

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: August 25, 2021 Effective Date: August 25, 2021

Expiration Date: July 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: 10-00284

Federal Tax Id - Plant Code: 25-1657390-1

Owner Information

Name: SENECA LANDFILL, INC. Mailing Address: PO BOX 1080 MARS, PA 16046-1080						
Plant Information						
Plant: SENECA LANDFILL INC/SENECA Location: 10 Butler County SIC Code: 4953 Trans. & Utilities - Refuse Systems	10932 Jackson Township					
Responsible Official						
Name: EDWARD R VOGEL Title: VICE-PRESIDENT Phone: (724) 625 - 1511	Email: ervogel@vogeldisposal.com					
Permit Contact Person						
Name: DAVID L SMITH Title: GENERAL MANAGER Phone: (724) 816 - 4757	Email: dsmith@senecalandfill.com					
[Signature]	PROGRAMMANAGER					



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

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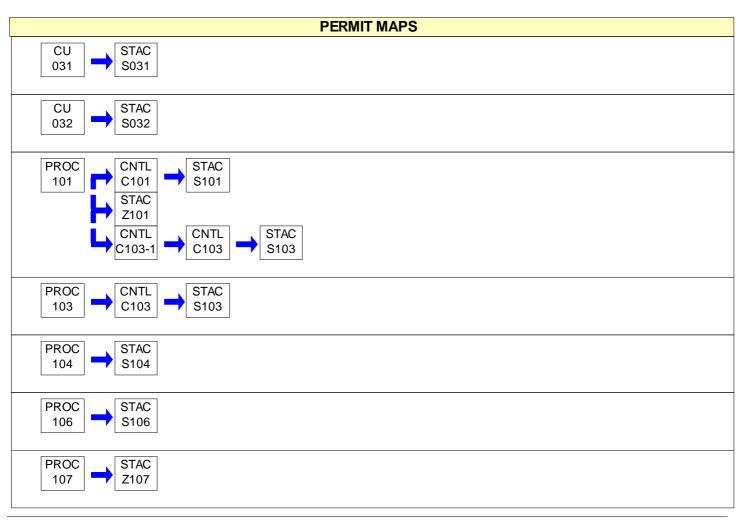
SECTION A. Site Inventory List

SECTION	ON A. Site Inventory List			
Source	ID Source Name	Capacity/	Throughput	Fuel/Material
031	WASTEWATER TREATMENT PLANT STEAM BOILER	3.800	MMBTU/HR	
		3.000	MCF/HR	Natural Gas
032 PROCESS HEAT, 2 BOILERS AT HIGH BTU PLANT, 1 BOILER AT WWTP	1.190	MMBTU/HR		
	BOILER AT WWTP	1.170	MCF/HR	Natural Gas
101	MUNICIPAL WASTE LANDFILL	137.000	MCF/HR	LFG
		67.000	Tons/HR	WASTE
103	LFG PROCESSING PLANT (4,000 SCFM) (AKA HIGH BTU PLANT)	240.000	MCF/HR	LFG
104	335 KW LANDFILL GAS ENGINE/GENERATOR	1.000	MCF/HR	LANDFILL GAS
106	67 HP DUETZ DIESEL ENGINE (ORIG EXTEC 5000S SCREEN PLANT)	1.000	Gal/HR	Diesel Fuel
107	PARTS WASHER	1.000	Gal/HR	ZEP DYNA 143 SOLVENT
108	PORTABLE NONMETALLIC MINERAL PROCESSING	175.000	Tons/HR	STONE
	PLANT	350.000	Tons/HR	STONE
110	67 HP DUETZ DIESEL ENGINE (2ND EXTEC 5000S PORTABLE SCREEN)	1.000	Gal/HR	Diesel Fuel
111	MORBARK GRINDER DIESEL ENGINE, CAT C13, 440 BHP S/N LGK00651	22.700	Gal/HR	ULTRA LOW SULFUR DIE
112	VERMEER WOOD GRINDER DIESEL ENG. 630 HP CAT C16 S/N BFM01160	30.910	Gal/HR	ULTRA LOW SULFUR DIE
113	ROCK CRUSHER DIESEL ENGINE, CAT C9, 350 BHP S/N MBD05626	18.600	Gal/HR	ULTRA LOW SULFUR DIE
114	NEW DIESEL TIPPER #1 ENG. JOHN DEERE MODEL:JD6068HF285 180HP	9.500	Gal/HR	ULTRA LOW SULFUR DIE
115	OLD DIESEL TIPPER #2 ENG. JOHN DEERE MODEL:JD6068HF286 180HP	9.500	Gal/HR	ULTRA LOW SULFUR DIE
116	GENERATOR ENGINE, GE JENBACHER JGS420,	12.318	MMBTU/HR	
1,96	,966 BHP	1.000	MCF/HR	LANDFILL GAS OR LFG / 1
117	GENERATOR ENGINE, GE JENBACHER JGS420,	12.318	MMBTU/HR	
	1,966 BHP	1.000	MCF/HR	LANDFILL GAS OR LFG / 1
301	330 HP DETROIT DIESEL-FUELED EMERGENCY GENERATOR #1	1.000	Gal/HR	Diesel Fuel
302	725 HP CATERPILLAR D348 DIESEL FUELED EMERGENCY GENERATOR #2	1.000	Gal/HR	Diesel Fuel
C101	6000 CFM JOHN ZINK ENCLOSED GROUND FLARE			
C103	LFG PROCESSING PLANT THERMAL OXIDIZER (2,010 CFM)			
C103-1	LFG PROCESSING PLANT (4,000 SCFM) (AS CONTROL FOR LANDFILL)			
C108	WATER SPRAYS			
FML03	ULTRA-LOW-SULFUR DIESEL			
S031	WWTP STEAM BOILER STACK			
S032	BOILER STACKS FOR PROCESS HEAT IN WWTP & HIGH BTU PLANT			
S101	6000 CFM JOHN ZINC ENCLOSED GROUND FLARE STACK			
S103	LFG PROCESSING PLANT THERMAL OXIDIZER STACK			
S104	335 KW LFG ENGINE/GENERATOR			
S106	67 HP ENGINE STACK			

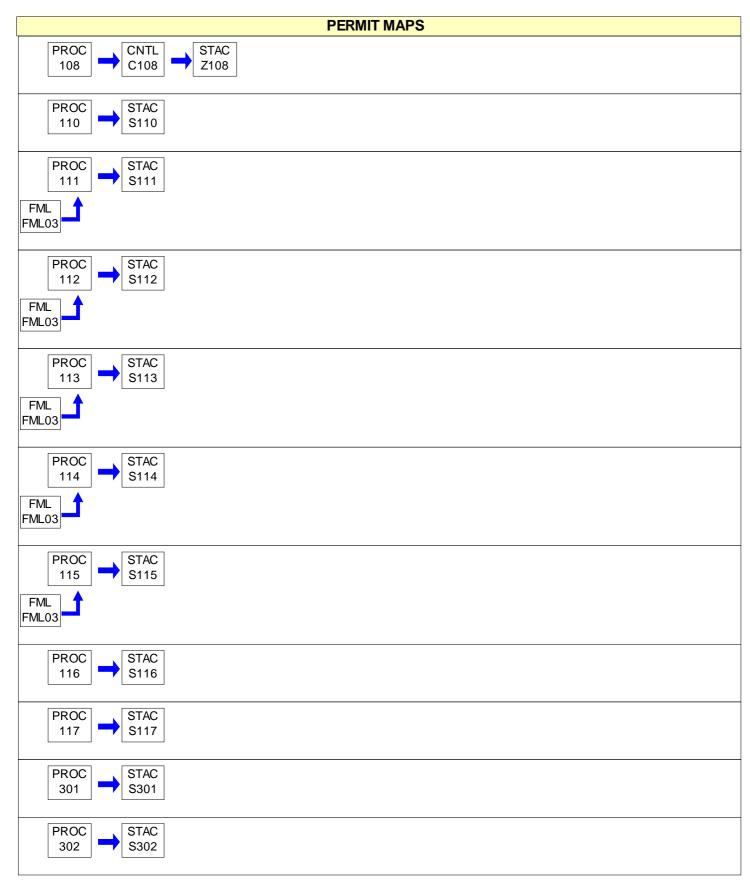


SECTION A. Site Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
S110	67 HP DIESEL ENGINE STACK		
S111	STACK, GRINDER DIESEL ENGINE, CATERPILLAR C13		
S112	STACK, GRINDER DIESEL ENGINE, CATERPILLAR C16		
S113	STACK, CRUSHER DIESEL ENGINE, CATERPILLAR C9		
S114	STACK, DIESEL TIPPER ENG. JOHN DEERE MODEL:JD6068HF285		
S115	DIESEL TIPPER ENG. JOHN DEERE MODEL:JD6068HF286		
S116	STACK, SOURCE 116, GENERATOR ENGINE, GE JENBACHER JGS420		
S117	STACK, SOURCE 117, GENERATOR ENGINE, GE JENBACHER JGS420		
S301	STACK FOR CAT D348 DIESEL FUELED EMERGENCY GENERATOR		
S302	STACK FOR CATERPILLAR D348 EMERGENCY GENERATOR #2		
Z101	FUGITIVES FROM LANDFILL		
Z107	PARTS WASHER FUGITIVE EMISSIONS		
Z108	NONMETALLIC MINERAL PROCESSING PLANT FUGITIVE EMISSIONS		









#001 [25 Pa. Code § 121.1]

Definitions

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

#002 [25 Pa. Code § 121.7]

Prohibition of Air Pollution

No person may permit air pollution as that term is defined in the act.

#003 [25 Pa. Code § 127.512(c)(4)]

Property Rights

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

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

Permit Expiration

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

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

Permit Renewal

- (a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.
- (b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.
- (c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).
- (d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]

Transfer of Ownership or Operational Control

- (a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:
 - (1) The Department determines that no other change in the permit is necessary;
- (2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,
 - (3) A compliance review form has been submitted to the Department and the permit transfer has been approved by



the Department.

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

#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.

#017 [25 Pa. Code § 127.512(b)]

Severability Clause

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

#018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]

Fee Payment

- (a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees). The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.
- (b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.
- (c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.



- (d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).
- (e) The permittee shall pay an annual operating permit maintenance fee according to the following fee schedule established in 25 Pa. Code § 127.704(d) on or before December 31 of each year for the next calendar year.
- (1) Eight thousand dollars (\$8,000) for calendar years 2021—2025.
- (2) Ten thousand dollars (\$10,000) for calendar years 2026—2030.
- (3) Twelve thousand five hundred dollars (\$12,500) for the calendar years beginning with 2031.

#019 [25 Pa. Code §§ 127.14(b) & 127.449]

Authorization for De Minimis Emission Increases

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



- (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.



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) No person may permit the emission into the outdoor atmosphere of fugitive air contaminant from a source other than the following:
 - (1) Construction or demolition of buildings or structures.
 - (2) Grading, paving and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.
 - (4) Clearing of land.
 - (5) Stockpiling of materials.
 - (6) Open burning operations.
 - (7) [Not applicable]
 - (8) [Not applicable]
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.
- (b) An application form for requesting a determination under either subsection (a)(9) or 129.15(c) is available from the Department. In reviewing these applications, the Department may require the applicant to supply information including, but not limited to, a description of proposed control measures, characteristics of emissions, quantity of emissions, and ambient air quality data and analysis showing the impact of the source on ambient air quality. The applicant shall be required to demonstrate that the requirements of subsections (a)(9) and (c) and 123.2 (relating to fugitive particulate matter) or of the requirements of 129.15(c) have been satisfied. Upon such demonstration, the Department will issue a determination, in writing, either as an operating permit condition, for those sources subject to permit requirements under the act, or as an order containing appropriate conditions and limitations.
- (c) [Paragraph (c) of the regulation is printed under WORK PRACTICE REQUIREMENTS in this section of permit.]
- (d) [Paragraph (d) of the regulation is not applicable to this facility.]

002 [25 Pa. Code §123.2]

Fugitive particulate matter

A person may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code § 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions) [Condition #001 above] if such emissions are visible at the point the emissions pass outside the person's property.

