



**COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AIR QUALITY PROGRAM**

**TITLE V/STATE OPERATING PERMIT**

Issue Date: November 28, 2023

Effective Date: November 28, 2023

Expiration Date: October 31, 2028

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: 42-00174**

Federal Tax Id - Plant Code: 23-2876596-1

**Owner Information**

Name: CASELLA WASTE MGMT OF PA INC

Mailing Address: 19 NESS LN  
KANE, PA 16735-5335

**Plant Information**

Plant: CASELLA WASTE MGMT OF PA INC/MCKEAN CNTY LDFL

Location: 42 McKean County 42920 Sergeant Township

SIC Code: 4953 Trans. &amp; Utilities - Refuse Systems

**Responsible Official**

Name: LARRY B SHILLING

Title: REGIONAL VICE PRESIDENT

Phone: (716) 560 - 7915

Email: Larry.Shilling@casella.com

**Permit Contact Person**

Name: TIM OKNEFSKI

Title: ENVIRONMENTAL MANAGER

Phone: (814) 778 - 9931

Email: tim.oknefski@casella.com

[Signature] \_\_\_\_\_

ERIC A. GUSTAFSON, NORTHWEST 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 Recordkeeping Requirements
- #025 Reporting Requirements
- #026 Compliance Certification
- #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
- D-VI: Work Practice Standards



## SECTION A. Table of Contents

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)

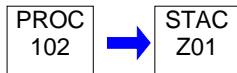
- F-I: Restrictions
- F-II: Testing Requirements
- F-III: Monitoring Requirements
- F-IV: Recordkeeping Requirements
- F-V: Reporting Requirements
- F-VI: Work Practice Standards
- F-VII: Additional Requirements

### Section G. Emission Restriction Summary

### Section H. Miscellaneous

**SECTION A. Site Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	LANDFILL	123.000 MCF/HR	LFG
102	LEACHATE TREATMENT PLANT (30,000 GPD)	1,250.000 Gal/HR	
C101B	ENCLOSED FLARE (1,500 CFM)		
S101B	ENCLOSED FLARE STACK		
Z01	FUGITIVE EMISSIONS		

**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 act.

**#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 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.

**SECTION B. General Title V Requirements****#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.

**#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

**SECTION B. General Title V Requirements**

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.

**#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

**SECTION B. General Title V Requirements**

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.

**#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:



**SECTION B. General Title V Requirements**

(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<sub>x</sub> from a single source during the term of the permit and 5 tons of NO<sub>x</sub> 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 oxides of sulfur at the facility during the term of the permit.

(4) Six-tenths of a ton of PM<sub>10</sub> from a single source during the term of the permit and 3.0 tons of PM<sub>10</sub> 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

**SECTION B. General Title V Requirements**

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.

(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.

**SECTION B. General Title V Requirements****#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 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 §§ 127.511 & 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.

**#025 [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.

**SECTION B. General Title V Requirements****#026 [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.

**#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:

- (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

**SECTION B. General Title V Requirements**

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.

(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.

**SECTION B. General Title V Requirements****#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) - (8) [Not applicable]

(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.

(b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.

(c) See work practice standard.

(d) The requirements contained in subsection (a) and 123.2 do not apply to fugitive emissions arising from the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.

**# 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 Condition #001, above, 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**

The permittee 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.

**SECTION C. Site Level Requirements****# 005 [25 Pa. Code §123.42]****Exceptions**

The limitations of 25 PA Code 123.41 (relating to limitations) and Condition #004, above, 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 25 PA Code 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions).

**# 006 [25 Pa. Code §129.14]****Open burning operations**

- (a) [Not applicable]
- (b) No person may permit the open burning of material in an area outside of air basins in a manner that:
  - (1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.
  - (2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.
  - (3) The emissions interfere with the reasonable enjoyment of life or property.
  - (4) The emissions cause damage to vegetation or property.
  - (5) The emissions are or may be deleterious to human or animal health.
- (c) 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) - (5) [Not applicable]
  - (6) A fire set solely for recreational or ceremonial purposes.
  - (7) A fire set solely for cooking food.
- (d) 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) [Not applicable]
  - (3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:



**SECTION C. Site Level Requirements**

(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.

[This permit does not constitute authorization to burn solid waste pursuant to Section 610(3) of the Solid Waste Management Act, 35 P.S. Section 6018.610(3), or any other provision of the Solid Waste Management Act. ]

**# 007 [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?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**II. TESTING REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

The Department reserves the right to require exhaust stack testing of any source(s) as necessary to verify emissions for purposes including determining the correct emission fee, malfunctions, or determining compliance with any applicable requirement.

**III. MONITORING REQUIREMENTS.**

**# 009 [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.

**# 010 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

a) The permittee shall conduct daily monitoring of the facility property, while the facility is operating, to observe for the presence of fugitive emissions crossing the property line and visible emissions being emitted into the outdoor atmosphere. The visible emission monitoring is merely for the observation of visible emissions not the quantification of visible emissions as described in Condition #009, above.

b) All detected fugitive emissions crossing the property line and visible emissions shall be reported to the Site Supervisor, Manager or Engineer.

**# 011 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 012 [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?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**SECTION C. Site Level Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 013 [25 Pa. Code §127.511]****Monitoring and related recordkeeping and reporting requirements.**

- a) The permittee shall maintain a record of the daily monitoring conducted to determine the presence of fugitive emissions crossing the property line and visible emissions.
- b) This recordkeeping shall contain a listing or notation of any and all sources of fugitive emissions crossing the property line or visible emissions; the cause of the fugitive emissions or visible emissions; duration of the emission; and the corrective action taken to abate the deviation and prevent future occurrences.

**# 014 [25 Pa. Code §135.5]****Recordkeeping**

The permittee shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with 25 PA Code 135.3 and 135.21 (relating to reporting; and emission statements). These 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 informed by indirect means.

**# 015 [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?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**V. REPORTING REQUIREMENTS.****# 016 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

a) The 6-month deviation report, required under section B Condition #026, shall be submitted to the Department within 30-days of the end of the reporting period. The 6-month deviation report shall cover the following periods unless otherwise approved by the Department:

1. January 1 through June 30
2. July 1 through December 31

b) The annual compliance certification report, required under Section B Condition #024, shall be submitted to both the Department and EPA within 30 days of the end of the reporting period. The annual compliance certification shall cover the period of January 1 through December 31 unless otherwise approved by the Department.

**# 017 [25 Pa. Code §135.21]****Emission statements**

a) The permittee 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.

b) Annual emission statements are due by March 1 for the preceding calendar year, 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.

**# 018 [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?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17,

**SECTION C. Site Level Requirements**

2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**VI. WORK PRACTICE REQUIREMENTS.****# 019 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

[From: 25 Pa. Code §123.1(c)]

A person responsible for any source specified in subsections (a)(1) -- (7) or (9) 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.

**# 020 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 021 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 022 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 023 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 024 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1965]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What is a deviation?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**SECTION C. Site Level Requirements****VII. ADDITIONAL REQUIREMENTS.****# 025 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

In the event that any of the federal subparts that are the subject of this operating permit are revised, the permittee shall comply with the revised version of that subpart, and shall not be required to with any provisions in the 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.

**# 026 [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 a 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) Not applicable

(2) Not applicable

(3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m<sup>3</sup>) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to § 63.1959.

(b) Not applicable

**# 027 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1940]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills  
What is the affected source of this subpart?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 028 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1945]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills  
When do I have to comply with this subpart?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 029 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1950]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills  
When am I no longer required to comply with this subpart?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 030 [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.**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 031 [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?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**SECTION C. Site Level Requirements****# 032 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1985]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills  
Who enforces this subpart?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**# 033 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1990]****Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills  
What definitions apply to this subpart?**

Not applicable until uncontrolled NMOC emissions are equal to or greater than 50 Mg per year as calculated according to 40 CFR 62.16718 of the Federal Plan Requirements for MSW Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 ( 40 CFR Part 62, OOO), per 40 CFR 63.1935(a).

**VIII. COMPLIANCE CERTIFICATION.**

The permittee shall submit within thirty days of 12/31/2017 a certificate of compliance with all permit terms and conditions set forth in this Title V permit as required under condition #026 of section B of this permit, and annually thereafter.

**IX. COMPLIANCE SCHEDULE.**

No compliance milestones exist.

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

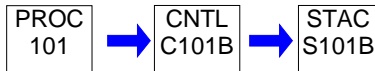
**SECTION D. Source Level Requirements**

Source ID: 101

Source Name: LANDFILL

Source Capacity/Throughput: 123.000 MCF/HR LFG

Conditions for this source occur in the following groups: 40 CFR 62 SUBPART 000

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

- a) This section applies to sources except those subject to other provisions of this article, with respect to the control of sulfur compound emissions.
- b) 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 SO<sub>2</sub>, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

**# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-174E, condition # 001]

(a) [Deleted]

(b) The source shall comply with 25 Pa Code Sections 123.1, 123.21, 123.31, and 123.41 for Fugitive Matter, Sulfur Compound, Odor, and Visible Emissions.

(c) Under the best available technology provisions of 25 Pa Code Sections 127.1 and 127.12 of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the following requirements are hereby established for the flare:

1. 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 and the emissions during these periods shall not exceed 10% opacity. The opacity of the emissions shall not be equal to or greater than 60% at any time.
2. The flare shall be designed and operated to either reduce nonmethane organic compounds (NMOC) by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane @ 3% oxygen.
3. Particulate Matter emissions from the flare shall not exceed 0.02 grain/dscf.

**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.****# 003 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-174E, condition # 003]

**SECTION D. Source Level Requirements**

(a) Under the best available technology provisions of 25 Pa Code Sections 127.1 and 127.12 of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the following requirements are hereby established for the flare:

1. The operating temperature of the flare shall be continuously measured and recorded. The recording charts shall be made available to the Department personnel upon request. These charts shall remain on file for a period of 5 years.
2. The owner or operator shall keep on file records of all periods of operation in which the flame or flare pilot flame is absent. The records shall be made readily available upon Department request.

