBase ID 60403 and 60407, respectively). General Permit Nos. GP3-35-029 and GP9-35-029 were issued by the PADEP on June 29, 2022.
- November 22, 2022 – RFD No. 9905 application submitted to the PADEP for the temporary operation of a portable GENSET while an existing generator was rebuilt. On November 22, 2022, the PADEP determined that a plan approval was not required for the temporary GENSET operation.
- August 23, 2023 – RFD application submitted to the PADEP for proposed modifications (adding third reverse osmosis (RO) system) to the existing LTP. On April 15, 2022, the PADEP determined that a plan approval was not required for the proposed modifications to the existing LTP.
- August 23, 2023 – RFD No. 10324 application submitted to the PADEP for the like-for-like replacement of two (2) McCloskey R155 Vibratory Screening Plants, one (1) McCloskey ST80T Stacking Conveyor (stacker), and associated engines. On September 21, 2023, the PADEP determined that general permits were needed to permit the like-for-like replacement.
- December 15, 2023 – General Permit (GP-3/GP-9) applications were submitted to the PADEP for the operation of portable processing equipment and associated diesel-fired engine(s) (submitted under PADEP OnBase ID 100025). General Permit Nos. GP3-35-035 and GP9-35-034 were issued by the PADEP on December 27, 2023.
- April 29, 2024 – RFD No. 10686 application submitted to the PADEP for proposed modifications (adding two (2) aboveground storage tanks (ASTs) for leachate storage) to the existing LTP. On June 12, 2024, the PADEP determined that a plan approval was not required for the proposed modifications to the existing LTP.
- May 31, 2024 – RFD No. 10727 application submitted to the PADEP for proposed modifications (adding fourth RO system) to the existing LTP. On June 12, 2024, the PADEP determined that a plan approval was not required for the proposed modifications to the existing LTP.
- June 21, 2024 – Request for Administrative Amendment for the conditions of Plan Approval No. 35-00014A be incorporated into the TVOP (submitted under PADEP OnBase ID 241192).
- June 23, 2025 – General Permit (GP-3/GP-11) applications were submitted to the PADEP for the operation of portable crushing equipment and associated diesel-fired engine (submitted under PADEP OnBase ID 325892). General Permit Nos. GP3-35-039 and GP11-35-028 were issued by the PADEP on June 30, 2025.
- August 27, 2025 – RFD No. 11279 application submitted to the PADEP for the installation of an air odor scrubber at the LTP Building. On September 23, 2025, the PADEP determined that a plan approval was not required for the installation of an air odor scrubber at the LTP Building.

December 12, 2025 - RFD No. 11400 application submitted to the PADEP for the installation of two (2) air media scrubber systems to control emissions and odors from the existing main wet well and proposed wet well to be located near the east lagoon. On February 4, 2026, the PADEP determined that a plan approval was not required for the proposed air media scrubber systems.

December 15, 2025 - General Permit (GP-3/GP-11) applications were submitted to the PADEP for the operation of portable processing equipment and associated diesel-fired engine(s) (submitted under PADEP OnBase ID 367721).

**SECTION H. Miscellaneous.**

General Permit Nos. GP3-35-040 and GP11-35-029 were issued by the PADEP on January 7, 2026.

April 16, 2026 - RFD No. 11421 application submitted to the PADEP for authorization to utilize various odor neutralizing agents. On April 23, 2026, the PADEP determined that a plan approval was not required for authorization to utilize various odor neutralizing agents.

Keystone completed the Department's RACT III template summarizing the applicable RACT requirements for each of the sources listed in the current TVOP. The Landfill will meet the RACT III requirements by complying with presumptive RACT limitations. The facility complies by operating its flares and gas collection and control system (GCCS) in accordance with manufacturer's specifications and good operating practices (see 25 Pa. Code §129.112 (c)(8)), as well as by complying with applicable federal and state municipal solid waste (MSW) landfill air quality regulations, namely NESHAP Subpart AAAA.

The emergency engines/gensets at the Landfill are operated and maintained in accordance with the manufacturer's specifications and with good operating practices. The Landfill will continue to meet these presumptive RACT requirements as part of the normal landfill operations.



***** End of Report *****