003 [25 Pa. Code §123.31]

Limitations

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



004 [25 Pa. Code §123.41]

Limitations

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

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

005 [25 Pa. Code §123.42]

Exceptions

The limitations of 25 Pa. Code § 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (3) When the emission results from sources specified in 25 Pa. Code § 123.1(a)(1) -- (9) (relating to prohibition of certain fugitive emissions). [123.1(a)(1) -- (9) are printed under Emission Restrictions of Condition #001 in this section of permit.]
 - (4) [Not applicable]

006 [25 Pa. Code §129.14]

Open burning operations

- (a) Air basins. [Paragraph (a) of the regulation is not applicable to this facility.]
- (b) Outside of air basins. No person may permit the open burning of material in an area outside of air basins in a manner that:
- (1) The emissions are visible, at any time, at the point such emissions pass outside the property of the person on whose land the open burning is being conducted.
- (2) Malodorous air contaminants from the open burning are detectable outside the property of the person on whose land the open burning is being conducted.
 - (3) The emissions interfere with the reasonable enjoyment of life or property.
 - (4) The emissions cause damage to vegetation or property.
 - (5) The emissions are or may be deleterious to human or animal health.
- (c) Exceptions: The requirements of subsections (a) and (b) do not apply where the open burning operations result from:
- (1) A fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer.
 - (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
 - (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
 - (4) [Not applicable]
 - (5) [Not applicable]



- (6) A fire set solely for recreational or ceremonial purposes.
- (7) A fire set solely for cooking food.
- (d) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:
 - (1) As used in this subsection the following terms shall have the following meanings:

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

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

- (2) [Not applicable]
- (3) Subsection (b) notwithstanding clearing and grubbing wastes may be burned outside of an air basin, subject to the following limitations:
- (i) Upon receipt of a complaint or determination by the Department that an air pollution problem exists, the Department may order that the open burning cease or comply with subsection (b) of this section.
- (ii) Authorization for open burning under this paragraph does not apply to clearing and grubbing wastes transported from an air basin for disposal outside of an air basin.
- (4) During an air pollution episode, open burning is limited by Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

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

II. TESTING REQUIREMENTS.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

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

[From Plan Approval 10-284F, Section C, Condition #006.]

III. MONITORING REQUIREMENTS.

008 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions may be measured using either of the following:

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

009 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

(a) The permittee shall conduct daily monitoring of the facility property to observe for the presence of fugitive emissions and visible emissions being emitted into the outdoor atmosphere.



(b) All detected fugitive emissions and visible emissions shall be reported to the Site Supervisor.

IV. RECORDKEEPING REQUIREMENTS.

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) A detailed record describing the time, location, type and amount of roadway surface treatment shall be maintained at the landfill site for at least five years.
- (b) At a minimum, the record shall include the following:
 - (1) For paved roadways and parking lot areas:
- (i) Log of action performed to prevent particulate matter from becoming airborne as specified in 25 Pa. Code §123.1(c). [§123.1 is printed under Work Practice Requirements in this section of the permit.] This may include, but is not limited to, the following:
 - (a) Log of engine run time or odometer reading for a vacuum sweeper.
 - (b) Log of time and location of any maintenance.
 - (c) Identification, time and location of any maintenance, repairs, patching or repaving of roads.
 - (2) For unpaved roads and shoulders of paved roads:
- (i) Log of action performed to prevent particulate matter from becoming airborne as specified in 25 Pa. Code §123.1(c). [§123.1 is printed under Work Practice Requirements in this section of the permit.] This may include, but is not limited to, the following:
- (a) Log of meter reading of spray-bar and/or pump and odometer reading of trucks used to apply dust suppressants and the identification of such dust suppressants.
 - (b) Log of the dilution ratios of the dust suppressants and diluents used if chemical suppressants are used.
 - (c) Purchase records of the chemical suppressants, if used.
- (c) Reports of the above records shall be submitted to the Department upon request.

[From Plan Approval 10-284C, Condition 9(i), as modified at 2021 Title V operating permit renewal.]

011 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

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

012 [25 Pa. Code §135.5]

Recordkeeping

Source owners or operators shall maintain and make available upon request by the Department records including computerized records that may be necessary to comply with 25 PA Code 135.3 and 135.21 (relating to reporting; and emission statements). These may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed informed by indirect means.

V. REPORTING REQUIREMENTS.

013 [25 Pa. Code §121.1 A - L]

Definitions.

[Selected definitions from 25 Pa. Code §121.1 are printed below. Refer to regulation for remaining definitions.]



Deviation -- An activity that occurred at a source owned or operated in this Commonwealth by the applicant, permittee or related party within the 5 years prior to the date of submission of the compliance review form but not prior to July 9, 1992, that has not been formally documented by the Department or another authorized enforcement or regulatory agency in this Commonwealth which exceeds applicable emission limits or otherwise did not conform to the act, regulations promulgated thereunder, plan approvals, permits or orders of the Department. The identification of a deviation on a compliance review form does not constitute a waiver of a defense to liability under the law for the activity disclosed. The term includes, but is not limited to, the following:

- (i) Unauthorized, accidental or emergency releases of air pollutants.
- (ii) Malfunctions of equipment, the maintenance of which is necessary to meet plan approval requirements or emission limitations.
- (iii) Instances of exceeding permit terms or conditions or regulatory requirements found during routine plant maintenance, whether or not the Department is aware of the situation.
- (iv) Instances of exceeding permit terms or conditions or regulatory requirements recorded by continuous monitoring equipment.
- (v) Other departures from the requirements of the act, regulations adopted under the act, terms or conditions of operating permits or plan approvals and Department orders by the applicant or a related party.

014 [25 Pa. Code §127.11a]

Reactivation of sources.

- (a) Except as provided by § 127.215 (relating to reactivation), a source which has been out of operation or production for at least 1 year but less than or equal to 5 years may be reactivated and will not be considered a new source if the following conditions are satisfied:
- (1) The owner or operator shall, within 1 year of the deactivation submit to the Department and implement a maintenance plan which includes the measures to be taken, including maintenance, upkeep, repair or rehabilitation procedures, which will enable the source to be reactivated in accordance with the terms of the permit issued to the source.
- (2) The owner or operator shall submit a reactivation plan to the Department for approval at least 60 days prior to the proposed date of reactivation. The reactivation plan shall include sufficient measures to ensure that the source will be reactivated in compliance with the permit requirements. The permittee may submit a reactivation plan to the Department at any time during the term of its operating permit. The reactivation plan may also be submitted to and reviewed by the Department as part of the plan approval or permit application or renewal process.
- (3) The owner or operator of the source shall submit a notice to the Department within 1 year of deactivation requesting preservation of emissions in the inventory and indicating the intent to reactivate the source.
- (4) The owner or operator of the source shall comply with the terms and conditions of the maintenance plan while the source is deactivated, and shall comply with the terms of the reactivation plan and operating permit upon reactivation.
- (5) The owner or operator of the source with an approved reactivation plan and operating permit shall notify the Department in writing at least 30 days prior to reactivation of the source.
- (b) A source which has been out of operation or production for more than 5 years but less than 10 years may be reactivated and will not be considered a new source if the following conditions are satisfied:
 - (1) The owner or operator of the source complies with the requirements of subsection (a).
- (2) The owner or operator of the source obtains a plan approval and operating permit which requires that the emission of air contaminants from the source will be controlled to the maximum extent, consistent with the best available technology as determined by the Department as of the date of reactivation.



- (c) A source which has been out of operation for 10 or more years shall meet the requirements of this chapter applicable to a new source.
- (d) [Not applicable since applicability date has already passed.]
- (e) A source located in a nonattainment area that would emit an air contaminant related to the nonattainment designation or a source that would emit NOx or VOC emissions may not be reactivated unless the proposed emissions are included in the SIP emission inventory or until the proposed emissions of these contaminants from the source are submitted to and approved by the EPA as an amendment of the SIP. The Department may refuse to allow reactivation of such a source for cause.
- (f) The source shall have an operating permit prior to reactivation.

015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The 6-month monitoring and deviation report, required under Section B Condition #025, shall be submitted to the Department within 1 month of the end of the reporting period.

The 6-month monitoring/deviation report shall cover the following periods unless otherwise approved by the Department:

- (1) January 1 through June 30
- (2) July 1 through December 31
- (b) In accordance with 25 Pa. Code §127.513 and with Section B Condition #026 of this permit, the annual compliance certification report shall be submitted to both the Department and EPA within 1 month of the end of the reporting period.

The annual compliance certification shall cover the following period unless otherwise approved by the Department.

- January 1 through December 31.
- (c) All submittals to the Department required by this permit shall be submitted either by mailing or by uploading to the DEP website at the following addresses.
 - (1) The mailing address is:

Bureau of Air Quality
Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335
814-332-6940 (phone)
814-332-6121 (fax)

- (2) Electronic submissions to the Northwest Regional Office Air Quality program may be submitted by use of the OnBase-DEP Upload Form at this address https://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx in lieu of sending paper copies to the Department. If using the tool to submit non permit related information, please use the "Other" as the both the form name and document type. Guidance for the new online permit application tool can be found at this web address https://files.dep.state.pa.us/DataAndTools/ApplicationFormUpload/OnBase_form_May132020.pdf
- (d) The addresses for EPA submittals are as follows.
 - (1) The mailing address is:

Section Chief

U.S. Environmental Protection Agency Region III Enforcement and Compliance Assurance Division

Air Section (3ED21)

1650 Arch Street



Philadelphia, PA 19103-2029

(2) Electronic compliance certifications may be sent to the EPA at the following email address.

R3_APD_Permits@epa.gov

Include the following in the email subject line:

• name of facility, state, and Title V operating permit number.

016 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee can modify the mixture of pollutants regulated under Section 112 of the Clean Air Act (42 U.S.C.A. 7412) which are VOCs or PM10 so long as the emission limitations of this permit are not violated. The permittee shall keep a log which identifies the mixture of pollutants regulated under section 112 and report the changes in the mixture of pollutants regulated under section 112 with the next report required to be provided to the Department.

017 [25 Pa. Code §135.21]

Emission statements

- (a) Except as provided in subsection (d), this section applies to stationary sources or facilities:
- (1) Located in an area designated by the Clean Air Act as a marginal, moderate, serious, severe or extreme ozone nonattainment area and which emit oxides of nitrogen or VOC.
- (2) Not located in an area described in paragraph (1) and included in the Northeast Ozone Transport Region which emit or have the potential to emit 100 tons or more of oxides of nitrogen or 50 tons or more of VOC per year.
- (b) The owner or operator of each stationary source emitting oxides of nitrogen or VOCs shall provide the Department with a statement, in a form as the Department may prescribe, for classes or categories of sources, showing the actual emissions of oxides of nitrogen and VOCs from that source for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based. The statement shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate.
- (c) Annual emission statements are due by March 1 for the preceding calendar year beginning with March 1, 1993, for calendar year 1992 and shall provide data consistent with requirements and guidance developed by the EPA. The guidance document is available from: United States Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The Department may require more frequent submittals if the Department determines that one or more of the following applies:
 - (1) A more frequent submission is required by the EPA.
 - (2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the act.
- (d) [Paragraph (d) of the regulation is not applicable to this facility.]

VI. WORK PRACTICE REQUIREMENTS.

018 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) (b) [Paragraphs (a) and (b) of 25 Pa. Code § 123.1 are printed under Emission Restrictions in this section of permit.]
- (c) A person responsible for any source specified in 25 Pa. Code § (a)(1) -- (7) or (9) [Condition 001 above in this section of the permit] shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:
- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.



- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
 - (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.
- (d) [Paragraph (d) of the regulation is not applicable to this facility.]

019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Fugitive Emission Criteria: This criterion specifies the reasonable actions that are necessary for the prevention of fugitive dust emissions from the operation of landfill in accordance with these requirements. The Fugitive Emission Control Criteria are as follows:

- (a) The landfill access roadways from the public highways to the landfill shall be paved a minimum of 500 feet. The access roadways shall be maintained to prevent particulate matter from becoming airborne as specified in 25 Pa. Code §123.1(c). [§123.1 is printed under Work Practice Requirements in this section of the permit.]
- (b) The unpaved portions of the access roadways shall have a crown so that water runs off and does not pool. The access roadways shall be maintained to prevent particulate matter from becoming airborne as specified in 25 Pa. Code §123.1(c). [§123.1 is printed under Work Practice Requirements in this section of the permit.]
- (c) All reasonable measure shall be taken to suppress fugitive dust emissions on access roadways or public highways for a distance of 500 feet in both directions from the landfill entrance(s) and exit(s), caused by landfill operations. When applicable, reasonable accommodations shall be made with governmental entity with primary responsibility for a public highway maintenance and care to ensure that any fugitive emissions in the area of public highway denoted above, caused by landfill operations, are appropriately suppressed.
 - (d) No waste oil shall be used as dust suppressant for the unpaved surface.
- (e) Earth or other material deposited by trucking or other means shall be promptly removed from the paved portions of the access roadways.
- (f) Upon leaving the landfill, the undercarriage, wheels and chassis of the vehicles used to transport wastes and earth shall be washed, as necessary, to prevent earthen carryout onto roadways.
 - (g) All waste hauling trucks entering the landfill shall be covered.
- (h) Speed limits of not more than 25 mph (miles per hour) shall be observed on all paved access roadways and not more than 15 mph on all unpaved areas. Speed limit signs shall be posted consistent with the requirements of PennDOT (overall dimension 30"x24", "SPEED LIMIT" in 4 inch letters and 10 inch numerals). The permittee may elect to post speed limit signs which are more restrictive than 25 mph for pave roadways and more restrictive than 15 mph for unpaved roadways.

[From Plan Approval 10-284C, Condition 9(h) as modified to change speed limits at the Feb. 18, 2010, Title V operating permit renewal.]

VII. ADDITIONAL REQUIREMENTS.

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

VIII. COMPLIANCE CERTIFICATION.

The permittee shall submit within thirty days of 12/31/2015 a certificate of compliance with all permit terms and conditions



set forth in this Title V permit as required under condition #24 of section B of this permit, and annually thereafter.