**V. REPORTING REQUIREMENTS.****# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-174H, condition # 003]

[The facility is complying with the below requirement of 40 CFR 60 Subpart WWW by meeting the requirements of 40 CFR 62 Subpart OOO.]

(a) The facility shall comply with New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart WWW and shall comply with all applicable requirements of this subpart. This includes, but is not limited to, the following:

1. Submit reports in accordance with 40 CFR 60.757
2. 40 CFR 60.4 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 the address in Section B, Condition #022 of this permit.

**VI. WORK PRACTICE REQUIREMENTS.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Plan Approval 42-174H, Condition #004]

(a) The facility shall submit a BMP to prevent particulate matter from becoming airborne to the Department for approval within 90 days after plan approval issuance. The BMP should incorporate the provisions in Condition #010(a) and (b). BAT for MSW landfills is to take all reasonable actions to prevent particulate matter from becoming airborne. MSW landfill owners and operators should determine their site-specific BMPs, which generally will include one or more of the following:

1. Paved and unpaved internal roadways should not be allowed to generate excessive dust emissions or the tracking of dirt/soils onto public roads (carryout). BMPs to prevent excessive emissions and carryout include, but are not limited to, sweeping and/or use of a tire washing system. Relevant factors to determine whether such activities are a BMP include the length of the paved road between unpaved portions of truck traffic and the public road, the type of soils at the landfill, weather, etc. Generally, whether sweeping or tire washing is necessary should be a function of actual, daily site conditions.
2. Water or other chemical dust suppressants could be applied to the unpaved road surface to reduce fugitive dusts, if necessary, based on daily site conditions. Water, if used, shall not be applied if the result would be a potentially unsafe condition, such as ice formation. In no event shall waste oil be used as a dust suppressant.
3. An appropriate speed limit will be established within 120 days of the issuance of the Plan Approval and posted on all unpaved roadways within the MSW landfill. The MSW landfill owner or operator will submit the proposed speed limit to DEP, in writing, for approval. If the proposed speed limit is approved, it will be incorporated into the MSW landfill's air quality's operating permit. The owner or operator of the landfill should post speed limit signs consistent with the requirements of Pennsylvania Department of Transportation (PennDOT) (overall dimension 20 inches x 24 inches, "SPEED LIMIT" in 4-inch letters and 10-inch numerals).
4. 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. The vacuum sweeping should be performed when necessary.
5. Upon leaving the landfill, the undercarriage, wheels and chassis of the vehicles which were used to transport wastes and earth should be washed to prevent earthen carryout onto roadways.
6. The access roadways if unpaved at the unloading areas (active cells) should have a crown and/or pitch so that water runs

**SECTION D. Source Level Requirements**

off and does not pool. Water or other chemical dust suppressants should be applied to the unpaved road surface to reduce fugitive dusts. Water or chemical dust suppressants should also be applied as needed.

7. Water or other chemical dust suppressants should 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, should be applied at least twice per day. Chemical dust suppressants, if used, should be applied at least once per month. Application of dust suppressants on the public highway should be done in accordance with the appropriate PennDOT Bulletins.

8. Earth or other materials should not be deposited by trucking or other means on the public roadways. MSW landfills shall take all reasonable steps necessary to meet this performance standard.

9. If any earth or other material is deposited by trucking or other means on public roadways, it shall be removed promptly.

[Plan Approval 42-174H]

(b) Records describing those fugitive dust control activities that were undertaken should be maintained for on-site review by DEP personnel.

1. A written manual documenting the BMPs utilized at the MSW landfill to control fugitive particulate matter emissions should be maintained on-site.

2. The company shall keep sufficient records to demonstrate that the BMPs are being implemented.

3. The BMP manual and records documenting implementation of the BMPs should be maintained at the office of the MSW landfill for 5 years and shall be made available to DEP upon request.

**# 006 [25 Pa. Code §127.12b]**

**Plan approval terms and conditions.**

[Plan Approval 42-174H, condition # 005]

(a) Under the best available technology provisions of 25 Pa Code Sections 127.1 and 127.12 of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the following requirements are hereby established for the flare:

1. The flare shall be designed and operated in accordance with 40 CFR Section 60.18.
2. The flare must be an enclosed ground type, which is shrouded with no visible flame shooting from the flare.
3. The flare shall be equipped with a continuous pilot ignition source using an auxiliary fuel.
4. 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 flameout occurs. During restart 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.
5. The flare minimum operating combustion temperature of 1500°F shall be maintained at a residence time of at least 0.3 seconds. The minimum 3-hour average combustion temperature of the flare shall be 1500F or the 3-hour average combustion temperature maintained during the most recent performance test in which compliance with the 98% destruction efficiency or 20 ppmv requirement was demonstrated. If the flare is equipped with multiple thermocouples, the minimum operating combustion temperature shall be developed for each thermocouple during compliance stack testing.

(b) Under the best available technology provisions of Section 127.1 and 127.12 of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the following requirements are hereby established:

1. The collection system shall be designed to minimize offsite migration of the subsurface gas. The gas collection system shall be designed:

- (a) to collect gas from the maximum possible area of the landfill; and,
- (b) to accommodate the maximum gas generation rate for the landfill.

2. Should the landfill gas flow rate from the disposal area exceed the maximum design capacity of the control devices, the company shall submit a plan approval application for the installation of an additional control device deemed acceptable by the Department.



**SECTION D. Source Level Requirements**

3. The landfill gas (LFG) shall be controlled and monitored in accordance with 25 Pa Code Section 273.292.

4. 25 Pa Code Section 273.217 requires landfill operators to implement fugitive air contaminant control measures and otherwise prevent and control air pollution in accordance with the Air Pollution Control Act (35 P.S. §§ 4001-4014), Article III (relating to air resources) and 25 Pa Code § 273.218 (relating to nuisance minimization and control). Minimization and control measures shall include the following:

(a) Ensuring that operation of the facility will not cause or contribute to exceeding ambient air quality standards under 25 Pa Code §131.3 (relating to ambient air quality standards).

(b) Ensuring that no open burning occurs at the facility.

(c) Minimizing the generation of fugitive dust emissions from the facility.

(c) Annually, the permittee shall calculate the year-end gas generation rate in accordance with 40 CFR 60.755(a)(1)(ii) using known year-to-year solid waste acceptance rates. Also, the permittee shall estimate the next year-end gas generation rate using projected solid waste acceptance rates. The permittee shall compare both rates to the installed control devices maximum gas capacity. The permittee shall submit a report containing the calculated year-end and the estimated next year end gas generation rates by June 30 until such time as the plan approval for the next control device has been submitted. This report may be submitted as part of the Solid Waste Annual Operating Report; however, a copy needs to go to Air Quality. Once the calculated year-end or the estimated next year-end gas generation rate exceeds 80% of the existing control devices maximum gas capacity (>1,200 cfm) from the report due June 30, the permittee shall submit a new plan approval application, within 60-days of the report above, for installation of an additional control device that will control LFG above the permitted capacity (1,500 cfm) as stipulated under this plan approval.

(d) The facility shall have in place approved additional control device(s) prior to the landfill exceeding its currently permitted flare capacity of 1,500 cfm.

[The facility is complying with the below requirement(s) of 40 CFR 60 Subpart WWW by meeting the requirements of 40 CFR 62 Subpart OOO.]

(e) The landfill gas (LFG) shall be collected in accordance with 25 Pa Code Section 273.292 so as to prevent offsite migration. When solid waste in an area, cell, or group of cells in the MSW landfill has been in place for 5 years or more if active or 2 years or more if closed or at final grade, then the landfill gas collection system shall be expanded into the area, cell, or group of cells according to the following schedule. If the landfill is not subject to the control requirements of 40 CFR 60 Subpart WWW [40 CFR 60.752(b)(2)], then the landfill gas collection system shall be expanded within one year of solid waste reaching the specified age (based on initial waste placement) or within one year of plan approval issuance, whichever is later. If the landfill is subject to the control requirements of 40 CFR 60 Subpart WWW, then the collection system shall be expanded in accordance with the requirements of 40 CFR 60 Subpart WWW.

(f) The landfill shall operate each interior well with a negative pressure, except in the case of a fire or increased well temperature, the use of a geomembrane or synthetic cover, or at a decommissioned well. The pressure at each well shall be measured monthly. If a positive pressure is measured at a well, actions shall be taken to restore negative pressure at that well. If negative pressure cannot be restored within 15 days of the initial positive pressure measurement, the gas collection system shall be expanded within 120 days of the initial positive pressure measurement, unless an alternative timeline is established and approved by the Department. Provided this corrective action timeline is followed for an exceedance, that exceedance is not a deviation of the permit condition. Records shall be kept on file for a period of 5 years and made available to Department personnel upon request.

(g) The landfill shall operate each interior well at a temperature less than 55 °C and an oxygen level less than 5 percent (or a nitrogen level less than 20 percent) except in the case of a decommissioned well. An alternate value may be established and approved by the Department for a parameter at a well if appropriate. On a monthly basis, the landfill shall monitor each well for temperature and oxygen (or nitrogen) except in the case of a decommissioned well. If a well exceeds one of these parameters, actions shall be taken to correct the exceedance. If the exceedance cannot be corrected within 15 days of the initial exceedance, the gas collection system shall be expanded within 120 days of the initial exceedance, unless an alternative timeline is established and approved by the Department. Provided this corrective action timeline is followed for an exceedance, that exceedance is not a deviation of the permit condition. Records shall be kept on file for a period of 5 years and made available to Department personnel upon request.

