LANCASTER CNTY SWMA/FREY FARM CRESWELL LDFL



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: December 1, 2021 Effective Date: January 1, 2022

Expiration Date: December 31, 2026

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: 36-05081

Federal Tax Id - Plant Code: 23-6006036-1

Owner Information Name: LANCASTER CNTY SWMA Mailing Address: 1299 HARRISBURG AVE LANCASTER, PA 17603-2515 Plant Information Plant: LANCASTER CNTY SWMA/FREY FARM CRESWELL LDFL Location: 36 Lancaster County 36938 Manor Township SIC Code: 4953 Trans. & Utilities - Refuse Systems Responsible Official Name: ROBERT B ZORBAUGH Title: CHIEF EXECUTIVE OFFICER Phone: (717) 397 - 9968 Email: rzorbaugh@lcswma.org Permit Contact Person Name: DANIEL D BROWN Title: ENVIRON COMPLIANCE MGR Phone: (717) 553 - 5864 Email: dbrown@lcswma.org [Signature] WILLIAM R. WEAVER, SOUTHCENTRAL REGION AIR PROGRAMMANAGER



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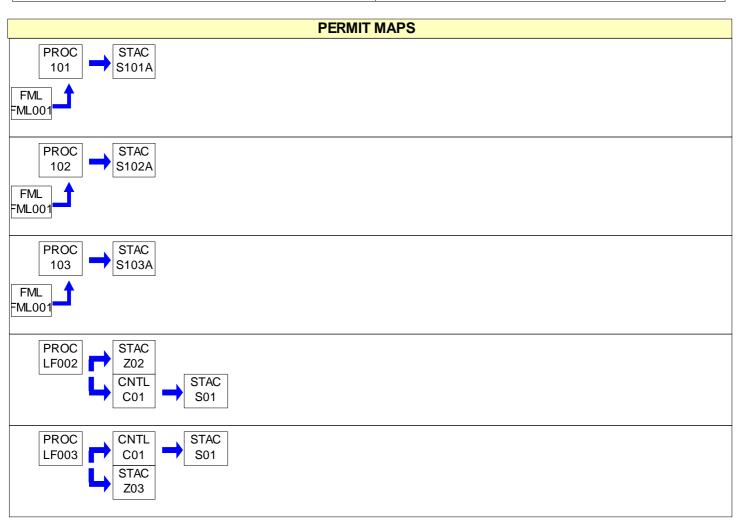
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SECTION A. Site Inventory List

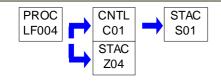
Source I	D Source Name	Capacity/Throughput	Fuel/Material
101	LASA PUMP STATION EMERGENCY GENERATOR		
102	CRESWELL PUMP STATION EMERGENCY GENERATOR		
103	FFVE EMERGENCY GENERATOR		
LF002	LANDFILL - FREY FARM SITE	245.000 Tons/HR	SOLID WASTE
LF003	LANDFILL - CRESWELL SITE		
LF004	FREY FARM VERTICAL EXPANSION	104.200 Tons/HR	SOLID WASTE
C01	ENCLOSED GROUND FLARE-LCSWMA		
FML001	DIESEL FUEL		
S01	FLARE STACK		
S101A	GENERATOR STACK		
S102A	GENERATOR STACK		
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PERMIT MAPS



DEP Auth ID: 1334424 DEP PF ID: 522092





#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.

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

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

Inspection and Entry

- (a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:
- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
 - (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.
- (b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.
- (c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

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

Compliance Requirements

- (a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:
 - (1) Enforcement action
 - (2) Permit termination, revocation and reissuance or modification
 - (3) Denial of a permit renewal application
- (b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.
- (c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

#009 [25 Pa. Code § 127.512(c)(2)]

Need to Halt or Reduce Activity Not a Defense

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



#010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]

Duty to Provide Information

- (a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.
- (b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

#011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]

Reopening and Revising the Title V Permit for Cause

- (a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.
- (b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:
- (1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.
- (2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.
- (3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- (4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.
- (d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#012 [25 Pa. Code § 127.543]

Reopening a Title V Permit for Cause by EPA

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

#013 [25 Pa. Code § 127.522(a)]

Operating Permit Application Review by the EPA

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

R3_Air_Apps_and_Notices@epa.gov

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





#014 [25 Pa. Code § 127.541]

Significant Operating Permit Modifications

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

R3_Air_Apps_and_Notices@epa.gov

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

#015 [25 Pa. Code §§ 121.1 & 127.462]

Minor Operating Permit Modifications

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

R3_Air_Apps_and_Notices@epa.gov

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

#016 [25 Pa. Code § 127.450]

Administrative Operating Permit Amendments

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

R3_Air_Apps_and_Notices@epa.gov

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

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

[25 Pa. Code § 127.512(b)] #017

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:
 - (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 NOx from a single source during the term of the permit and 5 tons of NOx 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 PM10 from a single source during the term of the permit and 3.0 tons of PM10 at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:
- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
 - (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.



- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
 - (4) Space heaters which heat by direct heat transfer.
 - (5) Laboratory equipment used exclusively for chemical or physical analysis.
 - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.
- (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
- (3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.
- (e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (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 Air Section 1650 Arch Street, 3ED21 Philadelphia, PA 19103

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

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

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

Sampling, Testing and Monitoring Procedures

- (a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.
- (b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

#024 [25 Pa. Code § 127.513]

Compliance Certification

- (a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:
- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.
- (b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of





the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3_APD_Permits@epa.gov.

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

Recordkeeping Requirements

- (a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:
 - (1) The date, place (as defined in the permit) and time of sampling or measurements.
 - (2) The dates the analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of the analyses.
 - (6) The operating conditions as existing at the time of sampling or measurement.
- (b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.
- (c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

#026 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]

Reporting Requirements

- (a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.
- (b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.
- (c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.
- (d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.



#027 [25 Pa. Code § 127.3]

Operational Flexibility

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

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

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

Risk Management

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:
- (1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:
- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
- (2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.
- (d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:
- (1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,
- (2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.





SECTION B. General Title V Requirements

- (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.

#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

No person may emit any fugitive air contaminant into the outdoor atmosphere from the sources other than the following:

- (1) Construction or demolition of buildings or structures.
- (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
 - (4) Clearing of land.
 - (5) Stockpiling of materials.
 - (6) Open burning operations
- (7) Sources and classes of sources other than those identified in paragraphs (1) (6), above for which the operator has obtained a determination from the Department in accordance with 25 Pa Code Section 123.1(b) 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 standard.

002 [25 Pa. Code §123.2]

Fugitive particulate matter

No person may permit fugitive particulate matter emissions into the outdoor atmosphere from a source specified in the preceding permit condition #001, if such emissions are visible at the point the emissions pass outside the person's property.

003 [25 Pa. Code §123.31]

Limitations

No person may emit any malodorous air contaminants into the outdoor atmosphere from any source in such a manner that the malodors are detectable outside the property of the permitee on whose land the source is being operated.

004 [25 Pa. Code §123.41]

Limitations

No person shall permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emissions is either of the following:

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

005 [25 Pa. Code §123.42]

Exceptions

The emission limitations of site level condition #004 shall not appy when:

- (a) The presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) The emission results from the operation of equipment used soley to train and test persons in observing the opacity of visible emissions.
 - (c) The emission results from sources specified in site level condition #001.





SECTION C. Site Level Requirements

006 [25 Pa. Code §123.43]

Measuring techniques

The permittee shall measure visible emissions 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 as per EPA Method 9, or with the aid of any device approved by the Department.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall conduct a weekly inspection around the plant periphery during daylight hours when the plant is in production to detect any visible emissions, fugitive visible emissions, and odor emissions as follows:

- (a) Visible emissions in excess of the limits stated in Site Level, condition #004. Visible emissions may be measured according to the methods specified in Site Level, condition #006, or as an alternative, plant personnel who observe such emissions may report the incident of visible emissions to the Department within two (2) hours of each incident, and make arrangements for a certified observer to verify the visible emissions.
- (b) The presence of fugitive emissions visible beyond the plant boundaries as stated in Site Level condition # 002.
- (c) The presence of malodorous air emissions beyond the plant boundaries as stated in Site Level condition #003.

008 [25 Pa. Code §129.14]

Open burning operations

- (a) No person shall permit the open burning of material in such 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.
- (b) Exceptions: The requirements of subsections (a) do not apply where the open burning operations result from:
- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
 - (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
 - (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
 - (4) A fire set solely for recreational or ceremonial purposes.
 - (5) A fire set solely for cooking food.
- (c) This permit condition does not constitute authorization to burn solid waste in violation of Section 610(3) of the Solid Waste Management Act (SWMA), contained at 35 P.S. Section 6018.610(3), or any other provision of the SWMA.





SECTION C. Site Level Requirements

II. TESTING REQUIREMENTS.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Department reserves the right to require exhaust stack testing of sources as necessary during the permit term to verify emissions for purposes including emission fees, malfunctions or permit condition violations.

III. MONITORING REQUIREMENTS.

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) In order to prevent offsite migration of landfill gas, the gas collection system shall be designed to collect gas from the maximum possible area of the landfill and to accommodate the maximum gas generation rate of the landfill.
- (b) The collection system shall be operated and maintained to ensure that the gas collection rate is no less than the gas generation rate. In order to assure compliance with this requirement, no positive pressure shall be measurable at the wells. Each well shall be equipped with a throttling valve to enable adjustment of the gas collection rate, if necessary.
- (c) In order to monitor underground activities within the waste mass, the permittee shall monitor and record the temperature at each of the active extraction wells on a monthly basis.
- (d) There shall be no landfill gas leaks which result in concentrations of 500 ppmv or more measured as propane (or 1375 ppmv or more measured as methane) at a distance of 0.5 inches from any equipment that operates under positive pressure such as the blower, the control device or treatment system, above ground piping connecting these components and applicable fittings and valves. Non-repeatable and momentary readings shall not be considered. The permittee shall perform the monitoring on a quarterly basis.
- (e) The permittee shall retain all records of the above monitoring for a period of five (5) years and make the records available to the Department upon request.

IV. RECORDKEEPING REQUIREMENTS.

011 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) The permittee shall maintain a logbook for recording the status of odorous air contaminants, visible emissions, and visible fugitive emission exceedences.
- (b) The logbook shall include the name of the company representative, the date and time the monitoring was conducted, wind direction and actions taken to correct any problems encountered.

Note: A log entry is required for each of the weekly inspections regardless of whether or not any visible emissions, fugitive emissions, or odorous emissions are detected.

V. REPORTING REQUIREMENTS.

012 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) The permittee shall report malfunctions which occur at the facility to the DEP as defined in 40 CFR Section 63.2, a malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. Malfunctions shall be reported as follows:
- (1) Any malfunction which poses an imminent danger to the public health, safety, welfare and environment, shall be immediately reported to the Department by telephone. The telephone report of such malfunctions shall occur no later than two (2) hours after the permittee is aware of the malfunction. The permittee shall submit a written report of instances of such malfunctions to the Department within three (3) days of the telephone report.
- (2) Unless otherwise required by this permit, any other malfunction that is not subject to the reporting requirements of paragraph (1) above, shall be reported to the Department, in writing, within five (5) days of discovery of the malfunction.





SECTION C. Site Level Requirements

(b) Malfunctions shall be reported to the Department at the following address:

PADEP Air Quality Program 909 Elmerton Avenue Harrisburg, PA 17110

(c) Telephone reports can be made to the Reading District Office at (610)916-0100 during normal business hours or to the Department's Emergency Hotline at any time. The Emergency Hotline phone number is changed/updated periodically. The current Emergency Hotline phone number can be found at:

https://www.dep.pa.gov/About/Regional/SouthcentralRegion/Pages/default.aspx.

VI. WORK PRACTICE REQUIREMENTS.

013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) Open storage of leachate and/or condensate from a landfill permits the release of organic compounds which may cause malodors, are toxic, and/or contribute to the state's ozone nonattainment problem. No open storage (ponding or open top tanks) of landfill leachate and/or condensate shall be permitted unless unusual circumstances are encountered. In which case unusual circumstances must have the concurrence of the Department. Uncontrolled stripping of VOCs from the leachate or condensate and/or spray irrigation will not normally be allowed.
- (b) Fugitive particulate matter emissions from the landfill shall be reasonably controlled through the following:
- (1) Parking lots/areas and the landfill access roadways from the public highway to the landfill and other haul roads inside the landfill shall be paved, maintained, and cleaned by vacuum sweeping or any other approved means. All parking lots/areas shall be cleaned at least weekly and the access roadways cleaned at least daily.
- (2) The access roadways if unpaved at the unloading areas (active cells) shall have a crown so that water runs off and does not pool. Weather permitting, water or other chemical dust suppressants shall be applied to the unpaved road surface to reduce fugitive dusts. Water, if used, shall be applied at least twice a day. Chemical dust suppressants, if used, shall be applied as needed, but at least once a month.
- (3) Weather permitting, water or other chemical dust suppressants shall be applied on the shoulder of access roadways and the shoulder of the public highway for a distance of 500 feet in both directions. Water, if used, shall be applied at least twice a day. Chemical dust suppressants, if used, shall be applied at least once a month. Application of dust suppressants on the public highway shall be done in accordance the appropriate Pa. Department of Transportation (Penn DOT) Bulletins.
- (4) No waste oil shall be used as dust suppressant for the unpaved surface.
- (5) Earth or other material deposited by trucking or other means on the paved roadways, including public highway, shall be promptly removed from the paved roadways.
- (6) Upon leaving the landfill, the undercarriage, wheels and chassis of the vehicles, which were used to transport wastes and earth shall be washed to prevent earthen carryout onto roadways.
- (7) All trucks entering the landfill shall be covered.
- (8) A speed limit of 15 miles per hour shall be observed on all paved access roadways and 10 miles per hour on all unpaved areas. Speed limit signs shall be posted consistent with the requirements of PennDOT (overall dimension 30" x 24", "SPEED LIMIT" in 4" letters and 10" numerals).





SECTION C. Site Level Requirements

VII. ADDITIONAL REQUIREMENTS.

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit within thirty days of 01/01/2022 a certificate of compliance with all permit terms and conditions set forth in this Title V permit as required under condition #024 of section B of this permit, and annually thereafter.

015 [25 Pa. Code §127.513]

Compliance certification.