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

*** Permit Shield In Effect ***



Source ID: 031 Source Name: WASTEWATER TREATMENT PLANT STEAM BOILER

Source Capacity/Throughput: 3.800 MMBTU/HR

3.000 MCF/HR Natural Gas

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

A person may not permit the emission into the outdoor atmosphere of particulate matter in excess of the rate of 0.4 pound per million Btu of heat input.

002 [25 Pa. Code §123.22]

Combustion units

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

Fuel Restriction(s).

003 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The source shall burn only natural gas or landfill gas that meets the requirements of natural gas, in so far as the sulfur and nitrogen content are comparable, to ensure compliance with Conditions #001 & #002, above.

II. TESTING REQUIREMENTS.

004 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall test using procedures in 25 PA Code 139, quarterly, the landfill gas for sulfur content and nitrogen content to ensure it is comparable to natural gas.

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.

005 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The permittee shall maintain records of the quarterly landfill gas testing.

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.

006 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The source shall be operated and maintained in accordance with the manufacturer's specifications and in accordance with





good air pollution control practices.	

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***



Source ID: 032 Source Name: PROCESS HEAT, 2 BOILERS AT HIGH BTU PLANT, 1 BOILER AT WWTP

Source Capacity/Throughput: 1.190 MMBTU/HR

1.170 MCF/HR Natural Gas

CU 032 STAC S032

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.

002 [25 Pa. Code §123.22]

Combustion units

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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.

003 [25 Pa. Code §127.512]

Operating permit terms and conditions.

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

VII. ADDITIONAL REQUIREMENTS.

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



*** Permit Shield in Effect. ***



Source ID: 101 Source Name: MUNICIPAL WASTE LANDFILL

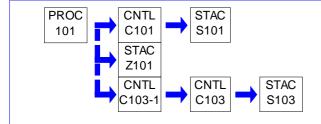
Source Capacity/Throughput: 137.000 MCF/HR LFG

67.000 Tons/HR WASTE

Conditions for this source occur in the following groups: 01 - LANDFILL STATE CONDITIONS

02 - LANDFILL 60-XXX NSPS REQUIREMENTS

03 - LANDFILL 63-AAAA NESHAP REQMTS



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.

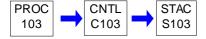
No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***



Source ID: 103 Source Name: LFG PROCESSING PLANT (4,000 SCFM) (AKA HIGH BTU PLANT)

Source Capacity/Throughput: 240.000 MCF/HR LFG



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) This source is subject to 25 Pa Code Sections 123.1, 123.31, and 123.41 for fugitive, odor, and visible emissions, respectively.
- (b) No person may permit the emission into the outdoor atmosphere of filterable particulate matter in a manner that the concentration of filterable particulate matter (FPM) in the effluent gas exceeds 0.02 grain per dry standard cubic foot.
- (c) The thermal oxidizer (C103) shall be designed and operated to either reduce NMOC by 98 weight-percent or to reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the source using the test methods specified in §60.754(d).

[This initial testing was completed on March 29, 2012, and the Department Source Test Review Memo is on file with plan approval 10-284E.]

[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 001]

II. TESTING REQUIREMENTS.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) A stack test for VOC (NMOC) shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection. The stack test shall be performed while the aforementioned source is operating at the maximum or normal rated capacity as stated on the application. The stack test shall be conducted at the outlet of the normal control device (C103). [The initial stack test required by plan approvals 10-284D & 10-284E was completed March 29, 2012. Periodic testing is required in paragraph (b) below.]
- (1) [25 Pa. Code § 139.53(a)(3)] At least 60 calendar days prior to commencing an emissions testing program, a test protocol shall be submitted to the Department's Division of Source Testing and Monitoring and two copies to the appropriate Regional Office Department for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (2) [25 Pa. Code § 139.53(a)(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.
- (3) [25 Pa. Code § 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.
- (4) [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 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

- (5) [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 non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
- (i) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
 - (ii) Permit number(s) and condition(s) which are the basis for the evaluation.
 - (iii) Summary of results with respect to each applicable permit condition.
 - (iv) Statement of compliance or non-compliance with each applicable permit condition.
- (6) [25 Pa. Code § 139.3] All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (7) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (8) [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 can not be accomplished, one copy of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachael Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks. In a like manner, two copies of the submittal shall be sent to the appropriate Regional Office.
- (9) 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.
 - (10) Actions Related to Noncompliance Demonstrated by a Stack Test:
- (i) If the results of a stack test, performed as required by this approval, exceed the level specified in any condition of this approval, the Permitee shall take appropriate corrective actions. Within 30 days of the Permitee receiving the stack test results, a written description of the corrective actions shall be submitted to the Department. The Permitee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. The Department shall notify the Permitee within 30 days, if the corrective actions taken are deficient. Within 30 days of receipt of the notice of deficiency, the Permitee shall submit a description of additional corrective actions to the Department. The Department reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (ii) If the results of the required stack test exceed any limit defined in this plan approval, the test was not performed in accordance with the stack test protocol or the source and/or air cleaning device was not operated in accordance with the plan approval, then another stack test shall be performed to determine compliance. Within 120 days of the Permitee receiving the original stack test results, a retest shall be performed. The Department may extend the retesting deadline if the Permitee demonstrates, to the Department's satisfaction, that retesting within 120 days is not practicable. Failure of the second test to demonstrate compliance with the limits in the plan approval, not performing the test in accordance with the stack test protocol or not operating the source and/or air cleaning device in accordance with the plan approval may be grounds for immediate revocation of the plan approval to operate the affected source.
- (b) Within 12 to 18 months prior to the expiration of the facility operating permit, a stack test for VOC (NMOC) shall be performed in accordance with the provisions in part (a). The stack test shall be performed while the aforementioned source



is operating at the maximum or normal rated capacity as stated on the application. The stack test shall be conducted at the outlet of the normal control device (C103).

[Periodic testing was conducted on August 13, 2019, and the report was received by the Department on September 25, 2019, and was forwarded to the PA DEP Division of Source Testing for review.]

[For the facility operating permit expiring on June 30, 2026, the stack test shall be conducted between June 30, 2025, and December 31, 2025.]

[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 002]

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following are VOC CAM requirements.

The permittee shall continuously monitor the Thermal Oxidizer combustion zone temperature. The temperature monitoring shall be performed using a Department approved method.

[Additional authority for this permit condition is also derived from 40 CFR §§ 64.3 and 64.6]

IV. RECORDKEEPING REQUIREMENTS.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The permittee shall maintain a record of all preventative maintenance inspections of the source and control device. These records shall, at a minimum, contain the dates of the inspections, any problems or defects, the actions taken to correct the problem or defects, and any routine maintenance performed.
- (b) The permittee shall maintain a record of the following from the operational inspections:
 - 1. Thermal Oxidizer combustion zone temperature continuously defined as at least once every 15 minutes
- (c) The following are VOC CAM requirements. [Additional authority for this permit condition is also derived from 40 CFR § 64.9.]
- (1) The permittee shall record the following information (This may be done with strip charts recorders, data acquisition systems, or manual log entries.):
 - (i) Thermal Oxidizer combustion zone temperature continuously defined as at least once every 15 minutes
- (2) The permittee shall record all excursions and corrective actions taken in response to an excursion and the time elapsed until the corrective actions have been taken.

[Definition from 40 CFR Part 64 -- Compliance Assurance Monitoring: Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.]

- (3) The permittee shall maintain records of all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable). The permittee shall also record the dates, times and durations, probable causes and corrective actions taken for the incidents.
 - (4) The permittee shall record all inspections, repair, and maintenance performed on the monitoring equipment.
 - (5) All records shall be kept for a period of 5 years and shall be made available to the Department upon request.





[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 004]

V. REPORTING REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following are VOC CAM requirements.

(1) The permittee shall report all excursions and corrective actions taken, the dates, times, durations and probable causes, every 6 months. [Additional authority for this permit condition is also derived from 40 CFR § 64.9 & § 70.6(a)(3)(iii)(A)]

[Definition from 40 CFR Part 64 -- Compliance Assurance Monitoring: Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.]

(2) The permittee shall report all monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable), their dates, times and durations, probable causes and corrective actions taken, every 6 months. [Additional authority for this permit condition is also derived from 40 CFR § 64.9]

[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 005]

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) (b) [Requirements from Plan Approval 10-284E, Section D, Source 103, Condition # 008 paragraphs (a) and (b) are one-time requirements which have already been met.]
- (c) The following are VOC CAM QIP requirements. [Additional authority for this permit condition is also derived from 40 CFR § 64.8]
- (1) The permittee shall develop and implement a Quality Improvement Plan (QIP) as expeditiously as practicable if any of the following occur:
 - (i) Six (6) excursions occur in a 6 month reporting period.

[Definition from 40 CFR Part 64 -- Compliance Assurance Monitoring: Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.]

- (ii) The Department determines after review of all reported information that the permittee has not responded in an acceptable manner to an excursion.
- (2) The QIP plan should be developed within 60 days and the permittee shall provide a copy of the QIP to the Department. Furthermore, the permittee shall notify the Department if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (3) The permittee shall record actions taken to implement a QIP during a reporting period and all related actions including, but not limited to inspections, repairs, and maintenance performed on the monitoring equipment.
- (4) In accordance with 40 CFR § 64.8, the QIP shall include procedures for evaluating the control performance problems. Based on the results of the evaluation procedures, the permittee shall modify the QIP and provide the Department with a copy, to include procedures for conducting more frequent, or improved, monitoring in conjunction with one or more of the following:



- (i) Improved preventive maintenance practices
- (ii) Process operation changes
- (iii) Appropriate improvements to the control methods
- (iv) Other steps appropriate to correct performance.
- (5) Following implementation of a QIP, the Department will require reasonable revisions to the QIP if the plan has failed to either:
 - (i) Address the cause of the control device performance problem.
- (ii) Provide adequate procedures for correcting control device performance problems in as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (6) Implementation of a QIP, shall not excuse the permittee from compliance with any existing emission limitation or standard or any existing monitoring, testing, reporting or recordkeeping requirements that may apply under any federal, state, or local laws or any other applicable requirements under the Clean Air Act.

[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 008]

VI. WORK PRACTICE REQUIREMENTS.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following conditions are associated with the start-up and shutdown of the thermal oxidizer (C103).

- (a) Initial ceramic media curing or bake-out process:
- (1) A portion of the raw LFG will be directed to the thermal oxidizer with the thermal oxidizer operating at a temperature of approximately 200 °F. The remainder of the raw LFG will be routed to the main flare.
- (2) A gradual ramp-up in temperature (~200° F per hour) will occur until the operating temperature of the thermal oxidizer reaches 1,800 °F. A total of approximately 24 hours will be required for this curing process.
- (b) Thermal Oxidizer start-up procedure in event of power failure or system operational failure:
- (1) Same as part (a) above except since the refractory material will hold heat for many hours this should allow for higher temperature restarts.
- (c) Raw LFG or natural gas will be used to start up the thermal oxidizer initially before the remainder of the LFG processing system comes online.
- (d) The main flare (C101) will be utilized during these isolated events until the thermal oxidizer reaches operating temperature at which point the main flare (C101) will be shut down.
- (e) No raw LFG will be diverted directly to the thermal oxidizer during normal operating conditions (at operating temperature) as all raw LFG will run through the entire LFG processing system.
- (f) In the event the LFG processing system needs to be shut down for maintenance or operational issues, a temperature ramp down process is required, at a rate of approximately 200 °F per hour (similar to the start-up rate) to allow the thermal oxidizer refractory media to gradually cool.

[From Plan Approval 10-284E, Section D, Source 103, Condition # 007, as modified at the 2021 operating permit renewal to clarify that natural gas may be used for the startup of the thermal oxidizer.]



008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The permittee shall perform a daily operational inspection of the source and control device for any day the source and control device is in operation.
- (b) The permittee shall install a thermocouple or equivalent to measure combustion zone temperature of the control device.
- (c) All gauges employed by the permittee to monitor the required control device (C103) operating parameters shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within plus or minus 2 percent (+/- 2%) of full scale reading.
- (d) Control device operating parameters, including combustion chamber temperature, shall be operated in a range defined by the manufacturer or in a range developed during compliant stack testing. The average combustion zone temperature during the stack test will be the minimum temperature required for the VOC CAM indicator range. The operating range shall be made part of the facility operating permit.

[The minimum temperature for C103, as determined by the upper chamber, shall be 1,642 °F on a 3-hr rolling block average. This minimum temperature was developed by the facility based on the lowest test temperature documented during the March 29, 2012, performance test in accordance with this plan approval condition.] [A new minimum upper chamber operating temperature for C103 of 1,603 °F, as determined in the August 13, 2019, stack test will be allowed upon acceptance of the 8/13/2019 stack test results by the Department Division of Source Testing.]