(h) On a quarterly basis, the landfill shall conduct surface monitoring around the perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals. An alternative traversing pattern may be established and approved by the Department. Areas with steep slopes or other dangerous areas may be excluded from monitoring. Records shall be kept

**SECTION D. Source Level Requirements**

on file for a period of 5 years and made available to Department personnel upon request. If a concentration above 500 parts per million (above background) is measured, action shall be taken at that location to correct the exceedance. If the exceedance cannot be corrected within 30 days, the gas collection system shall be expanded within 120 days of the initial exceedance. An alternative timeline for correcting the exceedance may be established and approved by the Department. Provided this corrective action timeline is followed for an exceedance, that exceedance is not a deviation of the permit condition. Any closed landfill with methane concentrations below 500 ppm (above background) in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more (above background) during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

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

(j) The permittee shall perform quarterly monitoring to determine there are 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 exposed equipment. The landfill equipment subject to this requirement shall include the exposed portions of the gas wells, piping or any other connections or fittings along the landfill gas transfer paths of a landfill gas collection and disposal system. A log shall be kept at the facility indicating any leak that exceeds the above concentration and the corrective action taken for a period of five years and made readily available to Department personnel upon request.

(k) The facility shall either:

1) Install, calibrate and maintain a gas flow rate measuring device that shall record the flow to the control devices at least every 15 minutes: or

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 shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(l) Petroleum contaminated soils may be used as daily landfill cover provided the VOC emissions from the contaminated soils does not exceed 2.7 tpy based on a consecutive 12-month period. The facility shall keep records of the petroleum-contaminated soil received at the landfill. The following information shall be recorded:

1. Tons of contaminated soil received.

2. Contaminate type (PHC or BTEX)

(a) PHC is total petroleum hydrocarbons

(b) BTEX is benzene, toluene, ethyl benzene, and xylenes

3. The maximum and average PHC and/or BTEX concentration (from Waste Management Form FC-1) expressed in mg/kg.

4. Potential VOC emissions shall be calculated as follows:

(a) PHC (expressed as mg/kg) X 10<sup>-6</sup> X tons of soil = tons of VOC

(b) BTEX (expressed as mg/kg) X 10<sup>-6</sup> X tons of soil = tons of VOC

5. Quarterly reports shall be submitted to the Department of the VOC emissions within 30-days of the end of each calendar quarter.

(m) - (n) [These conditions were deleted based upon the BMP submitted by the facility for preventing particulate matter from becoming airborne that was submitted to the Department on November 18, 2020 as required by Plan Approval 42-174H.]

**# 007 [25 Pa. Code §127.511]**

**Monitoring and related recordkeeping and reporting requirements.**

The source and control device shall be maintained and operated in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.

**VII. ADDITIONAL REQUIREMENTS.**

**# 008 [25 Pa. Code §127.441]**

**Operating permit terms and conditions.**

In the event that any of the federal subparts that are the subject of this operating permit are revised, the permittee shall comply with the revised version of that subpart, and shall not be required to with any provisions in the permit designated as

**SECTION D. Source Level Requirements**

having the subpart as their authority, to the extent that such permit provisions would be inconsistent with the applicable provisions of the revised subpart.

**# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.7]****Subpart A - General Provisions****Notification and record keeping.**

a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

(1) A notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.

(2) [Reserved]

(3) Not applicable.

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(5) - (7): Not applicable.

[All other conditions are not applicable]

**# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.8]****Subpart A - General Provisions****Performance tests.**

a) 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 of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

**SECTION D. Source Level Requirements**

e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

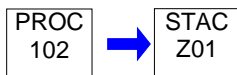
**\*\*\* Permit Shield in Effect. \*\*\***

**SECTION D. Source Level Requirements**

Source ID: 102

Source Name: LEACHATE TREATMENT PLANT (30,000 GPD)

Source Capacity/Throughput: 1,250.000 Gal/HR

**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.**

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: 40 CFR 62 SUBPART OOO

Group Description: § 40 CFR 62 Subpart OOO. FIP for Municipal Solid Waste Landfills that commenced construction c

Sources included in this group:

ID	Name
101	LANDFILL

**I. RESTRICTIONS.****Control Device Efficiency Restriction(s).****# 001 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16714]**

**Subpart OOO - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014**  
**Standards for municipal solid waste landfill emissions.**

(a) LANDFILLS. Each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume must collect and control MSW landfill emissions at each MSW landfill that meets the following conditions:

- (1) WASTE ACCEPTANCE DATE. The landfill has accepted waste at any time since November 8, 1987, or has additional design capacity available for future waste deposition.
- (2) CONSTRUCTION COMMENCEMENT DATE. The landfill commenced construction, reconstruction, or modification on or before July 17, 2014.
- (3) NMOC EMISSION RATE. The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year or Tier 4 SEM shows a surface emission concentration of 500 parts per million methane or greater.
- (4) CLOSED SUBCATEGORY. The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year.

(b) COLLECTION SYSTEM. Install a gas collection and control system meeting the requirements in paragraphs (b)(1) through (3) and (c) of this section at each MSW landfill meeting the conditions in paragraph (a) of this section.

(1) COLLECTION SYSTEM. Install and start up a collection and control system that captures the gas generated within the landfill within 30 months after:

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

(2) ACTIVE. An active collection system must:

- (i) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment.
- (ii) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.
- (iii) Collect gas at a sufficient extraction rate.
- (iv) Be designed to minimize off-site migration of subsurface gas.

(3) PASSIVE. A passive collection system must:

**SECTION E. Source Group Restrictions.**

(i) Comply with the provisions specified in paragraphs (b)(2)(i), (ii), and (iv) of this section.

(ii) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40.

(c) CONTROL SYSTEM. Control the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in 40 CFR 60.24.

(1) A non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in §62.16722(d); or

(2) A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts-per-million by volume, dry basis as hexane at 3-percent oxygen or less. The reduction efficiency or concentration in parts-per-million by volume must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in §62.16718(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.

(i) [Not Applicable]

(ii) [Omitted. Provisions for control devices other than a non-enclosed flare, an enclosed combustor or a treatment system.]

(iii) Legacy controlled landfills or landfills in the closed landfill subcategory that have already installed control systems and completed initial or subsequent performance tests may comply with this subpart using the initial or most recent performance test conducted to comply with 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing subpart Cc of part 60, is sufficient for compliance with this subpart.

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

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

(d) DESIGN CAPACITY. [Omitted. For MSW landfills with design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume.]

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

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

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

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

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

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

**SECTION E. Source Group Restrictions.**

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

(3) For the closed landfill subcategory, if the calculated NMOC emission rate submitted under previously applicable regulations 40 CFR part 60, subpart WWW; 40 CFR part 62, subpart GGG; or a state plan implementing 40 CFR part 60, subpart Cc is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either: submit a collection and control system design plan as specified in §62.16724(d), except for exemptions allowed under §62.16711(g)(3); or calculate NMOC emissions using a higher tier in §62.16718.

(f) 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 §62.16730). A closure report must be submitted to the Administrator as provided in §62.16724(f).

(2) The 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.

(3) Following the procedures specified in §62.16718(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

(4) For the closed landfill subcategory (as defined in §62.16730), following the procedures specified in §62.16718(b), the calculated NMOC emission rate at the landfill is less than 50 megagrams per year on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

[86 FR 27770, May 21, 2021, as amended at 87 FR 8203, Feb. 14, 2022]

**II. TESTING REQUIREMENTS.****# 002 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16718]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Test methods and procedures.**

Calculate the landfill NMOC emission rate and conduct a surface emission monitoring demonstration according to the provisions in this section.

(a)

(1) NMOC EMISSION RATE. 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 for  $L_0$ , and 4,000 parts per million by volume 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 meteorological 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.

[For Equation 1, refer to § 62.16718(a)(1)(i)(A) in [www.ecfr.gov](http://www.ecfr.gov).]

Where:

MNMOC = Total NMOC emission rate from the landfill, megagrams per year.

$k$  = Methane generation rate constant, year<sup>(-1)</sup>.

$L_0$  = Methane generation potential, cubic meters per megagram solid waste.

$M_i$  = Mass of solid waste in the  $i$ th section, megagrams.

$t_i$  = Age of the  $i$ th section, years.

CNMOC = Concentration of NMOC, parts per million by volume as hexane.

$3.6 \times 10^{(-9)}$  = Conversion factor.



**SECTION E. Source Group Restrictions.**

(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.

$$\text{NMNOC} = (2 \cdot L_o \cdot R) \left( [e^{-(kc)}] - [e^{-(kt)}] \right) (\text{CNMOC}) (3.6 \times 10^{-9})$$

[For the equation & complete notations for Equation 2, refer to § 62.16718(a)(1)(ii)(A) in [www.ecfr.gov](http://www.ecfr.gov).]

Where:

NMNOC = Mass emission rate of NMOC, megagrams per year.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$R$  = Average annual acceptance rate, megagrams per year.

$k$  = Methane generation rate constant,  $\text{year}^{-1}$ .

$t$  = Age of landfill, years.

CNMOC = Concentration of NMOC, parts per million by volume as hexane.

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

$3.6 \times 10^{-9}$  = 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 34 megagrams per year.

(i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the owner or operator must submit an NMOC emission rate report according to §62.16724(c) and must recalculate the NMOC mass emission rate annually as required under §62.16714(e).

(ii) If the NMOC emission rate calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §62.16724(d) and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c);

(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 of 40 CFR 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 is 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 of 40 CFR 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 probes per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.

(i) Within 60 days after the date of determining the NMOC concentration and corresponding NMOC emission rate, the

**SECTION E. Source Group Restrictions.**

owner or operator must submit the results according to §62.16724(j)(2).

(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 using 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 34 megagrams per year, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §62.16724(c) and must recalculate the NMOC mass emission rate annually as required under §62.16714(e). The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.

(iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §62.16724(d) and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c);

(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; or

(C) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) 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 of 40 CFR part 60. 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 34 megagrams per year.

(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 34 megagrams per year, the owner or operator must either:

(A) Submit a gas collection and control system design plan within 1 year as specified in §62.16724(d) and install and operate a gas collection and control system within 30 months according to §62.16714(b) and (c); or

(B) Conduct a surface emission monitoring demonstration using the Tier 4 procedures specified in paragraph (a)(6) of this section.