The permittee shall forward EPA the annual compliance certification report as defined in Condition #024 of Section B, electronically, in lieu of a hard copy version, to the email address: R3_APD_Permits@epa.gov

VIII. COMPLIANCE CERTIFICATION.

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

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

*** Permit Shield In Effect ***

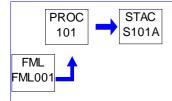


SECTION D. Source Level Requirements

Source ID: 101 Source Name: LASA PUMP STATION EMERGENCY GENERATOR

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 003



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***

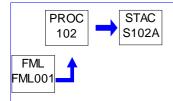


SECTION D. Source Level Requirements

Source ID: 102 Source Name: CRESWELL PUMP STATION EMERGENCY GENERATOR

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 002



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***



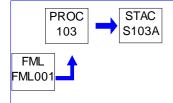


SECTION D. Source Level Requirements

Source ID: 103 Source Name: FFVE EMERGENCY GENERATOR

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 002



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***





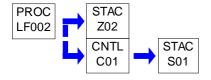
SECTION D. Source Level Requirements

Source ID: LF002 Source Name: LANDFILL - FREY FARM SITE

Source Capacity/Throughput: 245.000 Tons/HR SOLID WASTE

Conditions for this source occur in the following groups: GROUP 001

GROUP 004 GROUP 006 GROUP 007



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***



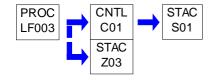
SECTION D. Source Level Requirements

Source ID: LF003 Source Name: LANDFILL - CRESWELL SITE

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 001

GROUP 004 GROUP 006



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

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

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***



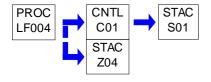
SECTION D. **Source Level Requirements**

Source ID: LF004 Source Name: FREY FARM VERTICAL EXPANSION

> Source Capacity/Throughput: 104.200 Tons/HR SOLID WASTE

Conditions for this source occur in the following groups: GROUP 001

GROUP 004 GROUP 006 GROUP 007



RESTRICTIONS.

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

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).

RECORDKEEPING REQUIREMENTS. IV.

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

REPORTING REQUIREMENTS.

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

WORK PRACTICE REQUIREMENTS. VI.

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

ADDITIONAL REQUIREMENTS. VII.

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

*** Permit Shield in Effect. ***





SECTION E. Source Group Restrictions.

Group Name: GROUP 001

Group Description: Landfill BAT Requirements

Sources included in this group

ID Name
LF002 LANDFILL - FREY FARM SITE
LF003 LANDFILL - CRESWELL SITE

LF004 FREY FARM VERTICAL EXPANSION

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The nonmethane organic compound (NMOCs) emissions at the outlet of the flare shall be reduced by 98% by weight or reduced to a concentration less than 20 parts per million by volume, dry basis, reported as hexane at 3% oxygen.
- (b) The enclosed flare shall be operated at all times with no visible flame emanating from the flare.
- (c) The flare shall be operated at a rolling 3-hour average temperature that is not more than 50°F below the temperature established during the most recent compliant performance test that demonstrated compliance with the destruction/removal efficiency.
- (d) The permittee shall operate and maintain an automated pilot ignition system designed and equipped to automatically ignite the the pilot after sensing that the engines are off-line.
- (e) The permittee shall operate and maintain an automatic shutoff mechanism for the flare that will immediately stop the flow of gases in the event of that a flame out occurs. During restart or startup, there shall be sufficient flow of auxiliary fuel.
- (f) The permittee shall operate and maintain the flare in accordance with the manufacturer's specifications. A log shall be kept on all tune-ups and maintenance performed on the flare. The records shall be kept for a period of 5-years and be made available to the Department upon request.

II. TESTING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a)) If requested by DEP during this permit term, the permittee shall demonstrate compliance with Condition #001 above, by testing the enclosed ground flare for NMOCs to determine the destruction efficiency or outlet concentration prior to submitting the permit renewal application. The test shall utilize methodology outlined in 40 CFR 60.754, 25 Pa. Code Section 139 and DEP's Source Testing Manual or other means approved by the DEP.
- (b) Pursuant to 25 Pa. Code § 139.3 at least 90 calendar days prior to commencing an emissions testing program, unless otherwise approved in writing by DEP, a test protocol shall be submitted to the Department for review and approval. Unless otherwise approved in writing by DEP, the permittee shall not conduct the test that is the subject of the protocol, until the protocol has been approved by DEP.
- (c) Pursuant to 25 Pa. Code § 139.3 at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
- (d) Pursuant to 25 Pa. Code Section 139.53(a)(3) within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office indicating the completion date of the on-site testing.
- (e) Pursuant to 40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g) a complete test report shall be





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submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program. For those tests being conducted pursuant to 40 CFR Part 61, a complete test report shall be submitted within 31 days after completion of the test.

(f) Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the

first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

- 1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the
- 2. Permit number(s) and condition(s) which are the basis for the evaluation.
- 3. Summary of results with respect to each applicable permit condition.
- 4. Statement of compliance or non-compliance with each applicable permit condition.
- (g) Pursuant to 25 Pa. Code § 139.3 to all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (h) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (i) Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through https://www.depgreenport.state.pa.us/ecomm/Login.jsp when it becomes available. If internet submittal cannot be accomplished, one digital copy of each submittal shall be made to each of the following:

Regional Office:

Digital copy: RA-epscstacktesting@pa.gov

Bureau of Air Quality:

Digital copy: RA-epstacktesting@pa.gov

- (i)(1) A complete paper copy of each submittal shall be made to PA DEP, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468.
- (j) The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

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: GROUP 002

Group Description: RICE-40 CFR Part 60, Subpart IIII

Sources included in this group

ID	Name
102	CRESWELL PUMP STATION EMERGENCY GENERATOR
103	FFVE EMERGENCY GENERATOR

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.

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
Am I subject to this subpart?

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

- § 60.4200 Am I subject to this subpart?
- (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- (a)(1) [NA NOT AN ENGINE MANUFACTURER]
- (a)(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:
- (a)(2)(i) Manufactured after April 1, 2006, and are not fire pump engines, or
- (a)(2)(ii) [NA NOT FIRE PUMP ENGINES]





- (a)(3) [NA NOT MODIFIED OR RECONSTRUCTED]
- (a)(4) The provisions of § 60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.
- (b) [NA-TEST CELL NOT INVOLVED]
- (c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.
- (d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C, except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
- (e) [NA NOT TEMPORARY REPLACEMENT UNITS]

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011; 86 FR 34357, June 29, 2021]

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

[NA - NOT AN ENGINE MANUFACTURER]

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

[NA - NOT AN ENGINE MANUFACTURER]

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

[NA - NOT AN ENGINE MANUFACTURER]

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

[NA - UNITS ARE EMERGENCY]

- § 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
- (a) [NA ENGINES 2007 MODEL YEAR OR LATER]
- (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.
- (c) [NA ENGINES ARE NOT A FIRE PUMP UNITS]
- (d) [NA ENGINE DISPLACEMENT IS LESS THAN 30 LITERS PER CYLINDER]
- (e) [NA PERFORMANCE TESTING NOT REQUIRED FOR THE ABOVE GENERATORS]





(f) [NA - ENGINES ARE NOT MODIFIED OR RECONSTRUCTED]

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

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

[76 FR page 37969, June 28, 2011]

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

- (a) [Reserved]
- (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
- (c) [RESERVED]
- (d) [NA GENERATORS ARE LESS THAN 30 LITERS PER CYCLINDER]
- (e) [NA NO NATIONAL SECURITY EXEMPTION]

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 85 FR 78463, Dec. 4, 2020]

- § 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?
- (a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.
- (b) [NA UNITS > 25 HP]
- (c)-(g) [NA UNITS ARE EMERGENCY]
- (h) [NA IMPORTATION NOT RELEVANT IN THIS CASE]
- (i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[Amended at 76 FR page 37969, June 28, 2011]

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

- (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
- (b) [NA-FILTER NOT INSTALLED OR REQUIRED]

[Amended at 76 FR page 37969, June 28, 2011]



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§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

[NA - NOT AN ENGINE MANUFACTURER]

- § 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
- (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:
- (a)(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (a)(2) Change only those emission-related settings that are permitted by the manufacturer; and
- (a)(3) Meet the requirements of 40 CFR part 1068, as they apply to you.
- (b) [NA ENGINES ARE 2007 MODEL YEAR OR LATER]
- (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in § 60.4204(b) or § 60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section. [NOTE: THE CRESWELL PUMP STATION GENERATOR IS CERTIFIED UNDER FAMILY NO. DJDXL06.8120 AS STATED ON THE CERTIFICATE OF CONFORMITY, AND THE FREY FARM EMERGENCY GENERATOR IS CERTIFIED UNDER FAMILY

NO. JJDXL06.8120 AS STATED ON THE CERTIFCATE OF CONFORMITY].

- (d) [NA NOT SUBJECT TO § 60.4204(c) OR § 60.4205(d)]
- (e) [NA-NOT MODIFIED OR RECONSTRUCTED]
- (f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- (f)(1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (f)(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
- (f)(2)(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(f)(2)(ii) - (iii) [VACATED BY COURT ORDER]





- (f)(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (f)(3)(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (f)(3)(i)(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (f)(3)(i)(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (f)(3)(i)(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (f)(3)(i)(D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (f)(3)(i)(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- (f)(3)(ii) [Reserved]
- (g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:
- (g)(1) [NA ENGINES > 100 HP]
- (g)(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
- (g)(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.
- (h) The requirements for operators and prohibited acts specified in 40 CFR 1039.665 apply to owners or operators of stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011; 78 FR 6695, Jan. 30, 2013; 81 FR 44219, July 7, 2016; 86 FR 34359, June 29, 2021]



§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

[NA - TESTING NOT REQUIRED FOR CERTIFIED UNITS WHICH ARE NOT ALTERED PER 60.4211(g)]

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

[NA - DISPLACEMENT <30 L/CYL]

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

- (a) [NA UNITS ARE EMERGENCY]
- (b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
- (c) [NA NOT EQUIPPED OR REQUIRED TO HAVE A DIESEL PARTICULATE FILTER]
- (d) [NA ENGINES NOT CONTRACTUALLY OBLIGATED TO BE AVAILABLE FOR MORE THAN 15 HOURS PER CALENDAR YEAR]
- (e) Owners or operators of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e).

[Amended at 78 FR page 6696, Jan. 30, 2013; 81 FR page 44219, July 7, 2016]

40 CFR 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in § § 60.1 through 60.19 apply to you.

Regulatory Changes & Reporting Addresses

Individual sources within this source group that are subject to 40 CFR Part 60 Subpart IIII shall comply with all applicable requirements of the Subpart. 40 CFR 60.4 requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Associate Director
Office of Air Enforcement and Compliance Assistance, 3AP20
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

The Department copies shall be forwarded to the DEP SCRO Air Quality Program Manager at wiweaver@pa.gov, unless otherwise directed in writing by DEP.

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



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

*** Permit Shield in Effect. ***



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SECTION E. Source Group Restrictions.

Group Name: GROUP 003

Group Description: RICE - 40 CFR Part 63, Subpart ZZZZ

Sources included in this group

ID Name

101 LASA PUMP STATION EMERGENCY GENERATOR

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.

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

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

Am I subject to this subpart?

§ 63.6585 Am I subject to this subpart?

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

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or



other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

- (e) [NA NOT USED FOR NATIONAL SECURITY PURPOSES]
- (f) [NA RICE NOT RESIDENTIAL, COMMERCIAL OR INSTITUTIONAL]
- [69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]
- § 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) Existing stationary RICE.
- (i) [NA NOT A MAJOR HAP SOURCE]
- (ii) [NA NOT A MAJOR HAP SOURCE]
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
- (2) [NA ENGINE IS AN EXISTING UNIT]
- (i) [NA NOT A MAJOR HAP SOURCE]
- (ii) [NA NOT A MAJOR HAP SOURCE]
- (iii) [NA NOT A NEW SOURCE]
- (3) [NA NOT A RECONSTRUCTED SOURCE]
- (b) Stationary RICE subject to limited requirements. (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).
- (i) [NA NOT A MAJOR HAP SOURCE]
- (ii) [NA NOT A MAJOR HAP SOURCE]
- (2) [NA NOT A MAJOR HAP SOURCE AND DOES NOT COMBUST LFG]
- (3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
- (i) [NA NOT A MAJOR HAP SOURCE]
- (ii) [NA NOT A MAJOR HAP SOURCE]



- (iii) [NA NOT A MAJOR HAP SOURCE]
- (iv) [NA NOT A MAJOR HAP SOURCE]
- (v) [NA NOT A MAJOR HAP SOURCE AND DOES NOT COMBUST LFG]
- (c) [NA NOT SUBJECT TO SUBPARTS IIII OR JJJJ]

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

- § 63.6595 When do I have to comply with this subpart?
- (a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations, operating limitations and other requirements no later than June 15, 2007. IF YOU HAVE an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or AN EXISTING STATIONARY CI RICE LOCATED AT AN AREA SOURCE OF HAP EMISSIONS, YOU MUST COMPLY WITH THE APPLICABLE EMISSION LIMITATIONS, OPERATING LIMITATIONS, AND OTHER REQUIREMENTS NO LATER THAN MAY 3, 2013.

IF YOU HAVE an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of hap emissions, or AN EXISTING STATIONARY SI RICE LOCATED AT AN AREA SOURCE OF HAP EMISSIONS, YOU MUST COMPLY WITH THE APPLICABLE EMISSION LIMITATIONS, OPERATING LIMITATIONS, AND OTHER REQUIREMENTS NO LATER THAN OCTOBER 19, 2013.