- (e) The permittee shall operate the control device at all times that the source is in operation.
- (f) The permittee shall maintain and operate the source and control device in accordance with the manufacturer's specifications and in accordance with good air pollution control practices.
- (g) The following are VOC CAM requirements. [Additional authority for this permit condition is also derived from 40 CFR §§ 64.3 and 64.6.]
- (1) The permittee shall adhere to the approved temperature range for the oxidizer so that operation within the range shall provide reasonable assurance of compliance. A departure from the specified indicator range (minimum combustion zone temperature) over a specified averaging period shall be defined as an excursion.
- (i) The approved operating temperature for the thermal Oxidizer combustion zone temperature is not less than 1,642 °F as measured in the upper chamber. [This range was approved at the March 15, 2013, Department inspection for plan approval 10-284E and is based upon the minimum operating temperature of the upper chamber during the March 29, 2012, stack testing.] [The approved upper chamber operating temperature for C103 will be 1,603 °F, upon acceptance of the 8/13/2019 stack test results by the Department Division of Source Testing.]
- (2) The permittee shall utilize approved QA/QC practices that are adequate to ensure continuing validity of data and proper performance of the devices.
- (i) The permittee shall install detectors or sensors at a Department approved location for obtaining data that is representative of the monitored indicator.
- (ii) The permittee shall develop verification procedures to confirm the operational status of the monitoring devices. (Operational status pertains to the accuracy of the measured values. The permittee may compare the data with any Department approved standardized data at a specific time interval.)
- (iii) For QA/QC purposes, the permittee shall calibrate and check the accuracy of the monitoring equipment, according to the manufacturer's recommended procedures.
 - (3) The permittee shall maintain all monitoring equipment and stock spare parts as necessary for routine onsite repairs.



- (4) The permittee shall ensure that at least 90 percent of the approved monitoring data has been properly and accurately collected.
- (5) [This paragraph was a one-time condition with a due date for implementation of the monitoring plan; it was already met with plan approval 10-284E].

[From Plan Approval 10-284D and Plan Approval 10-284E, Section D, Source 103, Condition # 006.]

VII. ADDITIONAL REQUIREMENTS.

009 [40 CFR Part 64 Compliance Assurance Monitoring for Major Stationary Sources §40 CFR 64.1] Sections of PART 64

Definitions

[Selected definitions pertaining to 40 CFR Part 64 -- Compliance Assurance Monitoring are printed below. Refer to regulation for remaining definitions.]

Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.

Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.

Monitoring means any form of collecting data on a routine basis to determine or otherwise assess compliance with emission limitations or standards. Recordkeeping may be considered monitoring where such records are used to determine or assess compliance with an emission limitation or standard (such as records of raw material content and usage, or records documenting compliance with work practice requirements). The conduct of compliance method tests, such as the procedures in appendix A to part 60 of this chapter, on a routine periodic basis may be considered monitoring (or as a supplement to other monitoring), provided that requirements to conduct such tests on a one-time basis or at such times as a regulatory authority may require on a non-regular basis are not considered monitoring requirements for purposes of this paragraph. Monitoring may include one or more than one of the following data collection techniques, where appropriate for a particular circumstance:

- (1) Continuous emission or opacity monitoring systems.
- (2) Continuous process, capture system, control device or other relevant parameter monitoring systems or procedures, including a predictive emission monitoring system.
 - (3) Emission estimation and calculation procedures (e.g., mass balance or stoichiometric calculations).
 - (4) Maintenance and analysis of records of fuel or raw materials usage.
 - (5) Recording results of a program or protocol to conduct specific operation and maintenance procedures.
- (6) Verification of emissions, process parameters, capture system parameters, or control device parameters using portable or in situ measurement devices.
 - (7) Visible emission observations.
- (8) Any other form of measuring, recording, or verifying on a routine basis emissions, process parameters, capture system parameters, control device parameters or other factors relevant to assessing compliance with emission limitations or standards.

[Source: 62 FR 54940, Oct. 22, 1997]



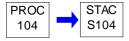
*** Permit Shield in Effect. ***



Source ID: 104 Source Name: 335 KW LANDFILL GAS ENGINE/GENERATOR

Source Capacity/Throughput: 1.000 MCF/HR LANDFILL GAS

Conditions for this source occur in the following groups: 06 - EXEMPT ENGINES



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).

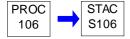
*** Permit Shield in Effect. ***



Source ID: 106 Source Name: 67 HP DUETZ DIESEL ENGINE (ORIG EXTEC 5000S SCREEN PLANT)

Source Capacity/Throughput: 1.000 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups: 06 - EXEMPT ENGINES



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.

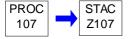
No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***



Source ID: 107 Source Name: PARTS WASHER

Source Capacity/Throughput: 1.000 Gal/HR ZEP DYNA 143 SOLVENT



I. RESTRICTIONS.

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

II. TESTING REQUIREMENTS.

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

III. MONITORING REQUIREMENTS.

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

IV. RECORDKEEPING REQUIREMENTS.

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

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §129.63]

Degreasing operations

- (a) Cold cleaning machines. Except for those subject to the Federal National emissions standards for hazardous air pollutants (NESHAP) for halogenated solvent cleaners under 40 CFR Part 63 (relating to National emission standards for hazardous air pollutants for source categories), this subsection applies to cold cleaning machines that use 2 gallons or more of solvents containing greater than 5% VOC content by weight for the cleaning of metal parts.
 - (1) Immersion cold cleaning machines shall have a freeboard ratio of 0.50 or greater.
 - (2) Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:
- (i) Have a permanent, conspicuous label summarizing the operating requirements in paragraph (3). In addition, the label shall include the following discretionary good operating practices:
- (A) Cleaned parts should be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts should be positioned so that solvent drains directly back to the cold cleaning machine.
- (B) When a pump-agitated solvent bath is used, the agitator should be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned.



- (C) Work area fans should be located and positioned so that they do not blow across the opening of the degreaser unit.
- (ii) Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than 6 inches shall constitute an acceptable cover.
 - (3) Cold cleaning machines shall be operated in accordance with the following procedures:
- (i) Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.
- (ii) Flushing of parts using a flexible hose or other flushing device shall be performed only within the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.
- (iii) Sponges, fabric, wood, leather, paper products and other absorbent materials may not be cleaned in the cold cleaning machine.
 - (iv) Air agitated solvent baths may not be used.
 - (v) Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately.
- (4) After December 22, 2002, a person may not use, sell or offer for sale for use in a cold cleaning machine any solvent with a vapor pressure of 1.0 millimeter of mercury (mm Hg) or greater and containing greater than 5% VOC by weight, measured at 20°C (68°F) containing VOCs.
- (5) On and after December 22, 2002, a person who sells or offers for sale any solvent containing VOCs for use in a cold cleaning machine shall provide, to the purchaser, the following written information:
 - (i) The name and address of the solvent supplier.
 - (ii) The type of solvent including the product or vendor identification number.
 - (iii) The vapor pressure of the solvent measured in mm hg at 20°C (68°F).
- (6) A person who operates a cold cleaning machine shall maintain for at least 2 years and shall provide to the Department, on request, the information specified in paragraph (5). An invoice, bill of sale, certificate that corresponds to a number of sales, Material Safety Data Sheet (MSDS), or other appropriate documentation acceptable to the Department may be used to comply with this section.
 - (7) Paragraph (4) does not apply:
 - (i) [Not applicable.]
- (ii) If the owner or operator of the cold cleaning machine demonstrates, and the Department approves in writing, that compliance with paragraph (4) will result in unsafe operating conditions.
 - (iii) To immersion cold cleaning machines with a freeboard ratio equal to or greater than 0.75.
- (b) (e) [25 Pa. Code 129.63(b) (d) are not applicable to this parts washer.]

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. ***



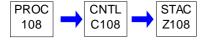
Source ID: 108 Source Name: PORTABLE NONMETALLIC MINERAL PROCESSING PLANT

Source Capacity/Throughput: 175.000 Tons/HR STONE

350.000 Tons/HR STONE

Conditions for this source occur in the following groups: 04 - GP-3 CRUSHING & SCREENING

05 - 60-OOO CRUSHING & SCREENING



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).

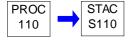
*** Permit Shield in Effect. ***



Source ID: 110 Source Name: 67 HP DUETZ DIESEL ENGINE (2ND EXTEC 5000S PORTABLE SCREEN)

Source Capacity/Throughput: 1.000 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups: 06 - EXEMPT ENGINES



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. ***



Source ID: 111 Source Name: MORBARK GRINDER DIESEL ENGINE, CAT C13, 440 BHP S/N LGK00651

Source Capacity/Throughput: 22.700 Gal/HR ULTRA LOW SULFUR DIESEL FL

Conditions for this source occur in the following groups: 08 - PLAN APPROVAL 10-284G FOR ENGINES



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. ***



Source ID: 112 Source Name: VERMEER WOOD GRINDER DIESEL ENG. 630 HP CAT C16 S/N BFM01160

Source Capacity/Throughput: 30.910 Gal/HR ULTRA LOW SULFUR DIESEL FL

Conditions for this source occur in the following groups: 08 - PLAN APPROVAL 10-284G FOR ENGINES



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. ***



Source ID: 113 Source Name: ROCK CRUSHER DIESEL ENGINE, CAT C9, 350 BHP S/N MBD05626

Source Capacity/Throughput: 18.600 Gal/HR ULTRA LOW SULFUR DIESEL FL

Conditions for this source occur in the following groups: 08 - PLAN APPROVAL 10-284G FOR ENGINES



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. ***



Source ID: 114 Source Name: NEW DIESEL TIPPER #1 ENG. JOHN DEERE MODEL: JD6068HF285 180HP

Source Capacity/Throughput: 9.500 Gal/HR ULTRA LOW SULFUR DIESEL FL

Conditions for this source occur in the following groups: 08 - PLAN APPROVAL 10-284G FOR ENGINES



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. ***



Source ID: 115 Source Name: OLD DIESEL TIPPER #2 ENG. JOHN DEERE MODEL:JD6068HF286 180HP

Source Capacity/Throughput: 9.500 Gal/HR ULTRALOW SULFUR DIESEL

Conditions for this source occur in the following groups: 08 - PLAN APPROVAL 10-284G FOR ENGINES



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. ***



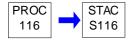
Source ID: 116 Source Name: GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP

Source Capacity/Throughput: 12.318 MMBTU/HR

1.000 MCF/HR LANDFILL GAS OR LFG / NATURA

Conditions for this source occur in the following groups: 09 - PLAN APPROVAL 10-284H FOR LFG RICE

10 - 60-JJJJ FOR NON-EMERG LFG FUEL ICE



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. ***



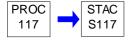
Source ID: 117 Source Name: GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP

Source Capacity/Throughput: 12.318 MMBTU/HR

1.000 MCF/HR LANDFILL GAS OR LFG / NATURA

Conditions for this source occur in the following groups: 09 - PLAN APPROVAL 10-284H FOR LFG RICE

10 - 60-JJJJ FOR NON-EMERG LFG FUEL ICE



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. ***



Source ID: 301 Source Name: 330 HP DETROIT DIESEL-FUELED EMERGENCY GENERATOR #1

Source Capacity/Throughput: 1.000 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups: 06 - EXEMPT ENGINES

07 - NESHAP 63-ZZZZ FOR EMERGENCY RICE



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. ***

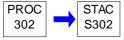


Source ID: 302 Source Name: 725 HP CATERPILLAR D348 DIESEL FUELED EMERGENCY GENERATOR #2

Source Capacity/Throughput: 1.000 Gal/HR Diesel Fuel

Conditions for this source occur in the following groups: 06 - EXEMPT ENGINES

07 - NESHAP 63-ZZZZ FOR EMERGENCY RICE



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. ***



Group Name: 01 - LANDFILL STATE CONDITIONS

Group Description: Plan Approval and State requirements for the municipal landfill.

Sources included in this group

ID	Name
101	MUNICIPAL WASTE LANDFILL

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.21]

General

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

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The flare shall be operated with no visible emissions except for periods not to exceed a total of 5 minutes during any two consecutive hours. The opacity of the emissions shall not be equal to or greater than 10% at any time.
- (b) The flare shall be designed and operated to either reduce nonmethane organic compounds (NMOC) by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis as hexane @ 3% oxygen.
- (c) The particulate matter (PM) emissions for the flare shall not exceed 0.02 grain/dscf

[From Plan Approval 10-284C, Condition 7(f - h). Compliance with the requirement (b) of this permit condition assures compliance with provisions in: 40 CFR 60.752(b)(2)(iii)(B). Also compliance with requirement (c) of this permit condition, assures compliance with 25 Pa. Code §123.13]

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) Petroleum contaminated soils may be used as daily landfill cover provided the VOC emissions from the contaminated soils does not exceed 2.7 tpy based on a consecutive 12-month period. The facility shall keep records of the petroleum-contaminated soil received at the landfill. The following information shall be recorded:
 - (i) Tons of contaminated soil received.
 - (ii) Contaminate type (PHC or BTEX)
 - (1) PHC is total petroleum hydrocarbons
 - (2) BTEX is benzene, toluene, ethyl benzene, and xylenes
- (iii) The maximum and average PHC and/or BTEX concentration (from Waste Management Form FC-1) expressed in mg/kg.
 - (iv) Potential VOC emissions shall be calculated as follows:
 - (1) PHC (expressed as mg/kg) x 10E-6 x tons of soil = tons of VOC
 - (2) BTEX (expressed as mg/kg) x 10E-6 x tons of soil = tons of VOC
 - (v) [Paragraph (a)(v) is printed under REPORTING REQUIREMENTS in this section of the permit.]
- (b) There shall be no passive venting of landfill gas to the atmosphere from any landfill gas collection well from Areas D and E.
- (c) There shall be no landfill gas leaks which result in concentrations of 500 ppmv or more measured as propane (or 1375



ppmv or more measured as methane) at a distance of 0.5 inches from any equipment. The landfill equipment subject to this requirement shall include the exposed portion of the gas wells, piping or any other connection or fittings along the landfill gas transfer paths of a landfill gas collection and disposal system. A log shall be kept at the facility indicating any leak that exceeds the above concentration and the corrective action taken for a period of five years and made readily available to Department personnel upon request.