(ii) If the NMOC mass emission rate is less than 34 megagrams per year, 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 §62.16724(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) ALTERNATIVE 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.

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

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

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

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

**SECTION E. Source Group Restrictions.**

of 40 CFR part 60, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole.

(A) The owner or operator must use a wind barrier, similar to a funnel, when onsite average wind speed exceeds 4 miles per hour or 2 meters per second or gust exceeding 10 miles per hour. Average on-site wind speed must also be determined in an open area at 5-minute intervals using an on-site anemometer with a continuous recorder and data logger for the entire duration of the monitoring event. The wind barrier must surround the SEM monitor, and must be placed on the ground, to ensure wind turbulence is blocked. The SEM cannot be conducted if average wind speed exceeds 25 miles per hour.

(B) Landfill surface areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, and all cover penetrations must also be monitored using a device meeting the specifications provided in §62.16720(d).

(iv) Each owner or operator seeking to comply with the Tier 4 provisions in paragraph (a)(6) of this section must maintain records of surface emission monitoring as provided in §62.16726(g) and submit a Tier 4 surface emissions report as provided in §62.16724(d)(4)(iii).

(v) If there is any measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must submit a gas collection and control system design plan within 1 year of the first measured concentration of methane of 500 parts per million or greater from the surface of the landfill according to §62.16724(d) and install and operate a gas collection and control system according to §62.16714(b) and (c) within 30 months of the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2.

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

(vii) If after four consecutive quarterly monitoring periods at a closed landfill there is no measured concentration of methane of 500 parts per million or greater from the surface of the landfill, the owner or operator must conduct annual surface emission monitoring using the methods specified in this section.

(viii) If a landfill has installed and operates a collection and control system that is not required by this subpart, then the collection and control system must meet the following criteria:

(A) The gas collection and control system must have operated for at least 6,570 out of 8,760 hours preceding the Tier 4 SEM demonstration.

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

(b) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in §62.16714(f), using Equation 3:

$$\text{MNMOC} = (1.89 \times 10^{-3}) (\text{QLFG}) (\text{CNMOC})$$

[For Equation 3, refer to § 62.16718(b) in [www.ecfr.gov](http://www.ecfr.gov).]

Where:

MNMOC = Mass emission rate of NMOC, megagrams per year.

QLFG = Flow rate of landfill gas, cubic meters per minute.

CNMOC = NMOC concentration, parts per million by volume as hexane.

(1) FLOW RATE. 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 40 CFR part 60.

(2) NMOC CONCENTRATION. 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 EPA Method 25C of appendix A-7 of 40 CFR part 60. 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

**SECTION E. Source Group Restrictions.**

divide the NMOC concentration from EPA Method 25 or EPA Method 25C of appendix A-7 of 40 CFR part 60 by six to convert from CNMOC as carbon to CNMOC as hexane.

(3) GAS FLOW RATE METHOD. The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.

(i) Within 60 days after the date of calculating the NMOC emission rate for purposes of determining when the system can be capped or removed, the owner or operator must submit the results according to §62.16724(j)(2).

(ii) [Reserved]

(c) When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each MSW landfill subject to the provisions of this subpart must estimate the NMOC emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP-42) or other approved measurement procedures.

(d) For the performance test required in §62.16714(c)(1), the net heating value of the combusted landfill gas as determined in 40 CFR 60.18(f)(3) of this chapter is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C. A minimum of three 30-minute EPA Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. EPA Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under 40 CFR 60.18(f)(4) of this chapter.

(1) PERFORMANCE TEST RESULTS. Within 60 days after the date of completing each performance test (as defined in §60.8 of this chapter), the owner or operator must submit the results of the performance tests required by paragraph (b) or (d) of this section, including any associated fuel analyses, according to §62.16724(j)(1).

(2) [Reserved]

(e) For the performance test required in §62.16714(c)(2), EPA Method 25 or 25C (EPA Method 25C may be used at the inlet only) of appendix A-7 of 40 CFR part 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts-per-million by volume outlet NMOC concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by §62.16724(d)(2). EPA Method 3, 3A, or 3C of appendix A-2 of 40 CFR part 60 must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 parts-per-million NMOC as carbon (8 parts-per-million NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 of appendix A-6 of 40 CFR part 60 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landfill owner or operator must divide the NMOC concentration as carbon by 6 to convert the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

[For Equation 4, refer to § 62.16718(e) in [www.ecfr.gov](http://www.ecfr.gov).]

Where:

NMOC<sub>in</sub> = Mass of NMOC entering control device.

NMOC<sub>out</sub> = Mass of NMOC exiting control device.

(1) PERFORMANCE TEST SUBMISSION. Within 60 days after the date of completing each performance test (as defined in §60.8 of this chapter), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, according to §62.16724(j)(1).

(2) [Reserved]

**III. MONITORING REQUIREMENTS.**

**# 003 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16722]**

**Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014  
Monitoring of operations.**

Follow the monitoring provisions in this section (as well as the provisions in §§ 62.16716 and 62.16720), except as provided in

**SECTION E. Source Group Restrictions.**

§ 62.16724(d)(2), or the monitoring provisions in § 63.1961 of this chapter (as well as the provisions in §§ 63.1958 and 63.1960 of this chapter), or both as alternative means of compliance, for an MSW landfill with a gas collection and control system used to comply with the provisions of § 62.16714(b) and (c). Once the owner or operator begins to comply with the provisions of § 63.1961 of this chapter, the owner or operator must continue to operate the collection and control device according to those provisions and cannot return to the provisions of this section.

(a) Each owner or operator seeking to comply with § 62.16714(b)(2) 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 § 62.16720(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 of 40 CFR part 60, unless an alternative test method is established as allowed by § 62.16724(d)(2).

(ii) Unless an alternative test method is established as allowed by § 62.16724(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A of appendix A-7 of 40 CFR part 60, EPA Method 3C of appendix A-7 of 40 CFR part 60, or ASTM D6522-11. Determine the oxygen level by an oxygen meter using EPA Method 3A, 3C, 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;

(E) The allowable sample bias, zero drift, and calibration drift are  $\pm 10$  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 or ASTM D6522-11.

(3) Monitor temperature of the landfill gas on a monthly basis as provided in § 62.16720(a)(4). The temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, EPA Method 2, section 10.3.

(b) Each owner or operator seeking to comply with § 62.16714(c) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

(1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of  $\pm 1$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 0.5$  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 § 62.16714(c) 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.

(2) A device that records flow to the flare and bypass of the flare (if applicable). The owner or operator must:

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

(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(d) Each owner or operator seeking to demonstrate compliance with § 62.16714(c) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in § 62.16724(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.

(e) Each owner or operator seeking to install a collection system that does not meet the specifications in § 62.16728 or seeking to monitor alternative parameters to those required by § 62.16716 through § 62.16722 must provide information satisfactory to the Administrator as provided in § 62.16724(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

(f) Each owner or operator seeking to demonstrate compliance with the 500 parts-per-million surface methane operational standard in § 62.16716(d) must monitor surface concentrations of methane according to the procedures provided in § 62.16720(c) and the instrument specifications in § 62.16720(d). Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 parts-per-million or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

(g) Each owner or operator seeking to demonstrate compliance with the control system requirements in § 62.16714(c) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in § 62.16726(b)(5)(ii) and 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). 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 (b), (c), (d), and (g) of this section apply at all times the designated facility 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.

(i) Incorporation by reference required material.

(1) The material required by this section was approved for incorporation by reference into this section by the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. You may inspect approved material at the EPA Docket Center, WJC West Building, Room Number 3334, 1301 Constitution Ave. NW, Washington, DC, (202) 566-1744, Docket ID No. EPA-HQ-OAR-2019-0338 and obtain it from the source(s) listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

(2) ASTM International, 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-2959, (800) 262-1373, [www.astm.org](http://www.astm.org).

**SECTION E. Source Group Restrictions.**

(i) ASTM D6522–11 Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, approved December 1, 2011.

(ii) [Reserved]

**IV. RECORDKEEPING REQUIREMENTS.****# 004 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16726]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Recordkeeping guidelines.**

Follow the recordkeeping provisions in this section.

(a) Except as provided in §62.16724(d)(2), each owner or operator of an MSW landfill subject to the provisions of §62.16714(e) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §62.16714(e), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(b) Except as provided in §62.16724(d)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.

(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §62.16714(b):

(i) The maximum expected gas generation flow rate as calculated in §62.16720(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator.

(ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §62.16728(a)(1).

(2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §62.16714(c) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

(i) The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

(ii) The percent reduction of NMOC determined as specified in §62.16714(c)(2) achieved by the control device.

(3) [Omitted. Provision for use of a boiler or process heater.]

(4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §62.16714(c)(1) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or non-assisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18 of this chapter; and continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

(5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with § 62.16714(c)(3) through use of a landfill gas treatment system:

(i) Bypass records. Records of the flow of landfill gas to, and bypass of, the treatment system.

(ii) Site-specific treatment monitoring plan. A site-specific treatment monitoring plan, to include:

(A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.

**SECTION E. Source Group Restrictions.**

(B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.

(C) Documentation of the monitoring methods and ranges, along with justification for their use.

(D) Identify who is responsible (by job title) for data collection.

(E) Processes and methods used to collect the necessary data.

(F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

(c) Except as provided in §62.16724(d)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §62.16722 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

(1) The following constitute exceedances that must be recorded and reported under §62.16724:

(i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal unit per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §62.16714(c) was determined.

(ii) [Omitted. Provision for boilers or process heaters.]

(2) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under §62.16722.

(3) [Omitted. Provision for use of a boiler or process heaters]

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

(5) Each owner or operator of a landfill seeking to comply with §62.16714(e) using an active collection system designed in accordance with §62.16714(b) must keep records of periods when the collection system or control device is not operating.

(d) Except as provided in §62.16724(d)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label on each collector that matches the labeling on the plot map.

(1) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §62.16720(b).