- (2) [NA NOT A MAJOR HAP SOURCE]
- (3) [NA NOT A MAJOR HAP SOURCE]
- (4) [NA NOT A MAJOR HAP SOURCE]
- (5) [NA NOT A MAJOR HAP SOURCE]
- (6) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (7) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
- (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
- (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in \S 63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 78 FR 6701, Jan. 30, 2013]

Emission and Operating Limitations





§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

[NA – NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

[NA - NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

§ 63.6602 What emission limitations and other requirements must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

[NA - NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

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

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

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

TABLE 2d REQUIREMENTS:

- 4. For each EMERGENCY STATIONARY CI RICE and black start stationary CI RICE**, you must meet the following requirement, except during periods of startup:
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first*;
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 5. For each EMERGENCY STATIONARY SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year**, you must meet the following requirement, except during periods of startup:
- a. Change oil and filter every 500 hours of operation or annually, whichever comes first*;
- b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- *Sources have the option to utilize an oil analysis program as described in § 63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d of this subpart.
- **If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has



ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

[END OF TABLE 2d REQUIREMENTS]

- (b) [NA EMERGENCY ENGINE(S)]
- (c) [NA EMERGENCY ENGINE(S)]
- (d) [NA EMERGENCY ENGINE(S)]
- (e) [NA EMERGENCY ENGINE(S)]
- (f) [NA EMERGENCY ENGINE(S)]

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

- § 63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?
- (a) [NA EMERGENCY ENGINE(S)]
- (b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.
- (c) [NA NOT A MAJOR SOURCE]
- (d) [NA NOT IN SPECIFIED GEOGRAPHIC LOCATIONS]

[78 FR 6702, Jan. 30, 2013, as amended at 85 FR 78463, Dec. 4, 2020]

General Compliance Requirements

- § 63.6605 What are my general requirements for complying with this subpart?
- (a) You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
- (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?



[NA - NOT A MAJOR HAP SOURCE]

36-05081

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

[NA - NOT A MAJOR HAP SOURCE]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

[NA - NO PERFORMANCE TESTING REQUIRED]

§ 63.6615 When must I conduct subsequent performance tests?

[NA - NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

§ 63.6620 What performance tests and other procedures must I use?

[NA - NO PERFORMANCE TESTING REQUIRED]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(a) [NA - CEMS NOT REQUIRED]

(b) [NA - CPMS NOT REQUIRED]

(c) [NA – LFG NOT USED]

(d) [NA - NOT A MAJOR HAP SOURCE]

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) [NA – NOT A MAJOR HAP SOURCE]

(2) [NA - NOT A MAJOR HAP SOURCE]

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

(4) [NA – EMERGENCY ENGINE(S)]

(5) [NA - EMERGENCY ENGINE(S)]

(6) [NA - EMERGENCY ENGINE(S)]

(7) [NA - EMERGENCY ENGINE(S)]

(8) [NA - EMERGENCY ENGINE(S)]

(9) [NA - EMERGENCY ENGINE(S)]

(10) [NA – EMERGENCY ENGINE(S)]





- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) [NA EMERGENCY ENGINE(S)]
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
- (i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
- (j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the engine.

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

- § 63.6630 How do I demonstrate initial compliance with the emission limitations, operating limitations, and other requirements?
- (a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart. [NA NONE OF THE CATEGORIES IN TABLE 5 APPLY TO EMERGENCY ENGINES]
- (b) [NA PERFORMANCE TESTING NOT REQUIRED]
- (c) [NA NOCS NOT REQUIRED FOR EXISTING EMERGENCY RICE]
- (d) [NA EMERGENCY ENGINE(S)]





(e) [NA - EMERGENCY ENGINE(S)]

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

[NA - NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

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

TABLE 6 REQUIREMENTS

- 9. FOR EACH existing emergency and black start stationary RICE <=500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, EXISTING EMERGENCY and black start STATIONARY RICE LOCATED AT AN AREA SOURCE OF HAP, existing non-emergency stationary CI RICE <=300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, existing non-emergency 4SLB and 4SRB stationary RICE <=500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE, complying with the requirement to "Work or Management practices", you must demonstrate continuous compliance by:
- $i.\ Operating\ and\ maintaining\ the\ stationary\ RICE\ according\ to\ the\ manufacturer's\ emission-related\ operation\ and\ maintenance\ instructions;$
- ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[END OF TABLE 6 REQUIREMENTS]

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





THOSE EXEMPTED FROM THIS SECTION

- (f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- (1) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
- (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (ii)-(iii) [VACATED AS OF 5/2/16 PER COURT ORDER]
- (3) [NA NOT A MAJOR HAP SOURCE]
- (4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.
- (ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.





[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6704, Jan. 30, 2013]

Notifications, Reports, and Records

- § 63.6645 What notifications must I submit and when?
- (a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) [NA NOT A MAJOR HAP SOURCE]
- (2) [NA PER (5) BELOW]
- (3) [NA NOT A MAJOR HAP SOURCE]
- (4) [NA NOT A MAJOR HAP SOURCE]
- (5) THIS REQUIREMENT DOES NOT APPLY IF YOU OWN OR OPERATE an existing stationary RICE less than 100 HP, AN EXISTING STATIONARY EMERGENCY RICE, OR AN EXISTING STATIONARY RICE THAT IS NOT SUBJECT TO ANY NUMERICAL EMISSION STANDARDS.
- (b) [NA NOT A MAJOR HAP SOURCE]
- (c) [NA NOT A MAJOR HAP SOURCE]
- (d) [NA NOT A MAJOR HAP SOURCE]
- (e) [NA NOT A MAJOR HAP SOURCE]
- (f) [NA 63.6590(b) DOES NOT APPLY]
- (g) [NA PERFORMANCE TEST NOT REQUIRED]
- (h) [NA PERFORMANCE TEST NOT REQUIRED]
- (i) [NA EMERGENCY ENGINE(S)]

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

- § 63.6650 What reports must I submit and when?
- (a) You must submit each report in Table 7 of this subpart that applies to you.

TABLE 7 REQUIREMENTS

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

[END OF TABLE 7 REQUIREMENTS]

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



- (1) [NA ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]
- (2) [NA ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]
- (3) [NA ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]
- (4) [NA ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]
- (5) [NA ANNUAL REPORT REQUIRED, ONLY UNDER CERTAIN CONDITIONS]
- (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.
- (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.
- (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
- (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) [NA "COMPLIANCE REPORT" NOT REQUIRED]
- (d) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (e) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
- (g) [NA LFG NOT USED]
- (h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.
- (1) The report must contain the following information:
- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in § 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(2)(ii) and (iii).



- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 63.6640(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.
- (ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13.
- [69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]
- § 63.6655 What records must I keep?
- (a) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (b) [NA NO CEMS OR CPMS]
- (c) [NA LFG NOT USED]
- (d) [NA NOT SUBJECT TO EMISSION OR OPERATING LIMITATIONS]
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) [NA NOT A MAJOR HAP SOURCE]
- (2) An existing stationary emergency RICE.
- (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in \S 63.6640(f)(2)(ii) or (iii) or \S 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
- (1) [NA NOT A MAJOR HAP SOURCE]
- (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.
- [69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 78 FR 6706, Jan. 30,





2013]

§ 63.6660 In what form and how long must I keep my records?

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

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

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE. [EXISTING EMERGENCY RICE AT AREA HAP SOURCES ARE NOT AMONG THOSE EXEMPTED FROM THIS SECTION]

[75 FR 9678, Mar. 3, 2010]

Reporting Requirements & Regulatory Changes:

Individual sources within this source group that are subject to 40 CFR Part 63 Subpart ZZZZ -National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines shall comply with all applicable requirements of the Subpart. 40 CFR 63.13(a) requires submission of copies of all requests, reports and other communications to both the Department and the EPA. The EPA copies shall be forwarded to:

Associate Director Office of Air Enforcement and Compliance Assistance (3AP20) Air Protection Division (3AP00) U.S. EPA Region III 1650 Arch Street Philadelphia, PA 19103-2029

The Department copies shall be forwarded to the DEP SCRO Air Quality Program Manager at wiweaver@pa.gov, unless otherwise directed in writing by DEP.

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







*** Permit Shield in Effect. ***







Group Name: GROUP 004

Group Description: 40 CFR Part 60, Subpart XXX

Sources included in this group

ID	Name
LF002 LANDFILL - FREY FARM SITE	
LF003 LANDFILL - CRESWELL SITE	
LF004 FREY FARM VERTICAL EXPANSION	

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.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Reports, requests, and other communications required in accordance with 40 CFR Part 60 Subpart XXX shall be submitted to both the EPA and the DEP. EPA copies shall be forwarded to:

Associate Director

Office of Air Enforcement and Compliance Assistance (3AP20)

U.S. EPA Region III

1650 Arch Street

Philadelphia, PA 19103-2029

The Department copies shall be forwarded to the DEP SCRO Air Quality Program Manager at wiweaver@pa.gov, unless otherwise directed in writing by DEP.

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

In the event that the Federal Subpart that is the subject of this Source Group is stayed or vacated or otherwise rendered





legally inoperative, the permittee shall not be required to comply with it. However if such stay or vacature results in another Federal Subpart becoming applicable that is not addressed in this permit, the permittee shall comply with the newly applicable subpart.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

§60.760 Applicability, designation of affected facility, and delegation of authority.

- (a) The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction, or modification after July 17, 2014. Physical or operational changes made to an MSW landfill solely to comply with subparts Cc, Cf, or WWW of this part are not considered construction, reconstruction, or modification for the purposes of this section.
- (b) The following authorities are retained by the Administrator and are not transferred to the state: § 60.764(a)(5).
- (c) Activities required by or conducted pursuant to a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), or state remedial action are not considered construction, reconstruction, or modification for purposes of this subpart.
- [81 FR page 59368, Aug. 29, 2016]

§60.761 Definitions [INCORPORATED BY REFERENCE]

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

§60.762 Standards for air emissions from municipal solid waste landfills.

- (a) [NA LANDFILL IS GREATER THAN 2.5 MILLION MEGAGRAMS BY MASS OR 2.5 MILLION CUBIC METERS BY VOLUME]
- (b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in §60.764. The NMOC emission rate must be recalculated annually, except as provided in §60.767(b)(1)(ii). 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 is subject to part 70 or 71 permitting requirements.
- (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 emission report to the Administrator, except as provided for in §60.767(b)(1)(ii); and
- (ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.764(a)(1) 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 (b) of this section, is equal to or greater than 34 megagrams per year, the owner or operator must either: Comply with paragraph (b)(2) of this section; calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6).
- (B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided for in §60.767(e).
- (2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator must either:
- (i) Calculated NMOC Emission Rate. Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in §60.767(c); calculate NMOC emissions using the next higher tier in §60.764; or conduct a surface emission monitoring demonstration using the procedures specified in §60.764(a)(6). The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.





- (ii) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(C) or (D) and (b)(2)(iii) of this section within 30 months after:
- (A) The first annual report in which the NMOC emission rate equals or exceeds 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 §60.767(c)(4); or
- (B) 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 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in §60.767(c)(4)(iii).
- (C) An active collection system must:
- (1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment;
- (2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade.
- (3) Collect gas at a sufficient extraction rate;
- (4) Be designed to minimize off-site migration of subsurface gas.
- (D) A passive collection system must:
- (1) Comply with the provisions specified in paragraphs (b)(2)(ii)(C)(1), (2), and (3) of this section.
- (2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under 40 CFR 258.40.
- (iii) Control system. Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B), or (C) of this section.
- (A) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.764(e); or
- (B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or 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 §60.764(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.
- (1) [NA FLARE IS USED FOR CONTROL]
- 2) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §60.766;
- (C) 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 (b)(2)(iii)(A) or (B) of this section.
- (D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank



are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.

- (iv) Operation. Operate the collection and control device installed to comply with this subpart in accordance with the provisions of §§60.763, 60.765, and 60.766; or the provisions of §§63.1958, 63.1960, and 63.1961 of this chapter. Once the owner or operator begins to comply with the provisions of §§63.1958, 63.1960, and 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 §§60.763, 60.765, and 60.766.
- (v) Removal criteria. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
- (A) The landfill is a closed landfill (as defined in §60.761). A closure report must be submitted to the Administrator as provided in §60.767(e).
- (B) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.
- (C) Following the procedures specified in §60.764(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.
- (c) 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 part 70 or 71 of this chapter, unless the landfill is otherwise subject to either part 70 or 71. For purposes of submitting a timely application for an operating permit under 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 part 70 or 71, becomes subject to the requirements of §70.5(a)(1)(i) or §71.5(a)(1)(i) of this chapter, regardless of when the design capacity report is actually submitted, no later than:
- (1) November 28, 2016 for MSW landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016;
- (2) Ninety days after the date of commenced construction, modification, or reconstruction for MSW landfills that commence construction, modification, or reconstruction after August 29, 2016.
- (d) 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 part 70 or 71 of this chapter for the landfill if the landfill is not otherwise subject to the requirements of either part 70 or 71 and if either of the following conditions are met:
- (1) The landfill was never subject to the requirement for a control system under paragraph (b)(2) of this section; or
- (2) The owner or operator meets the conditions for control system removal specified in paragraph (b)(2)(v) of this section.

[81 FR 59368, Aug. 29, 2016, as amended at 85 FR 17261, Mar. 26, 2020]

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

§60.763 Operational standards for collection and control systems.

Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of § 60.762(b)(2) must:

- (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
- (1) 5 years or more if active; or





- (2) 2 years or more if closed or at final grade;
- (b) Operate the collection system with negative pressure at each wellhead except under the following conditions:
- (1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the annual reports as provided in § 60.767(g)(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 § 60.767(c);
- (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 § 60.765(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 § 60.762(b)(2)(iii). 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; and
- (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 § 60.765(a)(3) and (5) or (c). If corrective actions are taken as specified in § 60.765, the monitored exceedance is not a violation of the operational requirements in this section.

[81 FR page 59371, Aug. 29, 2016]

[25 Pa. Code §127.441]

Operating permit terms and conditions.

§ 60.764 Test methods and procedures.

(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 Lo, 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 meteorologic site, the k value to be used is 0.02 per year.