[From Plan Approval 10-284C, Condition 9(a) - (b) & (d) as modified at the 2021 operating permit renewal to include Area E in paragraph (b).]

Control Device Efficiency Restriction(s).

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

C101 (Enclosed Ground Type Flare rated at 6,000 CFM) can be operated using 1 of 2 thermocouples as controlling thermocouple. The minimum operating temperature of each thermocouple, when that thermocouple is used as the controlling thermocouple, is

- (a) 1,500 °F for thermocouple B;
- (b) 1,500 °F for thermocouple C

for at least 0.3 second.

[From stack testing performed on March 31 and April 1, 2009.]

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.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The operating temperature of the flare shall be continuously measured and recorded. The recording charts shall be made available to the Department personnel upon request. These charts shall remain on file for a period of 5 years.

[From Plan Approval 10-284C, Condition 7(e)]

V. REPORTING REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a)(i) (iv) [Paragraphs (a)(i) through (a)(iv) are printed under EMISSION RESTRICTIONS in this section of the permit.]
- (v) Quarterly reports of the VOC emissions from petroleum contaminated soils used as daily landfill cover shall be prepared within 30 days of the end of the calendar quarter.
- (A) The reports shall submitted to the Department within 30-days of the end of any calendar quarter in which petroleum contaminated soils were used for landfill cover.
- (B) For any quarter in which petroleum contaminated soils were not used, the report shall be prepared and maintained for submission upon request.
 - (C) The reports shall include the following information to demonstrate compliance with the 2.7 tpy VOC emission



restriction for petroleum contaminated soils used for daily landfill cover.

- (i) Tons of contaminated soil received.
- (ii) Contaminate type (PHC or BTEX)
 - (1) PHC is total petroleum hydrocarbons
 - (2) BTEX is benzene, toluene, ethyl benzene, and xylenes
- (iii) The maximum and average PHC and/or BTEX concentration (from Waste Management Form FC-1) expressed in mg/kg.
 - (iv) Potential VOC emissions, calculated as follows:
 - (1) PHC (expressed as mg/kg) x 10E-6 x tons of soil = tons of VOC
 - (2) BTEX (expressed as mg/kg) x 10E-6 x tons of soil = tons of VOC
- (b) (c) [Paragraphs (b) and (c) are printed under EMISSION RESTRICTIONS in this section of the permit.]

[From Plan Approval 10-284C, Condition 9(a)(v) as modified in the 2021 issuance of the Title V operating permit renewal.]

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall calculate annually, the year-end gas generation rate in accordance with 40 CFR 60.755(a)(1)(ii) using known year-to-year solid waste acceptance rates. Also, the permittee shall estimate the next year-end gas generation rate using projected solid waste acceptance rates. The permittee shall compare both rates to the installed control devices maximum gas capacity (6000 CFM). The permittee shall submit a report containing the calculated year-end and the estimated next year-end gas generation rates by June 30 until such time as the plan approval for the next control device's has been submitted. This report may be submitted as part of the Solid Waste Annual Operating Report; however, a copy needs to go to Air Quality. Once the calculated year-end or the estimated next year-end gas generation rate exceeds 80% of the existing control device's maximum gas capacity from the report due June 30, the permittee shall submit a new plan approval application, within 60-days of the report above, for installation of an additional control device that will control LFG above the permitted capacity.

[From Plan Approval 10-284C, Condition 6]

VI. WORK PRACTICE REQUIREMENTS.

008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The flare shall be designed and operated in accordance with 40 CFR Section 60.18.
- (b) The flare must be an enclosed ground type, which is shrouded with no visible flame shooting from the flare.
- (c) The flare shall be equipped with a continuous pilot ignition source using an auxiliary fuel.
- (d) The flare shall be operated with a flame present at all times. The flare shall be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flameout occurs. During restart or start-up, there shall be sufficient flow of auxiliary fuel to the burners such that unburnt landfill gases are not emitted to the atmosphere.
- (e) The collection system shall be designed to minimize offsite migration of the subsurface gas. The gas collection system shall be designed: 1) to collect gas from the maximum possible area of the landfill; and, 2) to accommodate the maximum gas generation rate for the landfill.
- (f) Should the landfill gas flow rate from the disposal area exceed the maximum design capacity of the control devices, the company shall submit a plan approval application for the installation of an additional control device deemed acceptable by the Department.
- (g) The landfill gas (LFG) shall be controlled and monitored in accordance with 25 Pa. Code 273.292.
- (h) 25 Pa. Code Section 273.217 requires landfill operators to implement fugitive air contaminant control measures and otherwise prevent and control air pollution in accordance with the Air Pollution Control Act (35 P.S. §§4001-4014) Article III (relating to air resources) and 25 Pa. Code §273.218 (relating to nuisance minimization and control). Minimization and



control shall include the following:

- (i) Ensuring that operation of the facility will not cause or contribute to exceeding ambient air quality standards under 25 Pa. Code §131.3 (relating to ambient air quality standards)
 - (ii) Ensuring that no open burning occurs at the facility
 - (iii) Minimizing the generation of fugitive dust emissions from the facility.

[From Plan Approval 10-284C, Conditions 7(a) - (d), 9(c), (9)(e), (9)(f), & (9)(g)]

009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

In accordance with 40 CFR § 60.753(c) of Subpart WWW, alternative compliance requirements are allowed for specific categories of gas extraction wells as noted below:

Alternative 1: Wells in uncapped areas and leachate collection piping used for gas extraction may be operated at an oxygen level as high as 15 percent (volumetric basis), since the majority of the air intrusion occurs directly from the ground surface and not through the waste mass. Documentation of extraction point readings shall be performed as required to insure that the higher operating value does not cause an adverse reaction or combustion within the waste mass, and that degradation of the anaerobic decomposition process is not occurring. In the event that monitoring data for an Alternative 1 well indicates temperatures above 55°C (131°F), the well will be shut down. If the temperature does not subside to an acceptable level within 5 days, carbon monoxide monitoring (to ensure a carbon monoxide level below 100 ppmv) will be conducted to verify that combustion within the waste mass is not occurring.

Alternative 2: A well may be placed on an inactive list if it exhibits a methane quality that is consistently below 40 percent by volume and an oxygen level that is consistently above 5 percent while the throttle is either closed or slightly open with a negative pressure applied to the well of less than one-inch of water column. During the period of inactivity and while on the inactive list, the well will be exempt from oxygen concentration and negative pressure requirements. If at any time the landfill observes conditions that warrant the operation of a well on the inactive list, the well shall be reactivated and normal default operational standards shall apply.

Alternative 3: A well in an area of active waste placement that is inaccessible due to its casing height (generally having a casing height of five feet or greater) may be temporarily placed on the inactive list, whereby the well would be exempt from wellhead monitoring requirements until landfilling around the well allows for safe access.

Alternative 4: A well may be operated at temperatures higher than 55°C (131°F), provided the following steps are taken:

- (a) Upon observation of a well temperature greater than 55°C (131°F), the initial course of action shall be to adjust the valve to either reduce or eliminate the vacuum applied to the well. This corrective action shall be taken within 5 days of the observation of an elevated reading.
- (b) If the reduction of vacuum favorably lowers the temperature but appears to be detrimental to gas collection, the operator shall adjust the well to the benefit of gas collection. If, as a result, the temperature climbs above 55°C (131°F), or if the temperature remained elevated throughout the well adjustments, carbon monoxide monitoring (to ensure carbon monoxide levels below 100 ppmv) will be conducted to verify that combustion within the waste mass is not occurring. In addition to measuring the temperature and carbon monoxide levels, the operator shall visually inspect the area around the well for signs of settlement or distressed vegetation, and shall inspect the wellhead for soot or other indications of combustion.
- (c) If the elevated temperatures persist at a well, and there are no signs of combustion or detrimental effects on anaerobic activity, the operator shall consider the well to be an Alternative 4 well and shall place the well under a period of observation. The observation period shall be characterized by the inclusion of carbon monoxide monitoring with the regular monthly monitoring events. This monitoring is in addition to the regular measurement of gauge pressure, temperature, and oxygen or nitrogen levels. Visual inspection of the wellhead and the area immediately surrounding the well will also be conducted.
- (d) At such time when the landfill has acquired sufficient background data, a new maximum operating temperature shall be selected for the well. The new temperature and supporting data shall be provided to PADEP and USEPA through a notification letter. If no objections are received from the regulatory agencies within 15 days of the letter submittal date, the



landfill may conclude that the alternative temperature is acceptable. At that time, routine carbon monoxide monitoring of the well will be discontinued. However, visual inspection of the wellhead and the area immediately surrounding the well shall be included with the regular monthly monitoring events throughout the entire period of time that a well is operated under Alternative 4.

[From Plan Approval 10-284F, Section D, Source 101, Condition # 025] [In accordance with 40 CFR § 63.1955(a), alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions already approved under 40 CFR Part 60, Subpart WWW or subpart XXX can be used to comply with 40 CFR Part 63 Subpart AAAA.]

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. ***



Group Name: 02 - LANDFILL 60-XXX NSPS REQUIREMENTS
Group Description: Requirements from 40 CFR Part 60 Subpart XXX

Sources included in this group

ID Name

101 MUNICIPAL WASTE LANDFILL

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.763]

Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

Operational standards for collection and control systems.

[From 60.763(d)]

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 operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill.

[This condition containing the methane emission restriction is derived from 40 CFR § 60.763(d). The remainder of § 60.763 is printed under MONITORING REQUIREMENTS in this section of the permit.]

II. TESTING REQUIREMENTS.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.764]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
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. 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.

[Refer to regulation for equation 1.]

Where:

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

k = Methane generation rate constant, year-1.

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

Mi = Mass of solid waste in the ith section, megagrams.

ti = Age of the ith section, years.

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

 $3.6 \times 10-9 = Conversion factor.$

- (B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value 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.



[Refer to regulation for equation 2.]

Where:

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

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

R = Average annual acceptance rate, megagrams per year.

k = Methane generation rate constant, year-1.

t = Age of landfill, years.

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

c = Time since closure, years; for active landfill <math>c = 0 and e-kc = 1.

 $3.6 \times 10-9 =$ Conversion factor.

- (B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.
- (2) Tier 1. The owner or operator must compare the calculated NMOC mass emission rate to the standard of 34 megagrams per year.
- (i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 34 megagrams per year, then the 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.
- (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.
- (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.
- (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.
- (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 $\S60.767(c)$ and install and operate a gas collection and control system according to $\S60.762(b)(2)(ii)$ 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:

[Refer to regulation for equation 3.]

Where:

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



QLFG = Flow rate of landfill gas, cubic meters per minute. CNMOC = NMOC concentration, parts per million by volume as hexane.

- (1) 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]
- (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:

[Refer to regulation for equation 4.]

Where:

NMOCin = Mass of NMOC entering control device. NMOCout = Mass of NMOC exiting control device.

- (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 §60.8), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §60.764(b) or (d) according to §60.767(i)(1).
 - (2) [Reserved]

[Source: 81 FR 59368, Aug. 29, 2016]



III. MONITORING REQUIREMENTS.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.763]

Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014

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. [The requirement from 60.763(b)(1) to submit these records with the annual reports as provided in §60.767(g)(1) is printed under REPORTING REQUIREMENTS in this section of the permit];
- (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 shutdown 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.

[Source: 81 FR 59368, Aug. 29, 2016]



004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.765]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014
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:

[Refer to regulation for equation 5.]

Where:

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

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

R = Average annual acceptance rate, megagrams per year.

k = Methane generation rate constant, year-1.

t = Age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years.

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

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

[Refer to regulation for equation 6.]

Where:

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

k = Methane generation rate constant, year-1.

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

Mi = Mass of solid waste in the ith section, megagrams.

ti = Age of the ith section, years.