(2) Each owner or operator subject to the provisions of this subpart must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §62.16728(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §62.16728(a)(3)(ii).

(e) Except as provided in § 62.16724(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the items in paragraphs (e)(1) through (5) of this section. Each owner or operator that chooses to comply with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter, as allowed in §§ 62.16716, 62.16720, and 62.16722, must keep the records in paragraph (e)(6) of this section and must keep records according to § 63.1983(e)(1) through (5) of this chapter in lieu of paragraphs (e)(1) through (5) of this section.

(1) All collection and control system exceedances of the operational standards in §62.16716, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

(2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.



**SECTION E. Source Group Restrictions.**

(3) For any root cause analysis for which corrective actions are required in §62.16720(a)(3) or §62.16720(a)(4), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

(4) For any root cause analysis for which corrective actions are required in §62.16720(a)(3)(ii) or §62.16720(a)(4)(ii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(5) For any root cause analysis for which corrective actions are required in §62.16720(a)(3)(iii) or §62.16720(a)(4)(iii), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the regulatory agency.

(6) Each owner or operator that chooses to comply with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter, as allowed in §§ 62.16716, 62.16720, and 62.16722, must keep records of the date upon which the owner or operator started complying with the provisions in §§ 63.1958, 63.1960, and 63.1961 of this chapter.

(f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided in the definition of "design capacity," must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(g) Landfill owners or operators seeking to demonstrate that site-specific surface methane emissions are below 500 parts-per-million by conducting SEM under the Tier 4 procedures specified in §62.16718(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all SEM and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of EPA Method 21 of appendix A-7 of 40 CFR part 60 of this chapter, including all of the following items:

(1) Calibration records.

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value.

(v) If an owner or operator makes their own calibration gas, a description of the procedure used.

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

(3) Timestamp of each surface scan reading.

(i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.

(ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).

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

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

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

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

**SECTION E. Source Group Restrictions.**

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

(9) Records of the operating hours of the gas collection system for each destruction device.

(h) Except as provided in §62.16724(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §62.16722(a)(1), (2), and (3).

(i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.

(j) For each owner or operator reporting leachate or other liquids addition under §62.16724(l), keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

**V. REPORTING REQUIREMENTS.****# 005 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16724]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Reporting guidelines**

Follow the reporting provisions listed in this section, as applicable, except as provided under 40 CFR 60.24 and §§62.16711(g), (h), and 62.16724(d)(2).

(a) DESIGN CAPACITY REPORT. [Not applicable to legacy controlled landfills as per § 62.16711(h)(1).]

(b) AMENDED DESIGN CAPACITY REPORT. An amended design capacity report must be submitted providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. 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 §62.16726(f).

(c) NMOC EMISSION RATE REPORT. [Not applicable to legacy controlled landfills as per § 62.16711(h)(2).]

(d) COLLECTION AND CONTROL SYSTEM DESIGN PLAN. [Not applicable to legacy controlled landfills as per § 62.16711(h)(3).]

[Provision for gas treatment system (§ 62.16724(d)(7)) is incorporated under Source Group GAS TREATMENT SYSTEMS in Section E of this permit.]

(e) REVISED DESIGN PLAN. The owner or operator who has already been required to submit a design plan under paragraph (d) of this section, or under subpart GGG of this part; 40 CFR part 60, subpart WWW; or a state plan implementing subpart Cc of 40 CFR part 60, must submit a revised design plan to the Administrator for approval as follows:

(1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.

(2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator according to paragraph (d) of this section.

(f) CLOSURE REPORT. Each owner or operator of a controlled landfill must submit a closure report to the Administrator within 30 days of ceasing waste acceptance. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

(g) EQUIPMENT REMOVAL REPORT. Each owner or operator of a controlled landfill must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.

(1) The equipment removal report must contain the following items:

**SECTION E. Source Group Restrictions.**

(i) A copy of the closure report submitted in accordance with paragraph (f) of this section; and

(ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, unless the report of the results of the performance test has been submitted to the EPA via the EPA's Central Data Exchange (CDX), or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX; and

(iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports; or

(iv) For the closed landfill subcategory, dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year, unless the NMOC emission rate reports have been submitted to the EPA via the EPA's CDX. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

(2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in §62.16714(f) have been met.

(h) ANNUAL REPORT. The owner or operator of a landfill seeking to comply with §62.16714(e)(2) using an active collection system designed in accordance with §62.16714(b) must submit to the Administrator, following the procedures specified in paragraph (j)(2) of this section, an annual report of the recorded information in paragraphs (h)(1) through (7) of this section. The initial annual report must be submitted within 180 days of installation and startup of the collection and control system except for legacy controlled landfills that have already submitted an initial report under 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing 40 CFR part 60, subpart Cc. Except for legacy controlled landfills, the initial annual report must include the initial performance test report required under 40 CFR 60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. Legacy controlled landfills are exempted from submitting performance test reports in EPA's CDX provided that those reports were submitted under 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing 40 CFR part 60, subpart Cc. In the initial annual 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. The initial performance test report must be submitted, following the procedure specified in paragraph (j)(1) of this section, no later than the date that the initial annual report is submitted. For enclosed combustion devices and flares, reportable exceedances are defined under §62.16726(c)(1). Legacy controlled landfills are required to submit the annual report no later than one year after the most recent annual report submitted. IF COMPLYING WITH THE OPERATIONAL PROVISIONS OF §§63.1958, 63.1960, AND 63.1961 OF THIS CHAPTER, AS ALLOWED AT §§62.16716, 62.16720, AND 62.16722, THE OWNER OR OPERATOR MUST FOLLOW THE SEMI-ANNUAL REPORTING REQUIREMENTS IN §63.1981(H) OF THIS CHAPTER IN LIEU OF THIS PARAGRAPH. [As per § 62.16711(h)(4), the initial annual report is not applicable to legacy controlled landfills.]

(1) Value and length of time for exceedance of applicable parameters monitored under §62.16722(a)(1), (b), (c), (d), and (g).

(2) Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under §62.16722.

(3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

(4) All periods when the collection system was not operating.

(5) The location of each exceedance of the 500 parts-per-million methane concentration as provided in §62.16716(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(6) The date of installation and the location of each well or collection system expansion added pursuant to §62.16720(a)(3), (4), (b), and (c)(4).

**SECTION E. Source Group Restrictions.**

(7) For any corrective action analysis for which corrective actions are required in §62.16720(a)(3) or (4) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.

(i) INITIAL PERFORMANCE TEST REPORT. [Not applicable to legacy controlled landfills as per § 62.16711(h)(5).]

(j) ELECTRONIC REPORTING. The owner or operator must submit reports electronically according to paragraphs (j)(1) and (2) of this section.

(1) Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8 of this chapter), the owner or operator must submit the results of each performance test according to the following procedures:

(i) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website ([https://www3.epa.gov/ttn/chief/ert/ert\\_info.html](https://www3.epa.gov/ttn/chief/ert/ert_info.html)) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). The CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT website, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file 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, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed 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 ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

(ii) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4 of this chapter.

(2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via the 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://www3.epa.gov/ttn/chief/cedri/index.html>). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4 of this chapter. Once the form has been available in CEDRI for 90 calendar 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.

(k) CORRECTIVE ACTION AND THE CORRESPONDING TIMELINE. The owner or operator must submit according to paragraphs (k)(1) and (2) of this section. IF COMPLYING WITH THE OPERATIONAL PROVISIONS OF 40 CFR 63.1958, 63.1960, AND 63.1961 OF THIS CHAPTER, AS ALLOWED AT §§62.16716, 62.16720, AND 62.16722, THE OWNER OR OPERATOR MUST FOLLOW THE CORRECTIVE ACTION AND THE CORRESPONDING TIMELINE REPORTING REQUIREMENTS IN §63.1981(J) OF THIS CHAPTER IN LIEU OF PARAGRAPHS (K)(1) AND (2) OF THIS SECTION.

(1) For corrective action that is required according to §62.16720(a)(3)(iii) or 62.16720(a)(4)(iii) 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 55 degrees Celsius (131 degrees Fahrenheit) or above. The Administrator must approve the plan for corrective action and the corresponding timeline.

(2) For corrective action that is required according to §62.16720(a)(3)(iii) or §62.16720(a)(4)(iii) 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.

(l) LIQUIDS ADDITION. The owner or operator of a designated facility with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act (RCRA), subtitle D, part 258) within the last 10 years must submit to the Administrator, annually, following the procedure specified in paragraph (j)(2) of this section, the following information:

(1) Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering

**SECTION E. Source Group Restrictions.**

estimates).

(2) Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

(3) Surface area (acres) over which the leachate is recirculated (or otherwise applied).

(4) Surface area (acres) over which any other liquids are applied.

(5) The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

(6) The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

(7) The initial report must contain items in paragraph (l)(1) through (6) of this section per year for the most recent 365 days as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than June 21, 2022.

(8) Subsequent annual reports must contain items in paragraph (l)(1) through (6) of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

(9) Landfills in the closed landfill subcategory are exempt from reporting requirements contained in paragraphs (l)(1) through (7) of this section.

(10) Landfills may cease annual reporting of items in paragraphs (l)(1) through (6) of this section once they have submitted the closure report in §62.16724(f).

(m) TIER 4 NOTIFICATION.

(1) The owner or operator of a designated facility with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts-per-million methane, based on the Tier 4 provisions of §62.16718(a)(6). The landfill must also include a description of the wind barrier to be used during the SEM in the notification. Notification must be postmarked not less than 30 days prior to such date.

(2) If there is a delay to the scheduled Tier 4 SEM date due to weather conditions, including not meeting the wind requirements in §62.16718(a)(6)(A), the owner or operator of a landfill shall notify the Administrator by email or telephone no later than 48 hours before any known delay in the original test date, and arrange an updated date with the Administrator by mutual agreement.

(n) - (p) [Omitted. Collection & control system is already installed.]