- (i)(A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.[SEE REGULATION FOR EQUATION]
- (i)(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 Mi 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.[SEE REGULATION FOR EQUATION]
- (ii)(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.
- (a)(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 landfill owner or operator must submit an NMOC emission rate report according to § 60.767(b), and must recalculate the NMOC mass emission rate annually as required under § 60.762(b).
- (ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 34 megagrams per year, then the landfill owner must either:
- (A) Submit a gas collection and control system design plan within 1 year as specified in § 60.767(c) and install and operate a gas collection and control system within 30 months according to § 60.762(b)(2)(ii) and (iii);
- (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.
- (a)(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 Method 25 or 25C of appendix A of this part. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.
- (i) Within 60 days after the date of completing each performance test (as defined in § 60.8), the owner or operator must submit the results according to § 60.767(i)(1).
- (ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and 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 § 60.767(b)(1), and must recalculate the NMOC mass emission rate annually as required under § 60.762(b). 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 landfill owner or operator must either:
- (A) Submit a gas collection and control system design plan within 1 year as specified in § 60.767(c) and install and operate a gas collection and control system within 30 months according to § 60.762(b)(2)(ii) and (iii);
- (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.
- (a)(4) Tier 3. The site-specific methane generation rate constant must be determined using the procedures provided in Method 2E of appendix A of this part. 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 § 60.767(c) and install and operate a gas collection and control system within 30 months according to § 60.762(b)(2)(ii) and (iii); 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 § 60.767(b)(1). 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.
- (a)(5) Other methods. The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.
- (a)(6) Tier 4. The landfill owner or operator must 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 Mg/yr but less than 50 Mg/yr using Tier 1 or Tier 2. If both Tier 1 and Tier 2 indicate NMOC emissions are 50 Mg/yr or greater, then Tier 4 cannot be used. In addition, the landfill must meet the criteria in paragraph (a)(6)(viii) of this section.
- (i) The owner or operator must measure surface concentrations of methane along the entire perimeter of the landfill and along a pattern that traverses the landfill at no more than 30-meter intervals using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in § 60.765(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 Method 21 of appendix A of this part, except that the probe inlet must be placed no more than 5 centimeters above the landfill surface; the constant measurement of distance above the surface should be based on a mechanical device such as with a wheel on a pole, except as described in paragraph (a)(6)(iii)(A) of this section.
- (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. 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 § 60.765(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 § 60.768(g) and submit a Tier 4 surface emissions report as provided in § 60.767(c)(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 § 60.767(c) and install and operate a gas collection and control system according to § 60.762(b)(2)(ii) and (iii) 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 6,570 out of 8,760 hours preceding the Tier 4 surface emissions monitoring demonstration.
- (B) During the Tier 4 surface emissions monitoring demonstration, the gas collection and control system must operate as it normally would to collect and control as much landfill gas as possible.
- (b) 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 § 60.762(b)(2)(v), using Equation 3 [See Regulation for Equation]:
- (1) The flow rate of landfill gas, QLFG, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of Method 2E of appendix A of this part.
- (2) The average NMOC concentration, CNMOC, must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in Method 25 or Method 25C. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from Method 25 or Method 25C of appendix A of this part by six to convert from CNMOC as carbon to CNMOC as hexane.



- (3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.
- (i) Within 60 days after the date of completing each performance test (as defined in § 60.8), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to § 60.767(i)(1).
- (ii) [Reserved]

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- (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 § 60.762(b)(2)(iii)(B), Method 25 or 25C (Method 25C may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20 parts per million by volume outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by § 60.767(c)(2). Method 3, 3A, or 3C must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. Method 18 may be used in conjunction with Method 25A on a limited basis (compound specific, e.g., methane) or Method 3C may be used to determine methane. The methane as carbon should be subtracted from the Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon. The landowner or operator must divide the NMOC concentration as carbon by 6 to convert from the CNMOC as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency. [SEE REGULATION FOR EQUATION]
- (e) For the performance test required in § 60.762(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in § 60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under § 60.18(f)(4).
- (1) Within 60 days after the date of completing each performance test (as defined in \S 60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by \S 60.764(b) or (d) according to \S 60.767(i)(1).
- (2) [Reserved]

[81 FR page 59371, Aug. 29, 2016]

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- § 60.765 Compliance provisions.
- (a) Except as provided in § 60.767(c)(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 § 60.762(b)(2)(ii).
- (1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.762(b)(2)(ii)(C)(1), either Equation 5 or Equation 6 must be used. The methane generation rate constant (k) and methane generation potential (Lo) kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in § 60.764(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.
- (i) For sites with unknown year-to-year solid waste acceptance rate: [SEE REGULATION FOR EQUATION]
- (ii) For sites with known year-to-year solid waste acceptance rate: [SEE REGULATION FOR EQUATION]





- (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 §60.762(b)(2)(ii)(C)(2), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.
- (3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §60.762(b)(2)(ii)(C)(3), 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 §60.763(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 no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §60.768(e)(3).
- (ii) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(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 §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to §60.768(e)(5).

(4) [Reserved]

- (5) 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 §60.763(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 §60.768(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 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 §60.767(g)(7) as part of the next annual report. The owner or operator must keep records according to §60.768(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 §60.767(g)(7) and §60.767(j). The owner or operator must keep records according to





§60.768(e)(5).

- (6) An owner or operator seeking to demonstrate compliance with §60.762(b)(2)(ii)(C)(4) through the use of a collection system not conforming to the specifications provided in §60.769 must provide information satisfactory to the Administrator as specified in §60.767(c)(3) demonstrating that off-site migration is being controlled.
- (b) For purposes of compliance with §60.763(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 §60.767(c). 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) Five (5) years or more if active; or
- (2) Two (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 §60.763(d).
- (1) After installation and startup of the gas collection system, the owner or operator must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.
- (2) The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
- (3) Surface emission monitoring must be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, 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 §60.763(d).
- (i) The location of each monitored exceedance must be marked and the location and concentration recorded.
- (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 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring 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 §60.764(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 Method 21 of appendix A of this part, 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 Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part must be used.
- (4) The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part 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 §60.763(e) in lieu of the compliance provisions in §60.765.

[81 FR 59368, Aug. 29, 2016, as amended at 85 FR 17261, Mar. 26, 2020]

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

§60.766 Monitoring of operations.

Except as provided in §60.767(c)(2):

- (a) Each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) 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 §60.765(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 Method 3C, unless an alternative test method is established as allowed by $\S60.767(c)(2)$.
- (ii) Unless an alternative test method is established as allowed by §60.767(c)(2), the oxygen level must be determined by an oxygen meter using Method 3A, 3C, or ASTM D6522-11 (incorporated by reference, see §60.17). Determine the oxygen level by an oxygen meter using 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 ± 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 Method 3A or ASTM D6522-11 (incorporated by reference, see §60.17).





- (3) Monitor temperature of the landfill gas on a monthly basis as provided in 60.765(a)(5). The temperature measuring device must be calibrated annually using the procedure in 40 CFR part 60, appendix A-1, Method 2, section 10.3 such that a minimum of two temperature points, bracket within 10 percent of all landfill absolute temperature measurements or two fixed points of ice bath and boiling water, corrected for barometric pressure, are used.
- (b) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:
- (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.
- (2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:
- (i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and
- (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (c) Each owner or operator seeking to comply with §60.762(b)(2)(iii) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:
- (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
- (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 §60.762(b)(2)(iii) using a device other than a nonenclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in §60.767(c)(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 §60.769 or seeking to monitor alternative parameters to those required by §§60.763 through 60.766 must provide information satisfactory to the Administrator as provided in §60.767(c)(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 §60.763(d) must monitor surface concentrations of methane according to the procedures in §60.765(c) and the instrument specifications in §60.765(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 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.





- (g) Each owner or operator seeking to demonstrate compliance with §60.762(b)(2)(iii) using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the sitespecific treatment system monitoring plan required in §60.768(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 affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

[81 FR 59368, Aug. 29, 2016, as amended at 85 FR 63403, Oct. 7, 2020]

[25 Pa. Code §127.441]

Operating permit terms and conditions.

§60.767 Reporting requirements.

- (a) Design capacity report. Each owner or operator subject to the requirements of this subpart must submit an initial design capacity report to the Administrator.
- (1) Submission. The initial design capacity report fulfills the requirements of the notification of the date construction is commenced as required by §60.7(a)(1) and must be submitted no later than:
- (i) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016; or
- (ii) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.
- (2) Initial design capacity report. The initial design capacity report must contain the following information:
- (i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill.
- (ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either megagrams or cubic meters for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.
- (3) Amended design capacity report. An amended design capacity report must be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design





capacity of the landfill to meet or exceed 2.5 million 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 §60.768(f).

- (b) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit an NMOC emission rate report following the procedure specified in paragraph (i)(2) of this section to the Administrator initially and annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.
- (1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.764(a) or (b), as applicable.
- (i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and must be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (b)(1)(ii) of this section.
- (A) November 28, 2016, for landfills that commenced construction, modification, or reconstruction after July 17, 2014, but before August 29, 2016, or
- (B) Ninety days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016.
- (ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 34 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit, following the procedure specified in paragraph (i)(2) of this section, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Administrator. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Administrator. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.
- (2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
- (3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with §60.762(b)(2), during such time as the collection and control system is in operation and in compliance with §\$60.763 and 60.765.
- (c) Collection and control system design plan. Each owner or operator subject to the provisions of §60.762(b)(2) must submit a collection and control system design plan to the Administrator for approval according to the schedule in paragraph (c)(4) of this section. The collection and control system design plan must be prepared and approved by a professional engineer and must meet the following requirements:
- (1) The collection and control system as described in the design plan must meet the design requirements in §60.762(b)(2).
- (2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§60.763 through 60.768 proposed by the owner or operator.
- (3) The collection and control system design plan must either conform with specifications for active collection systems in §60.769 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to §60.769.
- (4) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters must submit a collection and control system design plan to the Administrator for approval within 1





year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:

- (i) If the owner or operator elects to recalculate the NMOC emission rate after Tier 2 NMOC sampling and analysis as provided in §60.764(a)(3) and the resulting rate is less than 34 megagrams per year, annual periodic reporting must be resumed, using the Tier 2 determined site-specific NMOC concentration, until the calculated emission rate is equal to or greater than 34 megagrams per year or the landfill is closed. The revised NMOC emission rate report, with the recalculated emission rate based on NMOC sampling and analysis, must be submitted, following the procedures in paragraph (i)(2) of this section, within 180 days of the first calculated exceedance of 34 megagrams per year.
- (ii) If the owner or operator elects to recalculate the NMOC emission rate after determining a site-specific methane generation rate constant k, as provided in Tier 3 in §60.764(a)(4), and the resulting NMOC emission rate is less than 34 Mg/yr, annual periodic reporting must be resumed. The resulting site-specific methane generation rate constant k must be used in the emission rate calculation until such time as the emissions rate calculation results in an exceedance. The revised NMOC emission rate report based on the provisions of §60.764(a)(4) and the resulting site-specific methane generation rate constant k must be submitted, following the procedure specified in paragraph (i)(2) of this section, to the Administrator within 1 year of the first calculated emission rate equaling or exceeding 34 megagrams per year.
- (iii) If the owner or operator elects to demonstrate that site-specific surface methane emissions are below 500 parts per million methane, based on the provisions of §60.764(a)(6), then the owner or operator must submit annually a Tier 4 surface emissions report as specified in this paragraph following the procedure specified in paragraph (i)(2) of this section until a surface emissions readings of 500 parts per million methane or greater is found. If the Tier 4 surface emissions report shows no surface emissions readings of 500 parts per million methane or greater for four consecutive quarters at a closed landfill, then the landfill owner or operator may reduce Tier 4 monitoring from a quarterly to an annual frequency. The Administrator may request such additional information as may be necessary to verify the reported instantaneous surface emission readings. The Tier 4 surface emissions report must clearly identify the location, date and time (to nearest second), average wind speeds including wind gusts, and reading (in parts per million) of any value 500 parts per million methane or greater, other than non-repeatable, momentary readings. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places. The Tier 4 surface emission report must also include the results of the most recent Tier 1 and Tier 2 results in order to verify that the landfill does not exceed 50 Mg/yr of NMOC.
- (A) The initial Tier 4 surface emissions report must be submitted annually, starting within 30 days of completing the fourth quarter of Tier 4 surface emissions monitoring that demonstrates that site-specific surface methane emissions are below 500 parts per million methane, and following the procedure specified in paragraph (i)(2) of this section.
- (B) The Tier 4 surface emissions report must be submitted within 1 year of the first measured surface exceedance of 500 parts per million methane, following the procedure specified in paragraph (i)(2) of this section.
- (5) The landfill owner or operator must notify the Administrator that the design plan is completed and submit a copy of the plan's signature page. The Administrator has 90 days to decide whether the design plan should be submitted for review. If the Administrator chooses to review the plan, the approval process continues as described in paragraph (c)(6) of this section. However, if the Administrator indicates that submission is not required or does not respond within 90 days, the landfill owner or operator can continue to implement the plan with the recognition that the owner or operator is proceeding at their own risk. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.
- (6) Upon receipt of an initial or revised design plan, the Administrator must review the information submitted under paragraphs (c)(1) through (3) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems. If the Administrator does not approve or disapprove the design plan, or does not request that additional information be submitted within 90 days of receipt, then the owner or operator may continue with implementation of the design plan, recognizing they would be proceeding at their own risk.





- (7) If the owner or operator chooses to demonstrate compliance with the emission control requirements of this subpart using a treatment system as defined in this subpart, then the owner or operator must prepare a site-specific treatment system monitoring plan as specified in §60.768(b)(5).
- (d) Revised design plan. The owner or operator who has already been required to submit a design plan under paragraph (c) of this section must submit a revised design plan to the Administrator for approval as follows:
- (1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.
- (2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator according to paragraph (c) of this section.
- (e) Closure report. Each owner or operator of a controlled landfill must submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 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 §60.7(a)(4).
- (f) 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 all of the following items:
- (i) A copy of the closure report submitted in accordance with paragraph (e) of this section;
- (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 CDX, or information that demonstrates that the GCCS 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.
- (2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in $\S60.762(b)(2)(v)$ have been met.
- (g) Annual report. The owner or operator of a landfill seeking to comply with $\S60.762(b)(2)$ using an active collection system designed in accordance with $\S60.762(b)(2)(ii)$ must submit to the Administrator, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(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 and must include the initial performance test report required under $\S60.8$, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. 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. For enclosed combustion devices and flares, reportable exceedances are defined under $\S60.768(c)$. If complying with the operational provisions of $\S\S63.1958$, $\S63.1960$, and $\S63.1961$ of this chapter, as allowed at $\S60.762(b)(2)(iv)$, the owner or operator must follow the semi-annual reporting requirements in $\S63.1981(h)$ of this chapter in lieu of this paragraph.
- (1) Value and length of time for exceedance of applicable parameters monitored under §60.766(a), (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 §60.766.