- (iii) If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, Equation 5 or Equation 6 in paragraphs (a)(1)(i) and (ii) of this section. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using Equation 5 or Equation 6 in paragraphs (a)(1)(i) or (ii) of this section or other methods must be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.
- (2) For the purposes of determining sufficient density of gas collectors for compliance with §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 re-monitoring shows an exceedance, the actions specified in paragraph (c)(4)(iii) or (v) of this section must be taken.
- (v) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the Administrator for approval.
- (5) The owner or operator must implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- (d) Each owner or operator seeking to comply with the provisions in paragraph (c) of this section or §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]

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.766]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
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 §60.767(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 non-enclosed 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 $\S60.762(b)(2)(iii)$ using a landfill gas treatment system must maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific treatment system monitoring plan required in $\S60.768(b)(5)(ii)$ 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]

IV. RECORDKEEPING REQUIREMENTS.

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.768]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
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. 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 §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 §60.762(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 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 date-stamped and taken at the first sampling location prior to sampling and at the last sampling location after sampling at the end of each sampling day, for the duration of the Tier 4 monitoring demonstration.
 - (3) Timestamp of each surface scan reading:
 - (i) Timestamp should be detailed to the nearest second, based on when the sample collection begins.
- (ii) A log for the length of time each sample was taken using a stopwatch (e.g., the time the probe was held over the area).
- (4) Location of each surface scan reading. The owner or operator must determine the coordinates using an instrument with an accuracy of at least 4 meters. Coordinates must be in decimal degrees with at least five decimal places.
 - (5) Monitored methane concentration (parts per million) of each reading.
 - (6) Background methane concentration (parts per million) after each instrument calibration test.
 - (7) Adjusted methane concentration using most recent calibration (parts per million).
- (8) For readings taken at each surface penetration, the unique identification location label matching the label specified in paragraph (d) of this section.
 - (9) Records of the operating hours of the gas collection system for each destruction device.
- (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]

V. REPORTING REQUIREMENTS.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.762]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014

Standards for air emissions from municipal solid waste landfills.

- (a) [Paragraph (a) of the regulation is not applicable to this facility.]
- (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) 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 §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) [Paragraph (c) of the regulation is not applicable to this facility.]
- (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]

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.763]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014

Operational standards for collection and control systems.

As required by 60.763(b)(1), pertaining to 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).

[This reporting requirement is derived from 60.763(b)(1). The remainder of § 60.763 is printed under MONITORING REQUIREMENTS in this section of the permit.]

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.767]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
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 §60.762(b)(2) using an active collection system designed in accordance with §60.762(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 §60.8, as applicable, unless the report of the results of the performance test has been submitted to the EPA via the EPA's CDX. 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 §60.768(c). 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 semi-annual reporting requirements in §63.1981(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 onsite 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 §§63.1958, 63.1960, and 63.1961, as allowed at §60.762(b)(2)(iv), must submit the 24-hour high temperature report according to §63.1981(k) of this chapter.

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

VI. WORK PRACTICE REQUIREMENTS.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.769]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
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:

[Refer to regulation for equation 7.]

Where:

Qi = NMOC emission rate from the ith section, megagrams per year.

k = Methane generation rate constant, year-1.

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

Mi = Mass of the degradable solid waste in the ith section, megagram.

ti = Age of the solid waste in the ith section, years.

CNMOC = Concentration of nonmethane organic compounds, parts per million by volume.

 $3.6 \times 10-9 =$ Conversion factor.

- (B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §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).

[Source: 81 FR 59368, Aug. 29, 2016]

VII. ADDITIONAL REQUIREMENTS.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.760]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014

Applicability, designation of affected source, 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.

[Source: 81 FR 59368, Aug. 29, 2016]

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR § 60.761]
Subpart XXX - Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction,
Reconstruction, or Modification After July 17, 2014
Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Act or in subpart A of this part.

Active collection system means a gas collection system that uses gas mover equipment.

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

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

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

Closure means that point in time when a landfill becomes a closed landfill.

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

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with §60.762(b)(2)(i).

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

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the state, local, or tribal agency responsible for regulating the landfill, plus any in-place



waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, the calculation must include a site-specific density, which must be recalculated annually.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emission rate cutoff means the threshold annual emission rate to which a landfill compares its estimated emission rate to determine if control under the regulation is required.

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

Flare means an open combustor without enclosure or shroud.

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

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

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

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

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

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

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

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

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

Municipal solid waste landfill or MSW landfill means an entire disposal facility in a contiguous geographical space where household waste is placed in or on land. An MSW landfill may also receive other types of RCRA Subtitle D wastes (§257.2 of this title) such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste,



and industrial solid waste. Portions of an MSW landfill may be separated by access roads. An MSW landfill may be publicly or privately owned. An MSW landfill may be a new MSW landfill, an existing MSW landfill, or a lateral expansion.

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of §60.764.

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

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

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

Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in 40 CFR 258.2.

Solid waste means the term solid waste as defined in 40 CFR 258.2.

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

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

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

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

Untreated landfill gas means any landfill gas that is not treated landfill gas.

[Source: 81 FR 59368, Aug. 29, 2016]

*** Permit Shield in Effect. ***



Group Name: 03 - LANDFILL 63-AAAA NESHAP REQMTS

Group Description: Requirements from 40 CFR Part 63 Subpart AAAA

Sources included in this group

ID Name 101 MUNICIPAL WASTE LANDFILL

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.

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1959]
Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills NMOC calculation procedures.

- (a) (c) [Paragraphs (a) through (c) are printed under REPORTING REQUIREMENTS in this section of the permit.]
- (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:

[Refer to regulation for pdf of equation 4.]

Where

NMOCin = Mass of NMOC entering control device. NMOCout = Mass of NMOC exiting control device.

- (e) For the performance test required in §63.1959(b)(2)(iii)(A), the net heating value of the combusted landfill gas as determined in §63.11(b)(6)(ii) is calculated from the concentration of methane in the landfill gas as measured by EPA Method 3C of appendix A to part 60 of this chapter. A minimum of three 30-minute EPA Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide is not applicable. EPA Method 3C may be used to determine the landfill gas molecular weight for calculating the flare gas exit velocity under §63.11(b)(7) of subpart A.
- (1) Within 60 days after the date of completing each performance test (as defined in §63.7), the owner or operator must submit the results of the performance tests, including any associated fuel analyses, required by §63.1959(c) or (e) according to §63.1981(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]

III. MONITORING REQUIREMENTS.

002 [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.

- (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:

[Refer to regulation for pdf of equation 5.]

Where:

Qm = Maximum expected gas generation flow rate, m3/yr.

Lo = Methane generation potential, m3/Mg solid waste.

R = Average annual acceptance rate, Mg/yr.

k = Methane generation rate constant, year-1.

t = Age of the landfill at equipment installation plus the time the owner or operator intends to use the gas mover equipment or active life of the landfill, whichever is less. If the equipment is installed after closure, t is the age of the landfill at installation, years.

c = Time since closure, years (for an active landfill <math>c = 0 and e-kc = 1).

2 = Constant.

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

[Refer to regulation for pdf of equation 6.]

Where:

Qm = Maximum expected gas generation flow rate, m3/yr.

k = Methane generation rate constant, year-1.

Lo = Methane generation potential, m3/Mg solid waste.

Mi = Mass of solid waste in the ith section, Mg.

ti = Age of the ith section, years.

- (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 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).
- (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]

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1961]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Monitoring of operations.

Except as provided in §63.1981(d)(2):

- (a) Each owner or operator seeking to comply with §63.1959(b)(2)(ii)(B) for an active gas collection system must install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
 - (1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §63.1960(a)(3); and
 - (2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
- (i) The nitrogen level must be determined using EPA Method 3C of appendix A-2 to part 60 of this chapter, unless an alternative test method is established as allowed by §63.1981(d)(2).
- (ii) Unless an alternative test method is established as allowed by §63.1981(d)(2), the oxygen level must be determined by an oxygen meter using EPA Method 3A or 3C of appendix A-2 to part 60 of this chapter or ASTM D6522-11 (incorporated 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 non-enclosed flare or an enclosed combustor or a treatment system must provide information satisfactory to the Administrator as provided in §63.1981(d)(2) describing the operation of the control device, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator must review the information and either approve it, or request that additional information be submitted. The Administrator may specify additional appropriate monitoring procedures.
- (e) Each owner or operator seeking to install a collection system that does not meet the specifications in §63.1962 or



seeking to monitor alternative parameters to those required by §§63.1958 through 63.1961 must provide information satisfactory to the Administrator as provided in §63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The Administrator may specify additional appropriate monitoring procedures.

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

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

004 [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.

[Source: 85 FR 17261, Mar. 26, 2020]

IV. RECORDKEEPING REQUIREMENTS.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.10]

Subpart A--General Provisions

Recordkeeping and reporting requirements.

[Paragraphs 63.10(b)(2)(i) through (b)(2)(v) are printed below as referenced by Table 1 to 40 CFR Part 63 Subpart AAAA. Refer to regulation for remaining paragraphs from §63.10.]

- (b) General recordkeeping requirements.
- (2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of --
- (i) The occurrence and duration of each startup or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards;
- (ii) The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment;
 - (iii) All required maintenance performed on the air pollution control and monitoring equipment;
- (iv) (A) Actions taken during periods of startup or shutdown when the source exceeded applicable emission limitations in a relevant standard and when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)); or
- (B) Actions taken during periods of malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when the actions taken are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3));
- (v) All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see §63.6(e)(3)) when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);
 - (vi) (xiv) [Refer to regulation for paragraphs (vi) through (xiv).]

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 71 FR 20455, Apr. 20, 2006; 85 FR 73886, Nov. 19, 2020]

006 [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.

[Source: 85 FR 17261, Mar. 26, 2020]

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1983]

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

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

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

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.10]

Subpart A--General Provisions

Recordkeeping and reporting requirements.

[From 63.10(d)(5) as referenced in Table 1 to Subpart AAAA of 40 CFR Part 63]

(d) (5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan (see §63.6(e)(3)), the owner or operator shall state such information in a startup, shutdown, and malfunction report. Actions taken to minimize emissions during such startups, shutdowns, and malfunctions shall be summarized in the report and may be done in checklist form; if actions taken are the same for each event, only one checklist is necessary. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup or



shutdown caused the source to exceed any applicable emission limitation in the relevant emission standards, or if a malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup or shutdown that caused the source to exceed any applicable emission limitation in the relevant emission standards, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions), and actions taken to minimize emissions in conformance with §63.6(e)(1)(i). Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in §63.9(i).

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 71 FR 20455, Apr. 20, 2006; 85 FR 73886, Nov. 19, 2020]

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1959]
Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills NMOC calculation procedures.

- (a) Calculate the NMOC emission rate using the procedures specified in §60.754(a) of this chapter, except:
- (1) NMOC emission rate. Beginning no later than September 27, 2021 the landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in paragraph (a)(1)(i) of this section or Equation 2 provided in paragraph (a)(1)(ii) of this section. Both Equation 1 and Equation 2 may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i) of this section, for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in paragraph (a)(1)(ii) of this section, for part of the life of the landfill. The values to be used in both Equation 1 and Equation 2 are 0.05 per year for k, 170 cubic meters per megagram (m3/Mg) for LO, and 4,000 parts per million by volume (ppmv) as hexane for the CNMOC. For landfills located in geographical areas with a 30-year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorologic site, the k value to be used is 0.02 per year.
 - (i) (A) Equation 1 must be used if the actual year-to-year solid waste acceptance rate is known.

[Refer to regulation for pdf of equation 1.]

Where:



MNMOC = Total NMOC emission rate from the landfill, Mg/yr.

k = Methane generation rate constant, year-1.

Lo = Methane generation potential, m3/Mg solid waste.

Mi = Mass of solid waste in the ith section, Mg.

ti = Age of the ith section, years.

CNMOC = Concentration of NMOC, ppmv as hexane.

 $3.6 \times 10-9 =$ Conversion factor.

- (B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value 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.

[Refer to regulation for pdf of equation 2.]

Where:

MNMOC = Mass emission rate of NMOC, Mg/yr.

Lo = Methane generation potential, m3/Mg solid waste.

R = Average annual acceptance rate, Mg/yr.

k = Methane generation rate constant, year-1.

t = Age of landfill, years.

CNMOC = Concentration of NMOC, ppmv as hexane.

c = Time since closure, years; for active landfill c=0 and e-kc = 1.

 $3.6 \times 10-9 =$ Conversion factor.

- (B) The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value of R, if documentation of the nature and amount of such wastes is maintained.
 - (2) Tier 1. The owner or operator must compare the calculated NMOC mass emission rate to the standard of 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:

[Refer to regulation for pdf of equation 3.]

Where:

MNMOC = Mass emission rate of NMOC, Mg/yr.

QLFG = Flow rate of landfill gas, m3 per minute.

CNMOC = Average NMOC concentration, ppmv as hexane.

 $1.89 \times 10-3 =$ Conversion factor.