(q) 24-HOUR HIGH TEMPERATURE REPORT. Each owner or operator that chooses to comply with the provisions in §§63.1958, 63.1960, and 63.1961 of this chapter, as allowed in §§62.16716, 62.16720, and 62.16722, must submit the 24-hour high temperature report according to §63.1981(k) of this chapter.

**VI. WORK PRACTICE REQUIREMENTS.****# 006 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16716]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Operational standards for collection and control systems.**

Each owner or operator must comply with the provisions for the operational standards in this section (as well as the provisions in §§ 62.16720 and 62.16722), or the operational standards in § 63.1958 of this chapter (as well as the provisions in §§ 63.1960 and 63.1961 of this chapter), or both as alternative means of compliance, for an MSW landfill with a gas collection and control system used to comply with the provisions of § 62.16714(b) and (c). Once the owner or operator begins to comply with the provisions of § 63.1958 of this chapter, the owner or operator must continue to operate the collection and control device according to those provisions and cannot return to the provisions of this section. Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 62.16714(b) and (c) 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

**SECTION E. Source Group Restrictions.**

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 annual reports as provided in § 62.16724(h)(1);
- (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 § 62.16724(d);

(c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). 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) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator must conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 62.16720(d). The owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. Thus, the owner or operator must monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

(e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 62.16714(c). In the event the collection or control system is not operating, 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.

(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 paragraphs (b), (c), or (d) of this section are not met, corrective action must be taken as specified in § 62.16720(a)(3) and (5) or § 62.16720(c). If corrective actions are taken as specified in § 62.16720, the monitored exceedance is not a violation of the operational requirements in this section.

**# 007 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16720]**

**Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014**  
**Compliance provisions.**

Follow the compliance provisions in this section (as well as the provisions in §§ 62.16716 and 62.16722), or the compliance provisions in § 63.1960 of this chapter (as well as the provisions in §§ 63.1958 and 63.1961 of this chapter), or both as alternative means of compliance, for an MSW landfill with a gas collection and control system used to comply with the provisions of § 62.16714(b) and (c). Once the owner or operator begins to comply with the provisions of § 63.1960 of this chapter, the owner or operator must continue to operate the collection and control device according to those provisions and cannot return to the provisions of this section.

(a) Except as provided in § 62.16724(d)(2), the specified methods in paragraphs (a)(1) through (6) of this section must be used to determine whether the gas collection system is in compliance with § 62.16714(b)(2).

(1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 62.16714(b)(2)(i), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k)

**SECTION E. Source Group Restrictions.**

and methane generation potential (Lo) kinetic factors should be those published in the most recent AP-42 or other site-specific values demonstrated to be appropriate and approved by the Administrator. If  $k$  has been determined as specified in § 62.16718(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, cubic meters per year.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$R$  = Average annual acceptance rate, megagrams per year.

$k$  = Methane generation rate constant, year<sup>-1</sup>.

$t$  = 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  $e^{-kc} = 1$ ).

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

Where:

$Q_M$  = Maximum expected gas generation flow rate, cubic meters per year.

$k$  = Methane generation rate constant, year<sup>-1</sup>.

$L_o$  = Methane generation potential, cubic meters per megagram solid waste.

$M_i$  = Mass of solid waste in the  $i$ th section, megagrams.

$t_i$  = Age of the  $i$ th section, years.

(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 paragraphs (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 § 62.16714(b)(2)(ii), 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 § 62.16714(b)(2)(iii), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well monthly. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 62.16716(b). Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If negative pressure cannot be achieved without excess air infiltration within 15 calendar 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 not later than 60 days after positive pressure was first measured. The owner or operator must keep records according to § 62.16726(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure or elevated temperature measurement for which the root cause analysis was required, the owner or operator must also conduct a

**SECTION E. Source Group Restrictions.**

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 55 degrees Celsius (131 degrees Fahrenheit) or positive pressure. The owner or operator must submit the items listed in § 62.16724(h)(7) as part of the next annual report. The owner or operator must keep records according to § 62.16726(e)(4).

(iii) 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 § 62.16724(h)(7) and (k). The owner or operator must keep records according to § 62.16726(e)(5).

(4) For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must monitor each well monthly for temperature as provided in § 62.16716(c). If a well exceeds the operating parameter for temperature, action must be initiated to correct the exceedance within 5 calendar days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

(i) If a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) cannot be achieved within 15 calendar days of the first measurement of landfill gas temperature greater than 55 degrees Celsius (131 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 55 degrees Celsius (131 degrees Fahrenheit) was first measured. The owner or operator must keep records according to § 62.16726(e)(3).

(ii) If corrective actions cannot be fully implemented within 60 days following the measurement of landfill gas temperature greater than 55 degrees Celsius (131 degrees Fahrenheit) 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 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator must submit the items listed in § 62.16724(h)(7) as part of the next annual report. The owner or operator must keep records according to § 62.16726(e)(4).

(iii) 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 § 62.16724(h)(7) and § 62.16724(k). The owner or operator must keep records according to § 62.16726(e)(5).

(5) An owner or operator seeking to demonstrate compliance with § 62.16714(b)(2)(iv) through the use of a collection system not conforming to the specifications provided in § 62.16728 must provide information satisfactory to the Administrator as specified in § 62.16724(d)(3) demonstrating that off-site migration is being controlled.

(b) For purposes of compliance with § 62.16716(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 § 62.16724(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 § 62.16716(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 no more than 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 40 CFR part 60, 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 parts per million 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 § 62.16716(d).



**SECTION E. Source Group Restrictions.**

(i) The location of each monitored exceedance must be marked, and the location and concentration recorded. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.

(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 calendar 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 parts-per-million 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 parts-per-million 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 parts-per-million above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar 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 or § 62.16718(a)(6) 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-7 of 40 CFR part 60, except that "methane" replaces all references to "VOC."

(2) The calibration gas must be methane, diluted to a nominal concentration of 500 parts-per-million in air.

(3) To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of appendix A-7 of 40 CFR part 60, the instrument evaluation procedures of section 8.1 of EPA Method 21 of appendix A-7 of 40 CFR part 60 must be used.

(4) The calibration procedures provided in sections 8 and 10 of EPA Method 21 of appendix A-7 of 40 CFR part 60 must be followed immediately before commencing a surface monitoring survey.

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

**VII. ADDITIONAL REQUIREMENTS.****# 008 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16710]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Scope and delegated authorities.**

This subpart establishes emission control requirements and compliance schedules for the control of designated pollutants from certain designated municipal solid waste (MSW) landfills in accordance with section 111(d) of the Clean Air Act and subpart B of 40 CFR part 60.

(a) If you own or operate a designated facility as described in §62.16711, then you must comply with this subpart.

(b) The following authorities will not be delegated to state, local, or tribal agencies:

(1) Approval of alternative methods to determine the site-specific nonmethane organic compounds (NMOC) concentration or a site-specific methane generation rate constant (k).

(2) Alternative emission standards.

**SECTION E. Source Group Restrictions.**

(3) Major alternatives to test methods. Major alternatives to test methods or to monitoring are modifications made to a federally enforceable test method or to a Federal monitoring requirement. These changes may involve the use of unproven technology or modified procedures or an entirely new method.

(4) Waivers of recordkeeping.

**# 009 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16711]**

**Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 Designated facilities.**

(a) The designated facility to which this subpart applies is each municipal solid waste landfill in each state, protectorate, and portion of Indian country that meets the conditions of paragraphs (a)(1) and (2) of this section, except for landfills exempted by paragraphs (b) and (c) of this section.

(1) The municipal solid waste landfill commenced construction, reconstruction, or modification on or before July 17, 2014.

(2) The municipal solid waste landfill has accepted waste at any time since November 8, 1987, or the landfill has additional capacity for future waste deposition.

(b) - (c) [Not Applicable. MSW landfills in PA are subject to the federal plan requirements of § 62 Subpart 000.]

(d) Physical or operational changes made to an existing MSW landfill solely to comply with an emission guideline implemented by a state or Federal plan are not considered a modification or reconstruction and would not subject an existing MSW landfill to the requirements of 40 CFR 60, subpart XXX. Landfills that commence construction, modification, or reconstruction after July 17, 2014, are subject to 40 CFR part 60, subpart XXX.

(e) For purposes of obtaining an operating permit under title V of the Clean Air Act, the owner or operator of an MSW landfill subject to this subpart with a design capacity less than 2.5 million megagrams or 2.5 million cubic meters is not subject to the requirement to obtain an operating permit for the landfill under 40 CFR part 70 or 71, unless the landfill is otherwise subject to either 40 CFR part 70 or 71. For purposes of submitting a timely application for an operating permit under 40 CFR part 70 or 71, the owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, and not otherwise subject to either 40 CFR part 70 or 71, becomes subject to the requirements of §70.5(a)(1)(i) or 71.5(a)(1)(i) of this chapter 90 days after the effective date of such CAA section 111(d) program approval, even if the design capacity report is submitted earlier.

(f) When an MSW landfill subject to this subpart is closed as defined in this subpart, the owner or operator is no longer subject to the requirement to maintain an operating permit under 40 CFR part 70 or 71 for the landfill if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or 71 and if either of the following conditions are met:

(1) The landfill was never subject to the requirement to install and operate a gas collection and control system under §62.16714; or

(2) The landfill meets the conditions for control system removal specified in §62.16714(f).

(g) When an MSW landfill subject to this subpart is in the closed landfill subcategory, the owner or operator is not subject to the following reports of this subpart, provided the owner or operator submitted these reports under the provisions of 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing 40 CFR part 60, subpart Cc, on or before July 17, 2014:

(1) Initial design capacity report specified in §62.16724(a).

(2) Initial or subsequent NMOC emission rate report specified in §62.16724(c), provided that the most recent NMOC emission rate report indicated the NMOC emissions were below 50 megagrams per year.

(3) Collection and control system design plan specified in §62.16724(d).

(4) Closure report specified in §62.16724(f).

(5) Equipment removal report specified in §62.16724(g).

(6) Initial annual report specified in §62.16724(h).

(7) Initial performance test report in §62.16724(i).