- (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 §60.763(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 §60.765(a)(3), (a)(5), (b), and (c)(4).
- (7) For any corrective action analysis for which corrective actions are required in §60.765(a)(3) or (5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or elevated temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (h) Initial performance test report. Each owner or operator seeking to comply with §60.762(b)(2)(iii) must include the following information with the initial performance test report required under §60.8:
- (1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
- (2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
- (3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
- (4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and
- (5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and
- (6) The provisions for the control of off-site migration.
- (i) Electronic reporting. The owner or operator must submit reports electronically according to paragraphs (i)(1) and (2) of this section.
- (1) Within 60 days after the date of completing each performance test (as defined in §60.8), 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 Web site (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). CEDRI can be accessed through the EPA's Central Data Exchange (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 Web site, 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 Web site, 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 Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in §60.4.
- (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 Web site (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 §60.4. 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.
- (j) Corrective action and the corresponding timeline. The owner or operator must submit according to paragraphs (j)(1) and (2) of this section. If complying with the operational provisions of §§63.1958, 63.1960, and 63.1961 of this chapter, as allowed at §60.762(b)(2)(iv), the owner or operator must follow the corrective action and the corresponding timeline requirements in §63.1981(j) of this chapter in lieu of this paragraph.
- (1) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(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). The Administrator must approve the plan for corrective action and the corresponding timeline.
- (2) For corrective action that is required according to §60.765(a)(3)(iii) or (a)(5)(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.
- (k) Liquids addition. The owner or operator of an affected landfill 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, subtitle D, part 258) within the last 10 years must submit to the Administrator, annually, following the procedure specified in paragraph (i)(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 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 (k)(1) through (6) of this section per year for the initial annual reporting period 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:





- (i) September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29, 2016; or
- (ii) Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016.
- (8) Subsequent annual reports must contain items in paragraph (k)(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 may cease annual reporting of items in paragraphs (k)(1) through (7) of this section once they have submitted the closure report in paragraph (e) of this section.
- (I) Tier 4 notification. (1) The owner or operator of an affected landfill 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 §60.764(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 §60.764(a)(6)(iii)(A), the owner or operator of a landfill shall notify the Administrator by email or telephone no later than 48 hours before any delay or cancellation in the original test date, and arrange an updated date with the Administrator by mutual agreement.
- (m) Each owner or operator that chooses to comply with the provisions in $\S63.1958, 63.1960,$ and 63.1961, as allowed at $\S60.762(b)(2)(iv)$, must submit the 24-hour high temperature report according to $\S63.1981(k)$ of this chapter.

[81 FR 59368, Aug. 29, 2016, as amended at 85 FR 17261, Mar. 26, 2020]

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

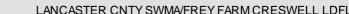
§60.768 Recordkeeping requirements.

- (a) Except as provided in §60.767(c)(2), each owner or operator of an MSW landfill subject to the provisions of §60.762(b)(2)(ii) and (iii) must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §60.762(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Offsite records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
- (b) Except as provided in §60.767(c)(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 §60.762(b)(2)(ii):
- (i) The maximum expected gas generation flow rate as calculated in §60.765(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 §60.769(a)(1).
- (2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:





- (i) The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test.
- (ii) The percent reduction of NMOC determined as specified in §60.762(b)(2)(iii)(B) achieved by the control device.
- (3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with $\S60.762(b)(2)(iii)(B)(1)$ through use of a boiler or process heater of any size: A description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.
- (4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
- (5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.762(b)(2)(iii) 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, to include:
- (A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.
- (B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.
- (C) Documentation of the monitoring methods and ranges, along with justification for their use.
- (D) Identify who is responsible (by job title) for data collection.
- (E) Processes and methods used to collect the necessary data.
- (F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.
- (c) Except as provided in §60.767(c)(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 §60.766 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 §60.767(g):
- (i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million British thermal units 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 §60.762(b)(2)(iii) was determined.
- (ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.
- (2) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of





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car-seals or lock-and-key configurations used to seal bypass lines, specified under §60.766.

- (3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with §60.762(b)(2)(iii) must keep an up-to-date, readily accessible record of all periods of operation of the boiler or process heater. (Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other state, local, tribal, or federal regulatory requirements.)
- (4) Each owner or operator seeking to comply with the provisions of this subpart by use of a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.766(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 §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.
- (d) Except as provided in §60.767(c)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
- (1) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §60.765(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 §60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.769(a)(3)(ii).
- (e) Except as provided in §60.767(c)(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 at §60.762(b)(2)(iv), 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 §60.763, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- (2) Each owner or operator subject to the provisions of this subpart must also keep records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.
- (3) For any root cause analysis for which corrective actions are required in §60.765(a)(3)(i) or (a)(5)(i), 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 §60.765(a)(3)(ii) or (a)(5)(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 §60.765(a)(3)(iii) or (a)(5)(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 at §60.762(b)(2)(iv), 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.





- (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 surface emission monitoring under the Tier 4 procedures specified in §60.764(a)(6) must keep for at least 5 years up-to-date, readily accessible records of all surface emissions monitoring and information related to monitoring instrument calibrations conducted according to sections 8 and 10 of Method 21 of appendix A of this part, 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, including the wind barrier. The photographs must be time and datestamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.
- (3) Timestamp of each surface scan reading:
- (i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.
- (ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).
- (4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.
- (5) Monitored methane concentration (parts per million) of each reading.
- (6) Background methane concentration (parts per million) after each instrument calibration test.
- (7) Adjusted methane concentration using most recent calibration (parts per million).
- (8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.
- (9) Records of the operating hours of the gas collection system for each destruction device.
- (h) Except as provided in §60.767(c)(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 §60.766(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 §60.767(k), 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.

[81 FR 59368, Aug. 29, 2016, as amended at 85 FR 17261, Mar. 26, 2020]

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- § 60.769 Specifications for active collection systems.
- (a) Each owner or operator seeking to comply with § 60.762(b)(2)(i) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in § 60.767(c)(2) and (3):
- (1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.
- (2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- (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 § 60.768(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: [SEE REGULATION FOR EQUATION]
- (B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in § 60.764(b) 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 (this 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 § 60.764(a)(1) or the alternative values from § 60.764(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.
- (b) Each owner or operator seeking to comply with § 60.762(b)(2)(ii)(A) 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 § 60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with § 60.762(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
- (1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.
- (2) For new collection systems, the maximum flow rate must be in accordance with § 60.765(a)(1).

[81 FR page 59383, Aug. 29, 2016]

*** Permit Shield in Effect. ***







Group Name: GROUP 006

Group Description: 40 CFR Part 63, Subpart AAAA

Sources included in this group

ID Name

LF002 LANDFILL - FREY FARM SITE

LF003 LANDFILL - CRESWELL SITE

LF004 FREY FARM VERTICAL EXPANSION

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1947]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills When do I have to comply with this subpart if I own or operate a bioreactor?

[NA - FACILITY DOES NOT MAKE USE OF A BIOREACTOR]

002 [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?

§63.1950 When am I no longer required to comply with this subpart?

You are no longer required to comply with the requirements of this subpart when your landfill meets the collection and control system removal criteria in §63.1957(b).

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1952]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills When am I no longer required to comply with the requirements of this subpart if I own or operate a bioreactor?

[NA - FACILITY DOES NOT MAKE USE OF A BIOREACTOR]

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1955]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What requirements must I meet?

§63.1955 What requirements must I meet?

- (a) Before September 28, 2021, if alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions have already been approved under 40 CFR part 60, subpart WWW; subpart XXX; a federal plan; or an EPA-approved and effective state or tribal plan, these alternatives can be used to comply with this subpart, except that all affected sources must comply with the SSM requirements in subpart A of this part as specified in Table 1 of this subpart and all affected sources must submit compliance reports every 6 months as specified in §63.1981(h), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3-hour monitoring block average. Beginning no later than September 28, 2021, the collection and control system design plan may include for approval collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions, as provided in §63.1981(d)(2).
- (b) If you own or operate a bioreactor that is located at an MSW landfill that is not permanently closed and has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m3, then you must meet the requirements of this subpart, including requirements in paragraphs (b)(1) and (2) of this section.
- (1) You must comply with this subpart starting on the date you are required to install the gas collection and control system.
- (2) You must extend the collection and control system into each new cell or area of the bioreactor prior to initiating liquids addition in that area.
- (c) At all times, beginning no later than September 27, 2021, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety





and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if the requirements of this subpart have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

005 [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.

- §63.1957 Requirements for gas collection and control system installation and removal.
- (a) Operation. Operate the collection and control device in accordance with the provisions of §§63.1958, 63.1960, and 63.1961.
- (b) Removal criteria. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
- (1) The landfill is a closed landfill (as defined in §63.1990). A closure report must be submitted to the Administrator as provided in §63.1981(f);
- (2) The gas collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and
- (3) Following the procedures specified in §63.1959(c), the calculated NMOC emission rate at the landfill is less than 50 Mg/yr on three successive test dates. The test dates must be no less than 90 days apart, and no more than 180 days apart.

006 [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.

§63.1958 Operational standards for collection and control systems.

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

- (a) Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade;
- (b) Operate the collection system with negative pressure at each wellhead except under the following conditions:
- (1) A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire. These records must be submitted with the semi-annual reports as provided in §63.1981(h);
- (2) Use of a geomembrane or synthetic cover. The owner or operator must develop acceptable pressure limits in the design plan;
- (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the Administrator as specified in §63.1981(d)(2);
- (c) Operate each interior wellhead in the collection system as specified in 40 CFR 60.753(c), until the landfill owner or operator elects to meet the operational standard for temperature in paragraph (c)(1) of this section.
- (1) Beginning no later than September 27, 2021, operate each interior wellhead in the collection system with a landfill gas





temperature less than 62.8 degrees Celsius (145 degrees Fahrenheit).

- (2) The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Administrator for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved (i.e., neither causing fires nor killing methanogens is acceptable).
- (d)(1) Operate the collection system so that the methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator must conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.
- (2) Beginning no later than September 27, 2021, the owner or operator must:
- (i) Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §63.1960(d).
- (ii) Conduct surface testing at all cover penetrations. Thus, the owner or operator must monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required.
- (iii) Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (e) Operate the system as specified in §60.753(e) of this chapter, except:
- (1) Beginning no later than September 27, 2021, operate the system in accordance to §63.1955(c) such that all collected gases are vented to a control system designed and operated in compliance with §63.1959(b)(2)(iii). In the event the collection or control system is not operating:
- (i) The gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating; and
- (ii) Efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation.
- (2) [Reserved]
- (f) Operate the control system at all times when the collected gas is routed to the system.
- (g) If monitoring demonstrates that the operational requirements in paragraph (b), (c), or (d) of this section are not met, corrective action must be taken as specified in §63.1960(a)(3) and (5) or (c). If corrective actions are taken as specified in §63.1960, the monitored exceedance is not a deviation of the operational requirements in this section.

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

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1960]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Compliance provisions.

§63.1960 Compliance provisions.

(a) Except as provided in §63.1981(d)(2), the specified methods in paragraphs (a)(1) through (5) of this section must be used to determine whether the gas collection system is in compliance with §63.1959(b)(2)(ii).





- (1) For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with §63.1959(b)(2)(ii)(C)(1), either Equation 5 or Equation 6 must be used. The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the Administrator. The methane generation rate constant (k) and methane generation potential (Lo) kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the Administrator. If k has been determined as specified in §63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years must be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.
- (i) For sites with unknown year-to-year solid waste acceptance rate: [SEE EQUATION #5 IN REGULATION]
- (ii) For sites with known year-to-year solid waste acceptance rate: [SEE EQUATION #6 IN REGULATION]
- (iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 in paragraph (a)(1)(i) or (ii) of this section or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.
- (2) For the purposes of determining sufficient density of gas collectors for compliance with §63.1959(b)(2)(ii)(B)(2), the owner or operator must design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the Administrator, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.
- (3) For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §63.1959(b)(2)(ii)(B)(3), the owner or operator must measure gauge pressure in the gas collection header applied to each individual well monthly. Any attempted corrective measure must not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval. If a positive pressure exists, follow the procedures as specified in §60.755(a)(3), except:
- (i) Beginning no later than September 27, 2021, if a positive pressure exists, action must be initiated to correct the exceedance within 5 days, except for the three conditions allowed under §63.1958(b).
- (A) If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured. The owner or operator must keep records according to §63.1983(e)(3).
- (B) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the positive pressure measurement. The owner or operator must submit the items listed in §63.1981(h)(7) as part of the next semi-annual report. The owner or operator must keep records according to §63.1983(e)(4).
- (C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator, according to §63.1981(j). The owner or operator must keep records according to §63.1983(e)(5).
- (ii) [Reserved]
- (4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph §63.1958(c), for the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator must follow the procedures as specified in §60.755(a)(5) of this chapter, except:
- (i) Once an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the

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SECTION E. Source Group Restrictions.

operational standard for temperature in §63.1958(c)(1), the owner or operator must monitor each well monthly for temperature. If a well exceeds the operating parameter for temperature as provided in §63.1958(c)(1), action must be initiated to correct the exceedance within 5 days. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

- (A) If a landfill gas temperature less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit) cannot be achieved within 15 days of the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit), the owner or operator must conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) was first measured. The owner or operator must keep records according to §63.1983(e)(3).
- (B) If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the owner or operator must also conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit). The owner or operator must submit the items listed in §63.1981(h)(7) as part of the next semi-annual report. The owner or operator must keep records according to §63.1983(e)(4).
- (C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the owner or operator must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator, according to §63.1981(h)(7) and (j). The owner or operator must keep records according to §63.1983(e)(5).
- (D) If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured, according to the procedures in §63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv the corrective action(s) for the wellhead temperature standard (62.8 degrees Celsius or 145 degrees Fahrenheit) must be completed within 15 days.
- (5) An owner or operator seeking to demonstrate compliance with §63.1959(b)(2)(ii)(B)(4) through the use of a collection system not conforming to the specifications provided in §63.1962 must provide information satisfactory to the Administrator as specified in §63.1981(d)(3) demonstrating that off-site migration is being controlled.
- (b) For purposes of compliance with §63.1958(a), each owner or operator of a controlled landfill must place each well or design component as specified in the approved design plan as provided in §63.1981(d). Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:
- (1) 5 years or more if active; or
- (2) 2 years or more if closed or at final grade.
- (c) The following procedures must be used for compliance with the surface methane operational standard as provided in §63.1958(d).
- (1) After installation and startup of the gas collection system, the owner or operator must monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in paragraph (d) of this section.
- (2) The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
- (3) Surface emission monitoring must be performed in accordance with section 8.3.1 of EPA Method 21 of appendix A-7 of part 60 of this chapter, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.
- (4) Any reading of 500 ppm or more above background at any location must be recorded as a monitored exceedance and the actions specified in paragraphs (c)(4)(i) through (v) of this section must be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §63.1958(d).

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SECTION E. Source Group Restrictions.