- (1) The flow rate of landfill gas, QLFG, must be determined by measuring the total landfill gas flow rate at the common header pipe that leads to the control system using a gas flow measuring device calibrated according to the provisions of section 10 of EPA Method 2E of appendix A-1 of part 60.
- (2) The average NMOC concentration, CNMOC, must be determined by collecting and analyzing landfill gas sampled from the common header pipe before the gas moving or condensate removal equipment using the procedures in EPA Method 25 or 25C of appendix A-7 to part 60 of this chapter. The sample location on the common header pipe must be before any condensate removal or other gas refining units. The landfill owner or operator must divide the NMOC concentration from 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) (f) [Paragraphs (d) through (f) are printed under TESTING REQUIREMENTS in this section of the permit.]

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

010 [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.

[Source: 85 FR 17261, Mar. 26, 2020]

011 [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?

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 (l) of this section. The initial report must be submitted within 180 days of installation and startup of the collection and control system and must include the initial performance test report required under §63.7 of subpart A, as applicable. In the initial report, the process unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's CDX. For enclosed combustion devices and flares, reportable exceedances are defined under §63.1983(c). The semi-annual reports must contain the information in paragraphs (h)(1) through (8) of this section.
- (1) Number of times that applicable parameters monitored under §63.1958(b), (c), and (d) were exceeded and when the gas collection and control system was not operating under §63.1958(e), including periods of SSM. For each instance, report the date, time, and duration of each exceedance.
- (i) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the temperature and nitrogen or oxygen operational standards in introductory paragraph §63.1958(c), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under §63.1961(a)(3) were exceeded. For each instance, report the date, time, and duration of each exceedance.
- (ii) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with the operational standard for temperature in §63.1958(c)(1), provide a statement of the wellhead operational standard for temperature and oxygen you are complying with for the period covered by the report. Indicate the number of times each of those parameters monitored under §63.1961(a)(4) were exceeded. For each instance, report the date, time, and duration of each exceedance.
- (iii) Beginning no later than September 27, 2021, number of times the parameters for the site-specific treatment system in §63.1961(g) were exceeded.
- (2) Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under §63.1961.
- (3) Description and duration of all periods when the control device or treatment system was not operating and length of 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.

[Source: 85 FR 17261, Mar. 26, 2020]

VI. WORK PRACTICE REQUIREMENTS.

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.753] Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills Operational standards for collection and control systems.

[From 60.753(c) and (e). These paragraphs of the regulation are referenced by § 63.1958(c) and (e).]

- (c) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
- (1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by §60.752(b)(2)(i) of this subpart.
- (2) Unless an alternative test method is established as allowed by §60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
 - (i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;



- (ii) A data recorder is not required;
- (iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
- (iv) A calibration error check is not required;
- (v) The allowable sample bias, zero drift, and calibration drift are ± 10 percent.
- (e) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour; and

[61 FR 9919, Mar. 12, 1996, as amended at 63 FR 32751, June 16, 1998; 65 FR 61778, Oct. 17, 2000]

013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1955]

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

- (a) 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) [Paragraph (b) is not applicable to landfills which do not operate bioreactors.]
- (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.

[Source: 85 FR 17261, Mar. 26, 2020]

014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1957]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Requirements for gas collection and control system installation and removal.

- (a) Operation. Operate the collection and control device in accordance with the provisions of §§63.1958, 63.1960, and 63.1961.
- (b) Removal criteria. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
- (1) The landfill is a closed landfill (as defined in §63.1990). A closure report must be submitted to the Administrator as provided in §63.1981(f);
- (2) The gas collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and





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

[Source: 85 FR 17261, Mar. 26, 2020]

015 [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.

[This condition referenced 40 CFR § 60.753(c) and (e) which are printed in separate conditions in this section of the permit.]

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]

016 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1962] Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

Specifications for active collection systems.

- (a) Each owner or operator seeking to comply with $\S63.1959(b)(2)(i)$ 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 $\S63.1981(d)(2)$ 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:

[Refer to regulation for pdf of equation 7.]

Where

Qi = NMOC emission rate from the ith section, Mg/yr.

k = Methane generation rate constant, year -1.

Lo = Methane generation potential, m3/Mg solid waste.

Mi = Mass of the degradable solid waste in the ith section, Mg.

ti = Age of the solid waste in the ith section, years.

CNMOC = Concentration of NMOC, ppmv.

 $3.6 \times 10-9 =$ Conversion factor.

- (B) If the owner/operator is proposing to exclude, or cease gas collection and control from, nonproductive physically separated (e.g., separately lined) closed areas that already have gas collection systems, NMOC emissions from each physically separated closed area must be computed using either Equation 3 in §63.1959(c) or Equation 7 in paragraph (a)(3)(ii)(A) of this section.
- (iii) The values for k and CNMOC determined in field testing must be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (the distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, 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).

[Source: 85 FR 17261, Mar. 26, 2020]

VII. ADDITIONAL REQUIREMENTS.

017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.750]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

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

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.750 are incorporated into this permit by reference to the regulation.]

018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.751]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Definitions.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.751 are incorporated into this permit by reference to the regulation.]

019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.752]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Standards for air emissions from municipal solid waste landfills.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.752 are incorporated into this permit by reference to the regulation.]

020 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.753]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Operational standards for collection and control systems.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.753(a), (b), (d), and (f) are incorporated into this permit by reference to the regulation. The provisions of § 60.753(c) and (e) are printed under WORK PRACTICE REQUIREMENTS in this section of the permit.]

021 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.754]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Test methods and procedures.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.754 are incorporated into this permit by reference to the regulation.]

022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.755]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Compliance provisions.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.755 are incorporated into this permit by reference to the regulation.]

023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.756]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Monitoring of operations.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.756 are incorporated into this permit by reference to the regulation.]

024 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.757]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Reporting requirements.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.757 are incorporated into this permit by reference to the regulation.]

025 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.758]

Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills

Recordkeeping requirements.



[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.758 are incorporated into this permit by reference to the regulation.]

026 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.759] Subpart WWW--Standards of Performance for Municipal Solid Waste Landfills Specifications for active collection systems.

[In accordance with § 63.1930(a) of 40 CFR Part 63 Subpart AAAA, the provisions of 40 CFR § 60.759 are incorporated into this permit by reference to the regulation.]

027 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63 Subpart AAAA Table 1]
Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills
Applicability of NESHAP General Provisions to Subpart AAAA

As specified in this subpart, you must meet each requirement in the following table that applies to you. The owner or operator may begin complying with the provisions that apply no later than September 27, 2021, any time before that date.

Table 1 to Subpart AAAA of Part 63—Applicability of NESHAP General Provisions to Subpart AAAA

\$63.1(a) Applicability General applicability of NESHAP in this part \$63.1(b) Applicability determination Yes Yes Yes for stationary sources \$63.1(c) Applicability after a No (note 1) Yes standard has been set Standard has been set Standard has been set Standard is seen set Standard is set Standard is set Standard is set Standard is Standard	Part 63 citation	Description	Applicable to subpart AAAA Before September 28, 2021	Applicable to subpart AAAA no later than September 27, 2021	Explanation
\$63.1(b) Applicability determination for stationary sources \$63.1(c) Applicability after a standard has been set \$63.1(e) Applicability of permit yes Yes Yes Pes Pes Pes Pes Pes Pes Pes Pes Pes P	§63.1(a)	applicability of NESHAP in	Yes	Yes	
standard has been set §63.1(e) Applicability of permit program before relevant standard is set §63.2 Definitions Yes Yes §63.3 Units and abbreviations No (note 1) Yes §63.4 Prohibited activities and circum vention §63.5(a) Construction/reconstruction No (note 1) Yes §63.5(b) Requirements for existing, Yes Yes newly constructed, and reconstructed sources §63.5(d) Application for approval No (note 1) Yes of construction or reconstruction §63.5(e) and (f) Approval of construction No (note 1) Yes and reconstruction §63.6(a) Compliance with standards No (note 1) Yes and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.1(b)	Applicability determination	Yes	Yes	
program before relevant standard is set §63.2 Definitions Yes Yes §63.3 Units and abbreviations No (note 1) Yes §63.4 Prohibited activities and Yes Yes circumvention §63.5(a) Construction/reconstruction No (note 1) Yes §63.5(b) Requirements for existing, Yes Yes newly constructed, and reconstructed sources §63.5(d) Application for approval No (note 1) Yes of construction §63.5(e) and (f) Approval of construction §63.6(a) Compliance with standards No (note 1) Yes and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.1(c)		No (note 1)	Yes	
\$63.3 Units and abbreviations No (note 1) Yes \$63.4 Prohibited activities and circumvention \$63.5(a) Construction/reconstruction No (note 1) Yes \$63.5(b) Requirements for existing, newly constructed, and reconstructed sources \$63.5(d) Application for approval of construction or reconstruction \$63.5(e) and (f) Approval of construction and reconstruction \$63.6(a) Compliance with standards and maintenance requirements applicability \$63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources \$63.6(e)(1)(i)-(ii) Operation and maintenance requirements No (note 1) Yes No (note 1) Yes See \$63.1955(c) for general duty requirements	§63.1(e)	program before relevant	Yes	Yes	
\$63.4 Prohibited activities and circumvention \$63.5(a) Construction/reconstruction \$63.5(b) Requirements for existing, Yes Yes newly constructed, and reconstructed sources \$63.5(d) Application for approval of construction or reconstruction \$63.5(e) and (f) Approval of construction \$63.5(e) and (f) Approval of construction and reconstruction \$63.6(a) Compliance with standards and maintenance requirements applicability \$63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources \$63.6(e)(1)(i)-(ii) Operation and maintenance requirements Yes Yes Yes Yes Yes Yes No (note 1) Yes No (note 1) Yes No (note 1) Yes See §63.1955(c) for general duty requirements	§63.2	Definitions	Yes	Yes	
circumvention §63.5(a) Construction/reconstruction No (note 1) Yes §63.5(b) Requirements for existing, newly constructed, and reconstructed sources §63.5(d) Application for approval of construction or reconstruction §63.5(e) and (f) Approval of construction and reconstruction §63.6(a) Compliance with standards and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.3	Units and abbreviations	No (note 1)	Yes	
\$63.5(b) Requirements for existing, newly constructed, and reconstructed sources \$63.5(d) Application for approval of construction or reconstruction \$63.5(e) and (f) Approval of construction and reconstruction \$63.6(a) Compliance with standards and maintenance requirements applicability \$63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources \$63.6(e)(1)(i)-(ii) Operation and maintenance requirements Yes Yes Yes Yes Yes No (note 1) Yes No (note 1) Yes No (note 1) Yes See §63.1955(c) for general duty requirements	§63.4		Yes	Yes	
newly constructed, and reconstructed sources §63.5(d) Application for approval No (note 1) Yes of construction or reconstruction §63.5(e) and (f) Approval of construction No (note 1) Yes and reconstruction §63.6(a) Compliance with standards No (note 1) Yes and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.5(a)	Construction/reconstruction	No (note 1)	Yes	
of construction or reconstruction §63.5(e) and (f) Approval of construction No (note 1) Yes and reconstruction §63.6(a) Compliance with standards No (note 1) Yes and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.5(b)	newly constructed, and	Yes	Yes	
and reconstruction §63.6(a) Compliance with standards and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance requirements No (note 1) Yes Yes No See §63.1955(c) for general duty requirements	§63.5(d)	of construction or	No (note 1)	Yes	
and maintenance requirements applicability §63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance requirements No (note 1) Yes Yes No See §63.1955(c) for general duty requirements	§63.5(e) and (f)	• •	No (note 1)	Yes	
§63.6(b) and (c) Compliance dates for new, reconstructed, and existing sources §63.6(e)(1)(i)-(ii) Operation and maintenance requirements No (note 1) Yes Yes No See §63.1955(c) for general duty requirements	§63.6(a)	and maintenance	No (note 1)	Yes	
§63.6(e)(1)(i)-(ii) Operation and maintenance Yes No See §63.1955(c) for general duty requirements	§63.6(b) and (c)	Compliance dates for new, reconstructed, and existing	No (note 1)	Yes	
	§63.6(e)(1)(i)-(ii)	Operation and maintenance	Yes	No	
	63.6(e)(3)(i)-(ix)	•	Yes	No	