**SECTION E. Source Group Restrictions.**

(h) When an MSW landfill subject to this subpart is a legacy controlled landfill, as defined in §62.16730, the owner or operator is not subject to the following reports of this subpart, provided the owner or operator submitted these reports under 40 CFR part 60, subpart WWW; subpart GGG of this part; or a state plan implementing 40 CFR part 60, subpart Cc on or before June 21, 2021.

- (1) Initial design capacity report specified in §62.16724(a).
- (2) Initial or subsequent NMOC emission rate report specified in §62.16724(c).
- (3) Collection and control system design plan specified in §62.16724(d).
- (4) Initial annual report specified in §62.16724(h).
- (5) Initial performance test report in §62.16724(i).

**# 010 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16712]**

**Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014**  
**Compliance schedule and increments of progress.**

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment that is capable of meeting the emission standards of § 62.16714 must be completed within 30 months after the date an NMOC emission rate report shows NMOC emissions equal or exceed 34 megagrams per year; or within 30 months after the date of the most recent NMOC emission rate report that shows NMOC emissions equal or exceed 34 megagrams per year, if Tier 4 surface emissions monitoring (SEM) shows a surface emission concentration of 500 parts per million methane or greater. Legacy controlled landfills who have not yet reached increment 5 (full compliance) must demonstrate compliance with any remaining increments of progress on this schedule. However, they must use the date of their first report submitted under 40 CFR part 60, subpart WWW, 40 CFR part 62, subpart GGG or a state plan implementing 40 CFR part 60, subpart Cc showing NMOC emissions at or above 50 megagrams. The owner or operator must follow the requirements in paragraphs (a) through (d) of this section.

(a) Increments of progress. The owner or operator of a designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year must achieve the increments of progress specified in paragraphs (a)(1) through (5) of this section to install air pollution control devices to meet the emission standards specified in § 62.16714(b) and (c) of this subpart. Refer to § 62.16730 for a definition of each increment of progress.

(1) Submit control plan. Submit a final control plan (collection and control system design plan) according to the requirements of § 62.16724(d).

(2) Award contract(s). Award contract(s) to initiate on-site construction or initiate on-site installation of emission collection and/or control equipment.

(3) Initiate on-site construction. Initiate on-site construction or initiate on-site installation of emission collection and/or control equipment as described in the EPA-approved final control plan.

(4) Complete on-site construction. Complete on-site construction and installation of emission collection and/or control equipment.

(5) Achieve final compliance. Complete construction in accordance with the design specified in the EPA-approved final control plan and connect the landfill gas collection system and air pollution control equipment such that they are fully operating. The initial performance test must be conducted within 180 days after the date the facility is required to achieve final compliance. For a legacy controlled landfill, the initial or most recent performance test conducted to comply with 40 CFR part 60, subpart WWW, subpart GGG of this part, or a state plan implementing 40 CFR part 60, subpart Cc is sufficient for compliance with this part. The test report does not have to be resubmitted.

(b) Compliance date. For each designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year (50 megagrams per year for closed landfill subcategory), planning, awarding of contracts, and installation of municipal solid waste landfill air emission collection and control equipment capable of meeting the standards in § 62.16714(b) and (c) must be accomplished within 30 months after the date the initial emission rate report (or the annual emission rate report) first shows that the NMOC emission rate equals or exceeds 34 megagrams per year (50 megagrams per year for closed landfill subcategory), except as provided in § 62.16712(d).

**SECTION E. Source Group Restrictions.**

(c) Compliance schedules. The owner or operator of a designated facility that has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and a NMOC emission rate greater than or equal to 34 megagrams per year (50 megagrams per year for closed landfill subcategory) must achieve the increments of progress specified in paragraphs (a)(1) through (5) of this section according to the schedule specified in paragraph (c)(1), (2), or (d) of this section.

(1) Achieving Increments of Progress. The owner or operator of a designated facility must achieve the increments of progress according to the schedule in table 1 of this subpart. Once this subpart becomes effective, any designated facility to which this subpart applies will remain subject to the schedule in table 1 if a subsequently approved state or tribal plan contains a less stringent schedule, (i.e., a schedule that provides more time to comply with increments 1, 4 and/or 5 than does this Federal plan).

(2) Tier 4. The owner or operator of a designated facility that is using the Tier 4 procedures specified in § 62.16718(a)(6) must achieve the increments of progress according to the schedule in table 1 of this subpart.

(d) Alternative dates. For designated facilities that are subject to the schedule requirements of paragraph (c)(1) of this section, the owner or operator (or the state or tribal air pollution control authority) may submit to the appropriate EPA Regional Office for approval alternative dates for achieving increments 2 and 3.

[86 FR 27770, May 21, 2021, as amended at 87 FR 8203, Feb. 14, 2022]

**# 011 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16728]  
Subpart OOO - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014  
Specifications for active collection systems.**

Follow the specifications for active collection systems in this section.

(a) Each owner or operator seeking to comply with §62.16714(b) 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.

(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.

(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 §62.16726(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:

$$Q_i = (2 * k * L_o * M_i) \text{ (CNMOC)} \text{ (} 3.6 \times 10^{-9} \text{)}$$

[For the equation & complete notation for Equation 7, refer to § 62.16728(a)(3)(ii)(A) in [www.ecfr.gov](http://www.ecfr.gov).]

Where:

$Q_i$  = NMOC emission rate from the  $i$ th section, megagrams per year.

$k$  = Methane generation rate constant,  $\text{year}^{-(1)}$ .

**SECTION E. Source Group Restrictions.**

Lo = Methane generation potential, cubic meters per megagram solid waste.  
 Mi = Mass of the degradable solid waste in the ith section, megagram.  
 ti = Age of the solid waste in the ith section, years.  
 CNMOC = Concentration of NMOC, parts-per-million by volume.  
 $3.6 \times 10^{-9}$  = Conversion factor.

(B) If the owner or 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 §62.16718 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, Lo, and CNMOC provided in §62.16718 or the alternative values from §62.16718 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 §62.16714(b) 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 §62.16714(c) must convey the landfill gas to a control system in compliance with §62.16714(c) 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 the following procedures:

(1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exist, 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 §62.16720(a)(1).

**# 012 [40 CFR Part 62 Approval and Promulgation of State Plans §40 CFR 62.16730]****Subpart 000 - Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014****Definitions.**

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and in subparts A and B of 40 CFR part 60 of this chapter.

ACHIEVE FINAL COMPLIANCE means to connect and operate the collection and control system as specified in the final control plan. Within 180 days after the date the landfill is required to achieve final compliance, the initial performance test must be conducted.

**SECTION E. Source Group Restrictions.**

**ACTIVE COLLECTION SYSTEM** means a gas collection system that uses gas mover equipment.

**ACTIVE LANDFILL** means a landfill in which solid waste is being placed or a landfill that is planned to accept waste in the future.

**ADMINISTRATOR** means:

- (1) For municipal solid waste landfills covered by the federal plan, the Administrator of the EPA or his/her authorized representative (e.g., delegated authority);
- (2) For municipal solid waste landfills covered by an approved state plan, the director of the state air pollution control agency or his/her authorized representative.

**AWARD CONTRACT** means the MSW landfill owner or operator enters into legally binding agreements or contractual obligations that cannot be canceled or modified without substantial financial loss to the MSW landfill owner or operator. The MSW landfill owner or operator may award a number of contracts to install the collection and control system. To meet this increment of progress, the MSW landfill owner or operator must award a contract or contracts to initiate on-site construction or installation of the collection and control system.

**CLOSED LANDFILL** means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 60.7(a)(4) of this chapter. Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

**CLOSED AREA** means a separately lined area of an MSW landfill in which solid waste is no longer being placed. If additional solid waste is placed in that area of the landfill, that landfill area is no longer closed. The area must be separately lined to ensure that the landfill gas does not migrate between open and closed areas.

**CLOSED LANDFILL SUBCATEGORY** means a closed landfill that has submitted a closure report as specified in §62.16724(f) on or before September 27, 2017.

**CLOSURE** means that point in time when a landfill becomes a closed landfill.

**COMMERCIAL SOLID WASTE** means all types of solid waste generated by stores, offices, restaurants, warehouses, and other nonmanufacturing activities, excluding residential and industrial wastes.

**COMPLETE ON-SITE CONSTRUCTION** means that all necessary collection system components and air pollution control devices identified in the final control plan are on site, in place, and ready for operation.

**CONTROLLED LANDFILL** means any landfill at which collection and control systems are required under this subpart as a result of the NMOC emission rate. The landfill is considered controlled at the time a collection and control system design plan is prepared in compliance with §62.16714(e)(2). Controlled landfills also includes those landfills that meet the definition of legacy controlled landfills, as defined in this subpart.

**CORRECTIVE ACTION ANALYSIS** means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

**DESIGN CAPACITY** means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the state, local, or tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. 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 megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

**DISPOSAL FACILITY** means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

**EMISSION RATE CUTOFF** means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

**ENCLOSED COMBUSTOR** means an enclosed firebox which maintains a relatively constant limited peak temperature generally using a limited supply of combustion air. An enclosed flare is considered an enclosed combustor.

**EPA APPROVED STATE PLAN** means a state plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B or Ba to implement and enforce 40 CFR part 60, subpart Cf. An approved state plan becomes effective on the date specified in the document published in the FEDERAL REGISTER announcing EPA's approval.

**SECTION E. Source Group Restrictions.**

FLARE means an open combustor without enclosure or shroud.

FINAL CONTROL PLAN (COLLECTION AND CONTROL SYSTEM DESIGN PLAN) means a plan that describes the collection and control system that will capture the gas generated within an MSW landfill. The collection and control system design plan must be prepared by a professional engineer and must describe a collection and control system that meets the requirements of §62.1614(b) and (c). The final control plan must contain engineering specifications and drawings of the collection and control system. The final control plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions of §§62.16716 through 62.16726 proposed by the owner or operator. The final control plan must either conform with the specifications for active collection systems in §62.16728 or include a demonstration that shows that based on the size of the landfill and the amount of waste expected to be accepted, the system is sized properly to collect the gas, control emissions of NMOC to the required level and meet the operational standards for a landfill.