- (i) The location of each monitored exceedance must be marked and the location and concentration recorded. Beginning no later than September 27, 2021, the location must be recorded using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (ii) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 days of detecting the exceedance.
- (iii) If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (c)(4)(v) of this section must be taken, and no further monitoring of that location is required until the action specified in paragraph (c)(4)(v) of this section has been taken.
- (iv) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (c)(4)(ii) or (iii) of this section must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must be taken.
- (v) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device must be installed within 120 days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.
- (5) The owner or operator must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- (d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section must comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
- (1) The portable analyzer must meet the instrument specifications provided in section 6 of EPA Method 21 of appendix A of part 60 of this chapter, except that "methane" replaces all references to "VOC".
- (2) The calibration gas must be methane, diluted to a nominal concentration of 500 ppm in air.
- (3) To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of appendix A of part 60 of this chapter, the instrument evaluation procedures of section 8.1 of EPA Method 21 of appendix A of part 60 must be used.
- (4) The calibration procedures provided in sections 8 and 10 of EPA Method 21 of appendix A of part 60 of this chapter must be followed immediately before commencing a surface monitoring survey.
- (e)(1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standards in introductory paragraph §63.1958(e), the provisions of this subpart apply at all times, except during periods of SSM, provided that the duration of SSM does not exceed 5 days for collection systems and does not exceed 1 hour for treatment or control devices. You must comply with the provisions in Table 1 to subpart AAAA that apply before September 28, 2021.
- (2) Once an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in §63.1958(e)(1), the provisions of this subpart apply at all times, including periods of SSM. During periods of SSM, you must comply with the work practice requirement specified in §63.1958(e) in lieu of the compliance provisions in §63.1960.

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

008 [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.

§63.1962 Specifications for active collection systems.





- (a) Each owner or operator seeking to comply with §63.1959(b)(2)(i) must site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Administrator as provided in §63.1981(d)(2) and (3):
- (1) The collection devices within the interior must be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues must be addressed in the design: Depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, resistance to the refuse decomposition heat, and ability to isolate individual components or sections for repair or troubleshooting without shutting down entire collection system.
- (2) The sufficient density of gas collection devices determined in paragraph (a)(1) of this section must address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- (3) The placement of gas collection devices determined in paragraph (a)(1) of this section must control all gas producing areas, except as provided by paragraphs (a)(3)(i) and (ii) of this section.
- (i) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §63.1983(d). The documentation must provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and must be provided to the Administrator upon request.
- (ii) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material must be documented and provided to the Administrator upon request. A separate NMOC emissions estimate must be made for each section proposed for exclusion, and the sum of all such sections must be compared to the NMOC emissions estimate for the entire landfill.
- (A) The NMOC emissions from each section proposed for exclusion must be computed using Equation 7: [SEE EQUATION #7 IN REGULATION]
- (B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §63.1959(c) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.
- (iii) The values for k and CNMOC determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, Lo and CNMOC provided in §63.1959(a)(1) or the alternative values from §63.1959(a)(5) must be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph (a)(3)(i) of this section.
- (b) Each owner or operator seeking to comply with §63.1959(b)(2)(ii) must construct the gas collection devices using the following equipment or procedures:
- (1) The landfill gas extraction components must be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: Convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system must extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors must be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations must be situated with regard to the need to prevent excessive air infiltration.
- (2) Vertical wells must be placed so as not to endanger underlying liners and must address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors must be of sufficient cross-section so





as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices must be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

- (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly must include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices must be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.
- (c) Each owner or operator seeking to comply with §63.1959(b)(2)(iii) must convey the landfill gas to a control system in compliance with §63.1959(b)(2)(iii) through the collection header pipe(s). The gas mover equipment must be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:
- (1) For existing collection systems, the flow data must be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph (c)(2) of this section must be used.
- (2) For new collection systems, the maximum flow rate must be in accordance with §63.1960(a)(1).

009 [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?

Compliance is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under §63.1961(b)(1), (c)(1), and (d) are used to demonstrate compliance with the operating standards for control systems. If a deviation occurs, you have failed to meet the control device operating standards described in this subpart and have deviated from the requirements of this subpart.

- (a) Before September 28, 2021, you must develop a written SSM plan according to the provisions in §63.6(e)(3) of subpart A. A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart.
- (b) After September 27, 2021, the SSM provisions of §63.6(e) of subpart A no longer apply to this subpart and the SSM plan developed under paragraph (a) of this section no longer applies. Compliance with the emissions standards and the operating standards of §63.1958 of this subpart is required at all times.

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1982]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What records and reports must I submit and keep for bioreactors or liquids addition other than leachate?

[NA - FACILITY DOES NOT MAKE USE OF A BIOREACTOR]

011 [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?

[INCORPORATED BY REFERENCE]

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.

012 [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.





§63.1961 Monitoring of operations.

Except as provided in §63.1981(d)(2):

- (a) Each owner or operator seeking to comply with §63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
- (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §63.1960(a)(3); and
- (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
- (i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by §63.1981(d)(2).
- (ii) Unless an alternative test method is established as allowed by §63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see §63.14). Determine the oxygen level by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 or ASTM D6522-11 (if sample location is prior to combustion) except that:
- (A) The span must be set between 10- and 12-percent oxygen;
- (B) A data recorder is not required;
- (C) Only two calibration gases are required, a zero and span;
- (D) A calibration error check is not required; and
- (E) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
- (iii) A portable gas composition analyzer may be used to monitor the oxygen levels provided:
- (A) The analyzer is calibrated; and
- (B) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated by reference, see §63.14).
- (3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph §63.1958(c), the owner or operator must follow the procedures as specified in §60.756(a)(2) and (3) of this chapter. Monitor temperature of the landfill gas on a monthly basis as provided in §63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter.
- (4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), monitor temperature of the landfill gas on a monthly basis as provided in §63.1960(a)(4). The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2 of appendix A-1 to part 60 of this chapter. Keep records specified in §63.1983(e).
- (5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), unless a higher operating temperature value has been approved by the Administrator under this subpart or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, you must initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as follows:
- (i) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.



- (ii) Monitor oxygen concentration as provided in paragraph (a)(2) of this section;
- (iii) Monitor temperature of the landfill gas at the wellhead as provided in paragraph (a)(4) of this section.
- (iv) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in paragraph (a)(6) of this section.
- (v) Monitor the methane concentration with a methane meter using EPA Method 3C of appendix A-6 to part 60, EPA Method 18 of appendix A-6 to part 60 of this chapter, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.
- (vi) Monitor carbon monoxide concentrations, as follows:
- (A) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of appendix A-4 to part 60 of this chapter, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; and
- (B) Collect and analyze the sample from the wellhead using EPA Method 10 of appendix A-4 to part 60 to measure carbon monoxide concentrations.
- (vii) The enhanced monitoring this paragraph (a)(5) must begin 7 days after the first measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit); and
- (viii) The enhanced monitoring in this paragraph (a)(5) must be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill must return to weekly monitoring.
- (ix) The enhanced monitoring in this paragraph (a)(5) can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 degrees Celsius (145 degrees Fahrenheit).
- (6) For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 degrees Celsius (165 degrees Fahrenheit), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.
- (b) Each owner or operator seeking to comply with §63.1959(b)(2)(iii) using an enclosed combustor must calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:
- (1) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.
- (2) A device that records flow to the control device and bypass of the control device (if applicable). The owner or operator must:
- (i) Install, calibrate, and maintain a gas flow rate measuring device that must record the flow to the control device at least every 15 minutes; and
- (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (c) Each owner or operator seeking to comply with §63.1959(b)(2)(iii) using a non-enclosed flare must install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:
- (1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to





indicate the continuous presence of a flame; and

- (2) A device that records flow to the flare and bypass of the flare (if applicable). The owner or operator must:
- (i) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and
- (ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (d) Each owner or operator seeking to demonstrate compliance with §63.1959(b)(2)(iii) using a device other than a nonenclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in §63.1981(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.
- (e) Each owner or operator seeking to install a collection system that does not meet the specifications in §63.1962 or seeking to monitor alternative parameters to those required by §§63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in §63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.
- (f) Each owner or operator seeking to demonstrate compliance with the 500-ppm surface methane operational standard in §63.1958(d) must monitor surface concentrations of methane according to the procedures in §63.1960(c) and the instrument specifications in §63.1960(d). If you are complying with the 500-ppm surface methane operational standard in §63.1958(d)(2), for location, you must determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in §63.1981(h), you must report the location of each exceedance of the 500-ppm methane concentration as provided in §63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.
- (g) Each owner or operator seeking to demonstrate compliance with §63.1959(b)(2)(iii)(C) using a landfill gas treatment system must calibrate, maintain, and operate according to the manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable). Beginning no later than September 27, 2021, each owner or operator must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in §63.1983(b)(5)(ii). The owner or operator must:
- (1) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and
- (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
- (h) The monitoring requirements of paragraphs (a), (b), (c), (d), and (g) of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph §63.1958(c)(1), (d)(2), and (e)(1), the standards apply at all times.

36-05081



SECTION E. Source Group Restrictions.

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020]

013 [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?

A deviation is defined in §63.1990. For the purposes of the landfill monitoring and SSM plan requirements, deviations include the items in paragraphs (a) through (c) of this section.

- (a) A deviation occurs when the control device operating parameter boundaries described in §63.1983(c)(1) are exceeded.
- (b) A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
- (c) Before September 28, 2021, a deviation occurs when a SSM plan is not developed or maintained on site and when an affected source fails to meet any emission limitation, (including any operating limit), or work practice requirement in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart.

IV. RECORDKEEPING REQUIREMENTS.

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1983]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What records must I keep?

§63.1983 What records must I keep?

You must keep records as specified in this subpart. You must also keep records as specified in the general provisions of 40 CFR part 63 as shown in Table 1 to this subpart.

- (a) Except as provided in §63.1981(d)(2), each owner or operator of an MSW landfill subject to the provisions of §63.1959(b)(2)(ii) and (iii) of this chapter must keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered §63.1959(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
- (b) Except as provided in §63.1981(d)(2), each owner or operator of a controlled landfill must keep up-to-date, readily accessible records for the life of the control system equipment of the data listed in paragraphs (b)(1) through (5) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. Records of the control device vendor specifications must be maintained until removal.
- (1) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §63.1959(b)(2)(ii):
- (i) The maximum expected gas generation flow rate as calculated in §63.1960(a)(1).
- (ii) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §63.1962(a)(1) and (2).
- (2) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §63.1959(b)(2)(iii) through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:
- (i) The average temperature measured at least every 15 minutes and averaged over the same time period of the performance test.
- (ii) The percent reduction of NMOC determined as specified in §63.1959(b)(2)(iii)(B) achieved by the control device.





- (3) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §63.1959(b)(2)(iii)(B)(1) through use of a boiler or process heater of any size: A description of the location at which the collected gas vent stream is introduced into the boiler or process heater over the same time period of the performance testing.
- (4) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §63.1959(b)(2)(iii)(A) through use of a non-enclosed flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in §63.11; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.
- (5) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §63.1959(b)(2)(iii)(C) through use of a landfill gas treatment system:
- (i) Bypass records. Records of the flow of landfill gas to, and bypass of, the treatment system.
- (ii) Site-specific treatment monitoring plan. Beginning no later than September 27, 2021, the owner or operator must prepare a site-specific treatment monitoring plan to include:
- (A) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.
- (B) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.
- (C) Documentation of the monitoring methods and ranges, along with justification for their use.
- (D) List of responsible staff (by job title) for data collection.
- (E) Processes and methods used to collect the necessary data.
- (F) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems (CMS).
- (c) Except as provided in §63.1981(d)(2), each owner or operator of a controlled landfill subject to the provisions of this subpart must keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §63.1961 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
- (1) The following constitute exceedances that must be recorded and reported under §63.1981(h):
- (i) For enclosed combustors except for boilers and process heaters with design heat input capacity of 44 megawatts (150 million Btu per hour) or greater, all 3-hour periods of operation during which the average temperature was more than 28 degrees Celsius (82 degrees Fahrenheit) below the average combustion temperature during the most recent performance test at which compliance with §63.1959(b)(2)(iii) was determined.
- (ii) For boilers or process heaters, whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under paragraph (b)(3) of this section.
- (2) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible continuous records of the indication of flow to the control system and the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under §63.1961(b)(2)(ii), (c)(2)(ii), and (g)(2).
- (3) Each owner or operator subject to the provisions of this subpart who uses a boiler or process heater with a design heat input capacity of 44 megawatts or greater to comply with §63.1959(b)(2)(iii) must keep an up-to-date, readily accessible





record of all periods of operation of the boiler or process heater. Examples of such records could include records of steam use, fuel use, or monitoring data collected pursuant to other state, local, tribal, or federal regulatory requirements.

- (4) Each owner or operator seeking to comply with the provisions of this subpart by use of a non-enclosed flare must keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §63.1961(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
- (5) Each owner or operator of a landfill seeking to comply with §63.1959(b)(2) using an active collection system designed in accordance with §63.1959(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.
- (6) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in §63.1958(e)(1), the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.
- (7) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard in §63.1958(e)(1), in the event that an affected unit fails to meet an applicable standard, record the information below in this paragraph:
- (i) For each failure record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable).
- (ii) For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment.
- (iii) Record actions taken to minimize emissions in accordance with the general duty of §63.1955(c) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
- (8) Beginning no later than September 27, 2021, in lieu of the requirements specified in §63.8(d)(3) of subpart A you must keep the written procedures required by §63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you must keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under §63.8(d)(2).
- (d) Except as provided in §63.1981(d)(2), each owner or operator subject to the provisions of this subpart must keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
- (1) Each owner or operator subject to the provisions of this subpart must keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under §63.1960(b).
- (2) Each owner or operator subject to the provisions of this subpart must keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in §63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §63.1962(a)(3)(ii).
- (e) Except as provided in §63.1981(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of the following:
- (1) All collection and control system exceedances of the operational standards in §63.1958, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
- (2) Each owner or operator subject to the control provisions of this subpart must keep records of each wellhead temperature monitoring value of greater than 55 degrees Celsius (131 degrees Fahrenheit), each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent, except:
- (i) When an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the





compliance provisions for wellhead temperature in §63.1958(c)(1), but no later than September 27, 2021, the records of each wellhead temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above instead of values greater than 55 degrees Celsius (131 degrees Fahrenheit).

- (ii) Each owner or operator required to conduct the enhanced monitoring provisions in §63.1961(a)(5), must also keep records of all enhanced monitoring activities.
- (iii) Each owner or operator required to submit the 24-hour high temperature report in §63.1981(k), must also keep a record of the email transmission.
- (3) For any root cause analysis for which corrective actions are required in §63.1960(a)(3)(i)(A) or (a)(4)(i)(A), keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.
- (4) For any root cause analysis for which corrective actions are required in §63.1960(a)(3)(i)(B) or (a)(4)(i)(B), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (5) For any root cause analysis for which corrective actions are required in §63.1960(a)(3)(i)(C) or (a)(4)(i)(C), keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the positive pressure reading or high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the Administrator.
- (f) Landfill owners or operators who convert design capacity from volume to mass or mass to volume to demonstrate that landfill design capacity is less than 2.5 million Mg or 2.5 million m3, as provided in the definition of "design capacity," must keep readily accessible, on-site records of the annual recalculation of site-specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.
- (g) Except as provided in §63.1981(d)(2), each owner or operator subject to the provisions of this subpart must keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in §63.1961(a)(1) through (6).
- (h) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), you must keep the following records.
- (1) Records of the landfill gas temperature on a monthly basis as monitored in §63.1960(a)(4).
- (2) Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 degrees Celsius (145 degrees Fahrenheit) as gathered in §63.1961(a)(5) and (6).
- (i) Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.
- (ii) [Reserved]

[85 FR 17261, Mar. 26, 2020, as amended at 85 FR 64401, Oct. 13, 2020]

V. REPORTING REQUIREMENTS.

015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1981]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What reports must I submit?

§63.1981 What reports must I submit?



You must submit the reports specified in this section and the reports specified in Table 1 to this subpart. If you have previously submitted a design capacity report, amended design capacity report, initial NMOC emission rate report, initial or revised collection and control system design plan, closure report, equipment removal report, or initial performance test under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, then that submission constitutes compliance with the design capacity report in paragraph (a) of this section, the amended design capacity report in paragraph (b) of this section, the initial NMOC emission rate report in paragraph (c) of this section, the initial collection and control system design plan in paragraph (d) of this section, the revised design plan in paragraph (e) of this section, the closure report in paragraph (f) of this section, the equipment removal report in paragraph (g) of this section, and the initial performance test report in paragraph (i) of this section. You do not need to re-submit the report(s). However, you must include a statement certifying prior submission of the respective report(s) and the date of submittal in the first semi-annual report required in this section.

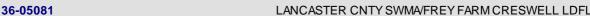
- (a) Initial design capacity report. The initial design capacity report must contain the information specified in §60.757(a)(2) of this chapter, except beginning no later than September 28, 2021, the report must contain:
- (1) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the permit issued by the state, local, or tribal agency responsible for regulating the landfill.
- (2) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the state, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity must be calculated using good engineering practices. The calculations must be provided, along with the relevant parameters as part of the report. The landfill may calculate design capacity in either Mg or m3 for comparison with the exemption values. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million Mg or 2.5 million m3, the calculation must include a site-specific density, which must be recalculated annually. Any density conversions must be documented and submitted with the design capacity report. The state, tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.
- (b) Amended design capacity report. An amended design capacity report must be submitted to the Administrator providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million Mg and 2.5 million m3. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §63.1983(f).
- (c) NMOC emission rate report. Each owner or operator subject to the requirements of this subpart must submit a copy of the latest NMOC emission rate report that was submitted according to §60.757(b) of this chapter or submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate. If you have submitted an annual report under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf, then that submission constitutes compliance with the annual NMOC emission rate report in this paragraph. You do not need to re-submit the annual report for the current year. Beginning no later than September 27, 2021, the report must meet the following requirements:
- (1) The NMOC emission rate report must contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §63.1959(a) or (b), as applicable.
- (i) The initial NMOC emission rate report must be submitted no later than 90 days after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.
- (ii) Subsequent NMOC emission rate reports must be submitted annually thereafter, except as provided for in paragraph (c)(1)(ii)(A) of this section.
- (A) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 Mg/yr in each





of the next 5 consecutive years, the owner or operator may elect to submit, an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate must include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based must be provided to the Administrator. This estimate must be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate must be submitted to the Administrator. The revised estimate must cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

- (B) The report must be submitted following the procedure specified in paragraph (I)(2) of this section.
- (2) The NMOC emission rate report must include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
- (3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements to submit an NMOC emission rate report, after installing a collection and control system that complies with §63.1959(b)(2), during such time as the collection and control system is in operation and in compliance with §63.1958 and 63.1960.
- (d) Collection and control system design plan. Each owner or operator subject to the provisions of §63.1959(b)(2) must submit a collection and control system design plan to the Administrator for approval according to §60.757(c) of this chapter and the schedule in §60.757(c)(1) and (2). Beginning no later than September 27, 2021, each owner or operator subject to the provisions of §63.1959(b)(2) must submit a collection and control system design plan to the Administrator according to paragraphs (d)(1) through (6) of this section. The collection and control system design plan must be prepared and approved by a professional engineer.
- (1) The collection and control system as described in the design plan must meet the design requirements in §63.1959(b)(2).
- (2) The collection and control system design plan must include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§63.1957 through 63.1983 proposed by the owner or operator.
- (3) The collection and control system design plan must either conform with specifications for active collection systems in §63.1962 or include a demonstration to the Administrator's satisfaction of the sufficiency of the alternative provisions to §63.1962.
- (4) Each owner or operator of an MSW landfill affected by this subpart must submit a collection and control system design plan to the Administrator for approval within 1 year of becoming subject to this subpart.
- (5) The landfill owner or operator must notify the Administrator that the design plan is completed and submit a copy of the plan's signature page. The Administrator has 90 days to decide whether the design plan should be submitted for review. If the Administrator chooses to review the plan, the approval process continues as described in paragraph (d)(6) of this section. In the event that the design plan is required to be modified to obtain approval, the owner or operator must take any steps necessary to conform any prior actions to the approved design plan and any failure to do so could result in an enforcement action.
- (6) Upon receipt of an initial or revised design plan, the Administrator must review the information submitted under paragraphs (d)(1) through (3) of this section and either approve it, disapprove it, or request that additional information be submitted. Because of the many site-specific factors involved with landfill gas system design, alternative systems may be necessary. A wide variety of system designs are possible, such as vertical wells, combination horizontal and vertical collection systems, or horizontal trenches only, leachate collection components, and passive systems.
- (e) Revised design plan. Beginning no later than September 27, 2021, the owner or operator who has already been required to submit a design plan under paragraph (d) of this section must submit a revised design plan to the Administrator for approval as follows:
- (1) At least 90 days before expanding operations to an area not covered by the previously approved design plan.





- (2) Prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Administrator according to paragraph (d) of this section.
- (f) Closure report. Each owner or operator of a controlled landfill must submit a closure report to the Administrator within 30 days of waste acceptance cessation. The Administrator may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of §258.60 of this chapter. If a closure report has been submitted to the Administrator, no additional wastes may be placed into the landfill without filing a notification of modification as described under §63.9(b) of subpart A.
- (g) Equipment removal report. Each owner or operator of a controlled landfill must submit an equipment removal report as provided in §60.757(e) of this chapter. Each owner or operator of a controlled landfill must submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.
- (1) Beginning no later than September 27, 2021, the equipment removal report must contain all of the following items:
- (i) A copy of the closure report submitted in accordance with paragraph (f) of this section;
- (ii) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's Central Data Exchange (CDX); and
- (iii) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.
- (2) The Administrator may request such additional information as may be necessary to verify that all of the conditions for removal in §63.1957(b) have been met.
- (h) Semi-annual report. The owner or operator of a landfill seeking to comply with §63.1959(b)(2) using an active collection system designed in accordance with §63.1959(b)(2)(ii) must submit to the Administrator semi-annual reports. Beginning no later than September 27, 2021, you must submit the report, following the procedure specified in paragraph (I) of this section. The initial report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under §63.7 of subpart A, as applicable. In the initial report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §63.1983(c). The semi-annual reports must contain the information in paragraphs (h)(1) through (8) of this section.
- (1) Number of times that applicable parameters monitored under §63.1958(b), (c), and (d) were exceeded and when the gas collection and control system was not operating under §63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance.
- (i) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph §63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under §63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance.
- (ii) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under §63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance.



- (iii) Beginning no later than September 27, 2021, number of times the parameters for the site-specific treatment system in §63.1961(g) were exceeded.
- (2) Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under §63.1961.
- (3) Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.
- (4) All periods when the collection system was not operating.
- (5) The location of each exceedance of the 500-ppm methane concentration as provided in §63.1958(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. Beginning no later than September 27, 2021, for location, you record the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates must be in decimal degrees with at least five decimal places.
- (6) The date of installation and the location of each well or collection system expansion added pursuant to §63.1960(a)(3) and (4), (b), and (c)(4).
- (7) For any corrective action analysis for which corrective actions are required in §63.1960(a)(3)(i) or (a)(5) and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure or high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- (8) Each owner or operator required to conduct enhanced monitoring in §§63.1961(a)(5) and (6) must include the results of all monitoring activities conducted during the period.
- (i) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.
- (ii) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.
- (iii) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.
- (i) Initial performance test report. Each owner or operator seeking to comply with §63.1959(b)(2)(iii) must include the following information with the initial performance test report required under §63.7 of subpart A:
- (1) A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;
- (2) The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;
- (3) The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;
- (4) The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area;
- (5) The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and





- (6) The provisions for the control of off-site migration.
- (j) Corrective action and the corresponding timeline. The owner or operator must submit information regarding corrective actions according to paragraphs (j)(1) and (2) of this section.
- (1) For corrective action that is required according to §63.1960(a)(3) or (4) and is not completed within 60 days after the initial exceedance, you must submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.
- (2) For corrective action that is required according to §63.1960(a)(3) or (4) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 degrees Celsius (145 degrees Fahrenheit) or above. The Administrator must approve the plan for corrective action and the corresponding timeline.
- (k) 24-hour high temperature report. Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1) and a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 degrees Celsius (170 degrees Fahrenheit) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, then you must report the date, time, well identifier, temperature and carbon monoxide reading via email to the Administrator within 24 hours of the measurement unless a higher operating temperature value has been approved by the Administrator for the well under this subpart or under 40 CFR part 60, subpart WWW; 40 CFR part 60, subpart XXX; or a Federal plan or EPA approved and effective state plan or tribal plan that implements either 40 CFR part 60, subpart Cc or 40 CFR part 60, subpart Cf.
- (I) Electronic reporting. Beginning no later than September 27, 2021, the owner or operator must submit reports electronically according to paragraphs (I)(1) and (2) of this section.
- (1) Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (I)(1)(i) through (iii) of this section.
- (i) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.
- (ii) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.
- (iii) Confidential business information (CBI). If you claim some of the information submitted under paragraph (a) of this section is CBI, you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA'OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (I)(1)(i) of this section.
- (2) Each owner or operator required to submit reports following the procedure specified in this paragraph must submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the owner or operator must begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate



reports, semi-annual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the owner or operator must submit the reports to the Administrator at the appropriate address listed in §63.13 of subpart A.

- (m) Claims of EPA system outage. Beginning no later than September 27, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to comply timely with the reporting requirement. To assert a claim of EPA system outage, you must meet the following requirements:
- (1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.
- (2) The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due.
- (3) The outage may be planned or unplanned.
- (4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (5) You must provide to the Administrator a written description identifying:
- (i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
- (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.
- (n) Claims of force majeure. Beginning no later than September 2, 2021, if you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to comply timely with the reporting requirement. To assert a claim of force majeure, you must meet the following requirements:
- (1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).
- (2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
- (3) You must provide to the Administrator:
- (i) A written description of the force majeure event;
- (ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;



- (iii) Measures taken or to be taken to minimize the delay in reporting; and
- (iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.
- (4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.
- (5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

VI. WORK PRACTICE REQUIREMENTS.

016 [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.

§63.1959 NMOC calculation procedures.

- (a) Calculate the NMOC emission rate using the procedures specified in §60.754(a) of this chapter, except:
- (1) NMOC emission rate. Beginning no later than September 27, 2021 the landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for k, 170 cubic meters per megagram (m3/Mg) for LO, and 4,000 parts per million by volume (ppmv) as hexane for the CNMOC. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.
- (a)(1)(i)(A) [SEE EQUATION #1 IN REGULATION]
- (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 Mi if documentation of the nature and amount of such wastes is maintained.
- (a)(1)(ii)(A) [SEE EQUATION #2 IN REGULATION]
- (B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.
- (2) Tier 1. The owner or operator must compare the calculated NMOC mass emission rate to the standard of 50 Mg/yr.
- (i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 Mg/yr, then the landfill owner or operator must submit an NMOC emission rate report according to §63.1981(c) and must recalculate the NMOC mass emission rate annually as required under paragraph (b) of this section.
- (ii) If the calculated NMOC emission rate as calculated in paragraph (a)(1) of this section is equal to or greater than 50 Mg/yr, then the landfill owner must either:
- (A) Submit a gas collection and control system design plan within 1 year as specified in §63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, according to paragraphs (b)(2)(ii) and (iii) of this section;
- (B) Determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the Tier 2 procedures provided in paragraph (a)(3) of this section; or
- (C) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the Tier 3 procedures provided in paragraph (a)(4) of this section.