GAS MOVER EQUIPMENT means the equipment (i.e., fan, blower, compressor) used to transport landfill gas through the header system.

GUST means the highest instantaneous wind speed that occurs over a 3-second running average.

INDIAN COUNTRY means all land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation; all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state; and all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

INITIATE ON-SITE CONSTRUCTION means to begin any of the following: Installation of the collection and control system to be used to comply with the emission limits as outlined in the final control plan; physical preparation necessary for the installation of the collection and control system to be used to comply with the final emission limits as outlined in the final control plan; or, alteration of an existing collection and control system to be used to comply with the final emission limits as outlined in the final control plan.

HOUSEHOLD WASTE means any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including, but not limited to, single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). Household waste does not include fully segregated yard waste. Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities. Household waste does not include construction, renovation, or demolition wastes, even if originating from a household.

INDUSTRIAL SOLID WASTE means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the RCRA, parts 264 and 265 of this chapter. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

INTERIOR WELL means any well or similar collection component located inside the perimeter of the landfill waste. A perimeter well located outside the landfilled waste is not an interior well.

LANDFILL means an area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well, or waste pile as those terms are defined under §257.2 of this title.

LATERAL EXPANSION means a horizontal expansion of the waste boundaries of an existing MSW landfill. A lateral expansion is not a modification unless it results in an increase in the design capacity of the landfill.

LEACHATE RECIRCULATION means the practice of taking the leachate collected from the landfill and reapplying it to the landfill by any of one of a variety of methods, including pre-wetting of the waste, direct discharge into the working face, spraying, infiltration ponds, vertical injection wells, horizontal gravity distribution systems, and pressure distribution systems.

LEGACY CONTROLLED LANDFILL means any MSW landfill subject to this subpart that submitted a collection and control system design plan prior to May 21, 2021 in compliance with §60.752(b)(2)(i) of this chapter, the Federal plan at subpart GGG of this part, or a state/tribal plan implementing 40 CFR part 60, subpart Cc of this chapter, depending on which regulation was applicable to the landfill. This definition applies to those landfills that completed construction and began operations of the GCCS and those that are within the 30-month timeline for installation and start-up of a GCCS according to §60.752(b)(2)(ii) of

**SECTION E. Source Group Restrictions.**

this chapter, the Federal plan at subpart GGG of this part, or a state/tribal plan implementing 40 CFR part 60, subpart Cc.

**MODIFICATION** means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity as of July 17, 2014. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

**MUNICIPAL SOLID WASTE LANDFILL or MSW LANDFILL** means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA, Subtitle D wastes (§257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste, and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

**MUNICIPAL SOLID WASTE LANDFILL EMISSIONS or MSW LANDFILL EMISSIONS** means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

**NMOC** means nonmethane organic compounds, as measured according to the provisions of §62.16718.

**NEGATIVE DECLARATION LETTER** means a letter to EPA declaring that there are no existing MSW landfills in the state or that there are no existing MSW landfills in the state that must install collection and control systems according to the requirements of 40 CFR part 60, subpart Cf.

**NONDEGRADABLE WASTE** means any waste that does not decompose through chemical breakdown or microbiological activity. Examples are, but are not limited to, concrete, municipal waste combustor ash, and metals.

**PASSIVE COLLECTION SYSTEM** means a gas collection system that solely uses positive pressure within the landfill to move the gas rather than using gas mover equipment.

**PROTECTORATE** means American Samoa, the Commonwealth of Puerto Rico, the District of Columbia, Guam, the Northern Mariana Islands, and the Virgin Islands.

**ROOT CAUSE ANALYSIS** means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of positive pressure at a wellhead.

**SLUDGE** means the term sludge as defined in 40 CFR 258.2.

**SOLID WASTE** means the term solid waste as defined in 40 CFR 258.2.

**STATE** means any of the 50 United States and the protectorates of the United States.

**STATE PLAN** means a plan submitted pursuant to section 111(d) of the Clean Air Act and subpart B of part 60 of this chapter that implements and enforces subpart Cf of 40 CFR part 60 of this chapter.

**SUFFICIENT DENSITY** means any number, spacing, and combination of collection system components, including vertical wells, horizontal collectors, and surface collectors necessary to maintain emission and migration control as determined by measures of performance set forth in this part.

**SUFFICIENT EXTRACTION RATE** means a rate sufficient to maintain a negative pressure at all wellheads in the collection system without causing air infiltration, including any wellheads connected to the system as a result of expansion or excess surface emissions, for the life of the blower.

**TREATED LANDFILL GAS** means landfill gas processed in a treatment system as defined in this subpart.

**TREATMENT SYSTEM** means a system that filters, de-waters, and compresses landfill gas for sale or beneficial use.

**TRIBAL PLAN** means a plan submitted by a Tribal Authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 that implements and enforces 40 CFR part 60, subpart Cf.

**UNTREATED LANDFILL gas** means any landfill gas that is not treated landfill gas.

[86 FR 27770, May 21, 2021, as amended at 87 FR 8203, Feb. 14, 2022]





**SECTION E. Source Group Restrictions.**

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



**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Title V facility.



**SECTION G. Emission Restriction Summary.**

Source Id	Source Description		Emission Limit	Pollutant
101	LANDFILL			
	500.000	PPMV	dry basis	SOX
	0.020	gr/DRY FT3		TSP

**Site Emission Restriction Summary**

Emission Limit	Pollutant
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**SECTION H. Miscellaneous.**

- (a) The Capacity/Hour numbers listed on Page 4 and provided in Section D of this permit for individual sources are for informational purposes only and are not to be considered enforceable limits. Enforceable emission limits are listed in the Restriction section for each source. They are also summarized for informational purposes only in Section G.
- (b) Permit Terminology
- (1) Source ID: Department assigned ID number for the source
  - (2) Source Name: Department assigned name for the source
  - (3) Capacity: The maximum capacity for the source (not a limit)
  - (4) Fuel/Material: The fuel/material assigned to SCC for the source
  - (5) Schematics: FML (Fuel material location); Comb (Combustion source); Proc (Process); CD (Control device); EP (Emission point)
  - (6) Pollutants: NMOC (Non Methane Organic Compounds); TSP (Total Suspended Particulate); VOC (Volatile Organic Compounds)
- (c) For the purpose of this permit, Source 101 (Landfill) consists of the following (updated as of 2017 renewal):
- (1) Closed landfill - less than 0.5 million ton capacity (based on facility's waste-in-place values)
  - (2) Existing landfill - Cells 1 to 9, 2.85 million ton capacity
  - (3) Western Expansion - Cells 10 to 19, 31.81 million ton capacity, to be constructed (PA 42-174G)

For the purpose of this permit, Source 102 (Leachate Treatment Plant - 30,000 GPD) consists of the following:

1. [Reserved]
2. Feed pH Adjustment & Settling Tanks
  - a) 2 Settling Tanks (1,056 gallons)
3. Rochem Model 9142 Leachate Treatment System (two stage R/O unit)
4. Rochem Model 9532 High Pressure Leachate Treatment System (single stage R/O unit)
5. Permeate Storage Tanks (1,000 gallons each)
6. [Reserved]
7. [Reserved]
8. Intermediate Concentrate Storage Tank (1,000 gallons)
9. Post Treatment Storage (Lagoons)

(d) Insignificant activities

- (1) Degreaser unit (Safety-Kleen) - previously Source 103, this source is treated as an insignificant activity starting with the 2017 renewal permit because it now uses a degreasing solvent with VOC content less than 5% (by weight) and is no longer subject to 25 Pa. Code § 129.63.

(e) Information on Title V status and federal requirements

- (1) The facility has Title V permit because of rulemaking (i.e., § 40 CFR 62.16711 (e)).
- (2) Subpart AAAA: Under this subpart, the facility, at its current operation, is an existing source and an area HAP source. To account for increases in HAP emissions from future expansions, provisions are included in the operating permit.
- (3) Subpart OOO: Several provisions noted as 'Not applicable' or 'Does not apply' are omitted as they currently do not apply to the facility. These provisions may eventually be incorporated into the permit depending on changes in operations performed at the facility.

(f) Implementation of § 40 CFR 62 Subpart OOO

- (1) § 40 CFR Part 62 Subpart OOO (Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014) is incorporated to the operating permit following its effective date in the CFR (July 7, 2021).
- (2) As the Western Expansion of the McKean County Landfill has not yet started as of this permit reissuance (November XX, 2023), the facility is subject to Subpart OOO.

(g) Permit history

- (1) This Operating Permit No. TV 42-00174 was originally issued on May 24, 2002, effective on June 1, 2002, and expires on April 30, 2007. This Operating Permit was administratively amended on August 30, 2005 for change of ownership from McKean County Solid Waste Authority to Rustick, LLC.
- (2) This Operating Permit was renewed on October 10, 2007 and expires on September 30, 2012. As part of the renewal, the conditions from Plan Approval 42-174E were incorporated into the Permit.
- (3) This Permit was administratively amended on December 18, 2009 to incorporate the conditions from plan approval 42-174F.
- (4) This Permit was administratively amended on February 22, 2011 with an effective date of February 23, 2011 to incorporate the name change to Casella Waste Management of PA Inc.
- (5) This permit was renewed on December 11, 2012.
- (6) This permit was administratively amended on September 23, 2015 to incorporate the requirements of plan approval 42-174G.
- (7) This permit was renewed on December 1, 2017. Incorporated § 40 CFR 60 Subpart Cf. See paragraph (f) above.
- (8) This permit was amended on July 7, 2021 to incorporate the requirements of plan approval 42-174H.
- (9) This permit was renewed on November 28, 2023. Incorporated § 40 CFR 62 Subpart OOO.



\*\*\*\*\* End of Report \*\*\*\*\*

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