- (3) Tier 2. The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using EPA Method 25 or 25C of appendix A-7 to part 60. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 to part 60 by 6 to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, EPA Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe must be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples must be collected from the header pipe.
- (i) Within 60 days after the date of completing each performance test (as defined in §63.7 of subpart A), the owner or operator must submit the results according to §63.1981(I)(1).
- (ii) The landfill owner or operator must recalculate the NMOC mass emission rate using Equation 1 or Equation 2 provided in paragraph (a)(1)(i) or (ii) of this section and use the average site-specific NMOC concentration from the collected samples instead of the default value provided in paragraph (a)(1) of this section.
- (iii) If the resulting NMOC mass emission rate is less than 50 Mg/yr, then the owner or operator must submit a periodic estimate of NMOC emissions in an NMOC emission rate report according to §63.1981(c) and must recalculate the NMOC mass emission rate annually as required under paragraph (b) of this section. The site-specific NMOC concentration must be retested every 5 years using the methods specified in this section.
- (iv) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration is equal to or greater than 50 Mg/yr, the landfill owner or operator must either:
- (A) Submit a gas collection and control system design plan within 1 year as specified in §63.1981(d) and install and operate a gas collection and control system within 30 months according to paragraphs (b)(2)(ii) and (iii) of this section; or
- (B) Determine a site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the Tier 3 procedures specified in paragraph (a)(4) of this section.
- (4) Tier 3. The site-specific methane generation rate constant must be determined using the procedures provided in EPA Method 2E of appendix A-1 to part 60 of this chapter. The landfill owner or operator must estimate the NMOC mass emission rate using Equation 1 or Equation 2 in paragraph (a)(1)(i) or (ii) of this section and using a site-specific methane generation rate constant, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator must compare the resulting NMOC mass emission rate to the standard of 50 Mg/yr.
- (i) If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 50 Mg/yr, the owner or operator must:
- (A) Submit a gas collection and control system design plan within 1 year as specified in §63.1981(d) and install and operate a gas collection and control system within 30 months of the first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, according to paragraphs (b)(2)(ii) and (iii) of this section.
- (B) [Reserved]





- (ii) If the NMOC mass emission rate is less than 50 Mg/yr, then the owner or operator must recalculate the NMOC mass emission rate annually using Equation 1 or Equation 2 in paragraph (a)(1) of this section and using the site-specific Tier 2 NMOC concentration and Tier 3 methane generation rate constant and submit a periodic NMOC emission rate report as provided in §63.1981(c). The calculation of the methane generation rate constant is performed only once, and the value obtained from this test must be used in all subsequent annual NMOC emission rate calculations.
- (5) Other methods. The owner or operator may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in paragraphs (a)(3) and (4) of this section if the method has been approved by the Administrator.
- (b) Each owner or operator of an affected source having a design capacity equal to or greater than 2.5 million Mg and 2.5 million m3 must either comply with paragraph (b)(2) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in paragraph (a) of this section. The NMOC emission rate must be recalculated annually, except as provided in §63.1981(c)(1)(ii)(A).
- (1) If the calculated NMOC emission rate is less than 50 Mg/yr, the owner or operator must:
- (i) Submit an annual NMOC emission rate emission report to the Administrator, except as provided for in §63.1981(c)(1)(ii); and
- (ii) Recalculate the NMOC emission rate annually using the procedures specified in paragraph (a)(1) of this section until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg/yr, or the landfill is closed.
- (A) If the calculated NMOC emission rate, upon initial calculation or annual recalculation required in paragraph (b) of this section, is equal to or greater than 50 Mg/yr, the owner or operator must either: comply with paragraph (b)(2) of this section or calculate NMOC emissions using the next higher tier in paragraph (a) of this section.
- (B) If the landfill is permanently closed, a closure report must be submitted to the Administrator as provided for in §63.1981(f).
- (2) If the calculated NMOC emission rate is equal to or greater than 50 Mg/yr using Tier 1, 2, or 3 procedures, the owner or operator must either:
- (i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year as specified in §63.1981(d) or calculate NMOC emissions using the next higher tier in paragraph (a) of this section. The collection and control system must meet the requirements in paragraphs (b)(2)(ii) and (iii) of this section.
- (ii) Collection system. Install and start up a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(B) or (C) and (b)(2)(iii) of this section within 30 months after:
- (A) The first annual report in which the NMOC emission rate equals or exceeds 50 Mg/yr, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 Mg.
- (B) An active collection system must:
- (1) Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment;
- (2) Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade;
- (3) Collect gas at a sufficient extraction rate; and
- (4) Be designed to minimize off-site migration of subsurface gas.
- (C) A passive collection system must:





- (1) Comply with the provisions specified in paragraphs (b)(2)(ii)(B)(1), (2), and (3) of this section; and
- (2) Be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners must be installed as required under §258.40 of this chapter.
- (iii) Control system. Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii)(A), (B), or (C) of this section.
- (A) A non-enclosed flare designed and operated in accordance with the parameters established in §63.11(b) except as noted in paragraph (e) of this section; or
- (B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane at 3-percent oxygen. The reduction efficiency or ppmv must be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in paragraph (e) of this section. The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this subpart.
- (1) If a boiler or process heater is used as the control device, the landfill gas stream must be introduced into the flame zone.
- (2) The control device must be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in §§63.1961(b) through (e);
- (C) A treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-British thermal unit (Btu) gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (b)(2)(iii)(A) or (B) of this section.
- (D) All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of this section. For purposes of this subpart, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of paragraph (b)(2)(iii)(A) or (B) of this section.
- (c) After the installation and startup of a collection and control system in compliance with this subpart, the owner or operator must calculate the NMOC emission rate for purposes of determining when the system can be capped, removed, or decommissioned as provided in §63.1957(b)(3), using Equation 3 [SEE EQUATION #3 IN THE REGULATION]
- (1) The flow rate of landfill gas, QLFG, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of EPA Method 2E of appendix A-1 of part 60.
- (2) The average NMOC concentration, CNMOC, must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in EPA Method 25 or 25C of appendix A-7 to part 60 of this chapter. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 to part 60 by 6 to convert from CNMOC as carbon to CNMOC as hexane.
- (3) The owner or operator may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the Administrator.
- (i) Within 60 days after the date of completing each performance test (as defined in §63.7), the owner or operator must submit the results of the performance test, including any associated fuel analyses, according to §63.1981(I)(1).
- (ii) [Reserved]
- (d) For the performance test required in §63.1959(b)(2)(iii)(B), EPA Method 25 or 25C (EPA Method 25C of appendix A-7 to



part 60 of this chapter may be used at the inlet only) of appendix A of this part must be used to determine compliance with the 98 weight-percent efficiency or the 20- ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the Administrator as provided by §63.1981(d)(2). EPA Method 3, 3A, or 3C of appendix A-7 to part 60 must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), EPA Method 25A should be used in place of EPA Method 25. EPA Method 18 may be used in conjunction with EPA Method 25A on a limited basis (compound specific, e.g., methane) or EPA Method 3C may be used to determine methane. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon to CNMOC as hexane. Equation 4 must be used to calculate efficiency: [SEE EQUATION #4 IN THE REGULATION].

- (e) For the performance test required in §63.1959(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §63.11(b)(6)(ii) is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C of appendix A to part 60 of this chapter. A minimum of three 30-minute EPA Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. EPA Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §63.11(b)(7) of subpart A.
- (1) Within 60 days after the date of completing each performance test (as defined in §63.7), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §63.1959(c) or (e) according to §63.1981(I)(1).
- (2) [Reserved]
- (f) The performance tests required in §§63.1959(b)(2)(iii)(A) and (B), must be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown unless specified by the Administrator. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

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

017 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1975]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills How do I calculate the 3-hour block average used to demonstrate compliance?

Before September 28, 2021, averages are calculated in the same way as they are calculated in 40 CFR part 60, subpart WWW (§60.758(b)(2)(i) for average combustion temperature and §60.758(c) for 3-hour average combustion temperature for enclosed combustors), except that the data collected during the events listed in paragraphs (a) through (d) of this section are not to be included in any average computed under this subpart. Beginning no later than September 27, 2021, averages are calculated according to §§63.1983(b)(2)(i) and 63.1983(c)(1)(i) and the data collected during the events listed in paragraphs (a) through (d) of this section are included in any average computed under this subpart.

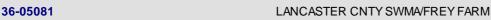
- (a) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments.
- (b) Startups.
- (c) Shutdowns.
- (d) Malfunctions.

VII. ADDITIONAL REQUIREMENTS.

018 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1930]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills What is the purpose of this subpart?

§63.1930 What is the purpose of this subpart?





This subpart establishes national emission standards for hazardous air pollutants for existing and new municipal solid waste (MSW) landfills.

- (a) Before September 28, 2021, all landfills described in §63.1935 must meet the requirements of 40 CFR part 60, subpart WWW, or an approved state or federal plan that implements 40 CFR part 60, subpart Cc, and requires timely control of bioreactors and additional reporting requirements. Landfills must also meet the startup, shutdown, and malfunction (SSM) requirements of the general provisions as specified in Table 1 to subpart AAAA of this part and must demonstrate compliance with the operating conditions by parameter monitoring results that are within the specified ranges. Specifically, landfills must meet the following requirements of this subpart that apply before September 28, 2021, as set out in: §§63.1955(a), 63.1955(b), 63.1965(a), 63.1965(c), 63.1975, 63.1981(a), 63.1981(b), and 63.1982, and the definitions of "Controlled landfill" and "Deviation" in §63.1990.
- (b) Beginning no later than September 27, 2021, all landfills described in §63.1935 must meet the requirements of this subpart. A landfill may choose to meet the requirements of this subpart rather than the requirements identified in §63.1930(a) at any time before September 27, 2021. The requirements of this subpart apply at all times, including during periods of SSM, and the SSM requirements of the General Provisions of this part do not apply.

[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?

§63.1935 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) [NA FACILITY IS NOT A MAJOR SOURCE]
- (2) [NA FACILITY IS NOT COLLOCATED WITH A MAJOR SOURCE]
- (3) Your MSW landfill is an area source landfill that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m3) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC as calculated according to § 63.1959.[NOTE: THIS SUBPART DOES NOT APPLY TO THE LANDFILL UNTIL THE NMOC EMISSION GENERATIION RATE IS EQUAL TO OR GREATER THAN 50Mg/yr]
- (b) [NA FACILITY DOES NOT MAKE USE OF A BIOREACTOR]

[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?

§63.1940 What is the affected source of this subpart?

- (a) An affected source of this subpart is a MSW landfill, as defined in §63.1990, that meets the criteria in §63.1935(a) or (b). The affected source includes the entire disposal facility in a contiguous geographic space where household waste is placed in or on land, including any portion of the MSW landfill operated as a bioreactor.
- (b) [NA FACILITY IS AN EXISTING SOURCE]
- (c) An affected source of this subpart is existing if it is not new.

021 [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?

§63.1945 When do I have to comply with this subpart?

(a) [NA - FACILITY IS AN EXISTING SOURCE]





(b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.

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

022 [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?

[INCORPORATED BY REFERENCE]

*** Permit Shield in Effect. ***





Group Name: GROUP 007

Group Description: 40 CFR Part 61, Subpart M

Sources included in this group

ID Name

LF002 LANDFILL - FREY FARM SITE

LF004 FREY FARM VERTICAL EXPANSION

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 61 NESHAPs §40 CFR 61.154]

Subpart M--National Emission Standard for Asbestos Standard for active waste disposal sites.

61.154 - Standard for active waste disposal sites.

Each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §61.149, 61.150, or 61.155 shall meet the requirements of this section:

- 61.154(a) Either there must be no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited, or the requirements of paragraph (c) or (d) of this section must be met.
- 61.154(b) Unless a natural barrier adequately deters access by the general public, either warning signs and fencing must be installed and maintained as follows, or the requirements of paragraph (c)(1) of this section must be met.
- 61.154(b)(1) Warning signs must be displayed at all entrances and at intervals of 100 m (330 ft) or less along the property line of the site or along the perimeter of the sections of the site where asbestos-containing waste material is deposited. The warning signs must:
- 61.154(b)(1)(i) Be posted in such a manner and location that a person can easily read the legend; and
- 61.154(b)(1)(ii) Conform to the requirements of 51 cm \times 36 cm (20 inch \times 14 inch) upright format signs specified in 29 CFR 1910.145(d)(4) and this paragraph; and
- 61.154(b)(1)(iii) Display the following "Legend" in the lower panel with letter sizes and styles of a visibility at least equal to those specified in this paragraph:

Asbestos Waste Disposal Site: In 2.5 cm (1 inch) Sans Serif, Gothic or Block.

Do Not Create Dust: In 1.9 cm (3/4 inch) Sans Serif, Gothic or Block.

Breathing Asbestos is Hazardous to Your Health: In 14 Point Gothic.

Spacing between any two lines must be at least equal to the height of the upper of the two lines.

- 61.154(b)(2) The perimeter of the disposal site must be fenced in a manner adequate to deter access by the general public.
- 61.154(b)(3) Upon request and supply of appropriate information, the Administrator will determine whether a fence or a natural barrier adequately deters access by the general public.
- 61.154(c) Rather than meet the no visible emission requirement of paragraph (a) of this section, at the end of each operating day, or at least once every 24-hour period while the site is in continuous operation, the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:
- 61.154(c)(1) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material, or





- 61.154(c)(2) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.
- 61.154(d) Rather than meet the no visible emission requirement of paragraph (a) of this section, use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in §61.149(c)(2).
- 61.154(e) For all asbestos-containing waste material received, the owner or operator of the active waste disposal site shall:
- 61.154(e)(1) Maintain waste shipment records, using a form similar to that shown in Figure 4, and include the following information:
- 61.154(e)(1)(i) The name, address, and telephone number of the waste generator.
- 61.154(e)(1)(ii) The name, address, and telephone number of the transporter(s).
- 61.154(e)(1)(iii) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
- 61.154(e)(1)(iv) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
- 61.154(e)(1)(v) The date of the receipt.
- 61.154(e)(2) As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
- 61.154(e)(3) Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
- 61.154(e)(4) Retain a copy of all records and reports required by this paragraph for at least 2 years.
- 61.154(f) Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area.
- 61.154(g) Upon closure, comply with all the provisions of §61.151.
- 61.154(h) Submit to the Administrator, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
- 61.154(i) Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required under this section.
- 61.154(j) Notify the Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestoscontaining waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a

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date other than the one contained in the original notice, notice of the new start date must be provided to the Administrator at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:

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

(Secs. 112 and 301(a) of the Clean Air Act as amended (42 U.S.C. 7412, 7601(a))

[49 FR 13661, Apr. 5, 1990. Redesignated and amended at 55 FR 48431, Nov. 20, 1990; 56 FR 1669, Jan. 16, 1991]

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. ***



36-05081



SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.



SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.





SECTION H. Miscellaneous.

This permit renewal incorporates the requirements from both operating permit 36-05081 issued on July 12, 2016, and plan approval 36-05081B issued on September 14, 2017, and supercedes those requirements.

The following activities do not require any emission testing and monitoring requirements, reporting requirements and work practice standards:

Maintenance Building Waste Oil Heater (0.3 mmBtu/hr)
Maintenance Parts Washer (0% VOC cleaning solution)
Truck Wash Waste Oil Heater (0.1 mmBtu/hr)
Leachate Tank Covered
Diesel Fuel Storage Tanks
Waste Oil Storage Tanks
Gasoline Storage Tanks



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