63.6(f)(1)	Exemption of nonopacity emission standards during SSM	Yes	No	
§63.6(f)(2) and (3	B) Compliance with nonopacity emission standards	Yes	Yes	
§63.6(g)	Use of an alternative nonopacity standard	No (note 1)	Yes	
§63.6(h)	Compliance with opacity and visible emission standards	No (note 1)	No	Subpart AAAA does not prescribe opacity or or visible emission standards.
§63.6(i)	Extension of compliance with emission standards	No (note 1)	Yes	or weight difficulties
§63.6(j)	Exemption from compliance with emission standards	No (note 1)	Yes	
§63.7	Performance testing	No (note 1)	Yes	
§63.7(e)(1)	Conditions for performing performance tests	No (note 1)	No	40 CFR 63.1959(f) specifies the conditions for performing performance tests.
§63.8(a) and (b)	Monitoring requirements Applicability and conduct of monitoring	No (note 1)	Yes	
§63.8(c)(1)	Operation and Maintenance of continuous emissions	No (note 1)	Yes	
§63.8(c)(1)(i)	monitoring system Operation and Maintenance Requirements	No (note 1)	No	Unnecessary due to the requirements of §63.8(c)(1) and the requirements for a quality control plan for monitoring
				equipment in §63.8(d)(2).
§63.8(c)(1)(ii)	Operation and Maintenance Requirements	No (note 1)	No	
§63.8(c)(1)(iii)	SSM plan for monitors	No (note 1)	No	
§63.8(c)(2)-(8)	Monitoring requirements	No (note 1)	Yes	
§63.8(d)(1)	Quality control for monitors	No (note 1)	Yes	
§63.8(d)(2)	Quality control for monitors	No (note 1)	Yes	
§63.8(d)(3)	Quality control records	No (note 1)	No	See §63.1983(c)(8).
§63.9(a), (c), and	(d) Notifications	No (note 1)	Yes	
§63.9(b)	Initial notifications	No (note 1)	Yes (no	te 2)
§63.9(e)	Notification of performance test	No (note 1)	Yes (no	te 2)
§63.9(f)	Notification of visible emissions/opacity test	No (note 1)	No	Subpart AAAA does not prescribe opacity or visible emission standards.
§63.9(g)	Notification when using CMS	No (note 1)	Yes (no	
§63.9(h)	Notification of compliance status	No (note 1)	Yes (no	•
§63.9(i)	Adjustment of submittal deadlines	No (note 1)	Yes	3
§63.9(j)	Change in information already provided	No (note 1)	Yes	5
§63.10(a)	Recordkeeping and reporting general	No (note 1)	Yes	S
§63.10(b)(1)	General recordkeeping	No (note 1)	Yes	;
§63.10(b)(2)(i)	Startup and shutdown records	Yes	No	See §63.1983(c)(6) for recordkeeping for periods of startup and shutdown.
§63.10(b)(2)(ii)	Recordkeeping of failures to meet a standard	Yes	No	See §63.1983(c)(6)-(7) for recordkeeping for any exceedance



				of a standard.
§63.10(b)(2)(iii)	Recordkeeping of maintenance on air pollution control equipment	Yes	Yes	
§63.10(b)(2)(iv)-(v)	Actions taken to minimize emissions during SSM	Yes	No	See §63.1983(c)(7) for recordkeeping of corrective actions to restore compliance.
§63.10(b)(vi)	Recordkeeping for CMS malfunctions	No (note 1)	Yes	·
§63.10(b)(vii)-(xiv)	Other Recordkeeping of compliance measurements	No (note 1)	Yes	
§63.10(c)	Additional recordkeeping for sources with CMS	No (note 1)	No	See §63.1983 for required CMS recordkeeping.
§63.10(d)(1)	General reporting	No (note 1)	Yes	
§63.10(d)(2)	Reporting of performance test results	No (note 1)	Yes	
§63.10(d)(3)	Reporting of visible emission observations	No (note 1)	Yes	
§63.10(d)(4)	Progress reports for compliance date extensions	No (note 1)	Yes	
§63.10(d)(5)	SSM reporting	Yes	No	All exceedances must be reported in the semi-annual report required by §63.1981(h).
§63.10(e)	Additional reporting for CMS systems	No (note 1)	Yes	, , , , , , , , , , , , , , , , , , , ,
§63.10(f)	Recordkeeping/reporting waiver	No (note 1)	Yes	
§63.11	Control device requirements/flares	No (note 1)	Yes	§60.18 is required before September 27, 2021. However, §60.18 and 63.11 are equivalent.
§63.12(a)	State authority	Yes	Yes	
§63.12(b)-(c)	State delegations	No (note 1)	Yes	
§63.13	Addresses	No (note 1)	Yes	.
§63.14	Incorporation by reference	No (note 1)	Yes	6
§63.15	Availability of information and confidentiality	Yes	Yes	

Note 1: Before September 28, 2021, this subpart requires affected facilities to follow 40 CFR part 60, subpart WWW, which incorporates the General Provisions of 40 CFR part 60.

Note 2: If an owner or operator has complied with requirements that are parallel to the requirements of the part 63 citation of this table under 40 CFR part 60, subpart WWW or subpart XXX, or a state or federal plan that implements 40 CFR part 60, subpart Cc or Cf, then additional notification for that requirement is not required.

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

028 [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?

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.

[Source: 85 FR 17261, Mar. 26, 2020]

029 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.1935]

Subpart AAAA - National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills Am I subject to this subpart?

You are subject to this subpart if you meet the criteria in paragraph (a) or (b) of this section.

- (a) You are subject to this subpart if you own or operate an MSW landfill that has accepted waste since November 8, 1987, or has additional capacity for waste deposition and meets any one of the three criteria in paragraphs (a)(1) through (3) of this section:
 - (1) (2) [Not applicable because this landfill is not a major source and 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.
- (b) [Paragraph (b) of the regulation is not applicable to landfills which do not have bioreactors.]

[Source: 85 FR 17261, Mar. 26, 2020]

030 [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?

- (a) An affected source of this subpart is an 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) A new affected source of this subpart is an affected source that commenced construction or reconstruction after November 7, 2000. An affected source is reconstructed if it meets the definition of reconstruction in §63.2 of subpart A.
- (c) An affected source of this subpart is existing if it is not new.

[Source: 85 FR 17261, Mar. 26, 2020]

031 [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?

- (a) If your landfill is a new affected source, you must comply with this subpart by January 16, 2003, or at the time you begin operating, whichever is later.
- (b) If your landfill is an existing affected source, you must comply with this subpart by January 16, 2004.

[Source: 85 FR 17261, Mar. 26, 2020]

032 [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?

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).

[Source: 85 FR 17261, Mar. 26, 2020]

033 [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?

- (a) This subpart can be implemented and enforced by the EPA, or a delegated authority such as the applicable state, local, or tribal agency. If the EPA Administrator has delegated authority to a state, local, or tribal agency, then that agency as well as the EPA has the authority to implement and enforce this subpart. Contact the applicable EPA Regional office to find out if this subpart is delegated to a state, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency.
- (c) The authorities that will not be delegated to state, local, or tribal agencies are as follows. Approval of alternatives to the standards in §§63.1955 through 63.1962. Where this subpart references 40 CFR part 60, subpart WWW, the cited provisions will be delegated according to the delegation provisions of 40 CFR part 60, subpart WWW. For this subpart, the EPA also retains the authority to approve methods for determining the NMOC concentration in §63.1959(a)(3) and the method for determining the site-specific methane generation rate constant k in §63.1959(a)(4).

[Source: 85 FR 17261, Mar. 26, 2020]

034 [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?

Terms used in this subpart are defined in the Clean Air Act, 40 CFR part 60, subparts A, Cc, Cf, WWW, and XXX; 40 CFR part 62, subpart GGG, and subpart A of this part, and this section that follows:

Active collection system means a gas collection system that uses gas mover equipment.

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

Bioreactor means an MSW landfill or portion of an MSW landfill where any liquid other than leachate (leachate includes landfill gas condensate) is added in a controlled fashion into the waste mass (often in combination with recirculating leachate) to reach a minimum average moisture content of at least 40 percent by weight to accelerate or enhance the anaerobic (without oxygen) biodegradation of the waste.

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

Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under §63.9(b). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

Closure means that point in time when a landfill becomes a closed landfill.

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

Controlled landfill means any landfill at which collection and control systems are required under this subpart as a result of the nonmethane organic compounds emission rate. The landfill is considered controlled at the time a collection and control system design plan is submitted in compliance with §60.752(b)(2)(i) of this chapter or in compliance with §63.1959(b)(2)(i).

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available,



and an explanation of why the selected corrective action(s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety, and secondary impacts.

Cover penetration means a wellhead, a part of a landfill gas collection or operations system, and/or any other object that completely passes through the landfill cover. The landfill cover includes that portion which covers the waste, as well as the portion which borders the waste extended to the point where it is sealed with the landfill liner or the surrounding land mass. Examples of what is not a penetration for purposes of this subpart include but are not limited to: Survey stakes, fencing including litter fences, flags, signs, utility posts, and trees so long as these items do not pass through the landfill cover.

Design capacity means the maximum amount of solid waste a landfill can accept, as indicated in terms of volume or mass in the most recent permit issued by the state, local, or tribal agency responsible for regulating the landfill, plus any in-place waste not accounted for in the most recent permit. If the owner or operator chooses to convert the design capacity from volume to mass or from mass to volume to demonstrate its design capacity is less than 2.5 million Mg or 2.5 million m3, the calculation must include a site-specific density, which must be recalculated annually.

Deviation before September 28, 2021, means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice requirement;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) 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.

Deviation beginning no later than September 27, 2021, means any instance in which an affected source subject to this subpart or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including but not limited to any emission limit, or operating limit, or work practice requirement; or
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Disposal facility means all contiguous land and structures, other appurtenances, and improvements on the land used for the disposal of solid waste.

Emissions limitation means any emission limit, opacity limit, operating limit, or visible emissions limit.

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

EPA approved State plan means a State plan that EPA has approved based on the requirements in 40 CFR part 60, subpart B to implement and enforce 40 CFR part 60, subparts Cc or Cf. An approved state plan becomes effective on the date specified in the document published in the Federal Register announcing EPA's approval.

EPA approved Tribal plan means a plan submitted by a tribal authority pursuant to 40 CFR parts 9, 35, 49, 50, and 81 to implement and enforce 40 CFR part 60, subpart Cc or subpart Cf.

Federal plan means the EPA plan to implement 40 CFR part 60, subparts Cc or Cf for existing MSW landfills located in states and Indian country where state plans or tribal plans are not currently in effect. On the effective date of an EPA approved state or tribal plan, the Federal Plan no longer applies. The Federal Plan implementing 40 CFR part 60, subpart Cc is found at 40 CFR part 62, subpart GGG.

Flare means an open combustor without enclosure or shroud.



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

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

Industrial solid waste means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under Subtitle C of the Resource Conservation and Recovery Act, 40 CFR parts 264 and 265. Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment. This term does not include mining waste or oil and gas waste.

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

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

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

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

Modification means an increase in the permitted volume design capacity of the landfill by either lateral or vertical expansion based on its permitted design capacity after November 7, 2000. Modification does not occur until the owner or operator commences construction on the lateral or vertical expansion.

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

Municipal solid waste landfill emissions or MSW landfill emissions means gas generated by the decomposition of organic waste deposited in an MSW landfill or derived from the evolution of organic compounds in the waste.

NMOC means nonmethane organic compounds, as measured according to the provisions of §63.1959.

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

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

Root cause analysis means an assessment conducted through a process of investigation to determine the primary cause, and any other contributing causes, of an exceedance of a standard operating parameter at a wellhead.



Segregated yard waste means vegetative matter resulting exclusively from the cutting of grass, the pruning and/or removal of bushes, shrubs, and trees, the weeding of gardens, and other landscaping maintenance activities.

Sludge means the term sludge as defined in §258.2 of this chapter.

Solid waste means the term solid waste as defined in §258.2 of this chapter.

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

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

Treated landfill gas means landfill gas processed in a treatment system as defined in this subpart.

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

Untreated landfill gas means any landfill gas that is not treated landfill gas.

Work practice requirement means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

[Source: 85 FR 17261, Mar. 26, 2020]

035 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.2]

Subpart A--General Provisions

Definitions.

The terms used in this part are defined in the Act or in this section as follows:

[Selected definitions are printed below. Refer to regulation for remaining definitions.]

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Commenced means, with respect to construction or reconstruction of an affected source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Construction means the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Malfunction means 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.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part establishing an emission standard applicable to such source.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the



hour.

Reconstruction, unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously nonaffected source to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
- (2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

Working day means any day on which Federal Government offices (or State government offices for a State that has obtained delegation under section 112(I)) are open for normal business. Saturdays, Sundays, and official Federal (or where delegated, State) holidays are not working days.

[59 FR 12430, Mar. 16, 1994, as amended at 67 FR 16596, Apr. 5, 2002; 68 FR 32600, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 72 FR 27443, May 16, 2007; 85 FR 63418, Oct. 7, 2020; 85 FR 73885, Nov. 19, 2020]

*** Permit Shield in Effect. ***



Group Name: 04 - GP-3 CRUSHING & SCREENING

Group Description: Requirements from GP-3 Plan Approval for Portable nonmetallic mineral processing plants

Sources included in this group

ID	Name
108	PORTABLE NONMETALLIC MINERAL PROCESSING PLANT

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

All reasonable actions shall be taken to prevent particulate matter from becoming airborne. These actions include, but are not limited to, the following:

- i. Proper installation of a water spray dust suppression system and operation in accordance with Condition 18 or proper design, installation, and operation of a fabric collector.
- ii. Application of asphalt, water or suitable chemicals on dirt roads, material stockpiles and other surfaces that may give rise to airborne dusts.
 - iii. Paving and maintenance of plant roadways.
- iv. Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosions by water, or other means.

[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 17.a]

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.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall notify the Department, by telephone, within 24 hours of the discovery of any malfunction of a portable nonmetallic mineral processing plant operating pursuant to this General Permit, or any malfunction of an associated air cleaning device, which results in, or may possibly be resulting in, the emission of air contaminants in excess of any applicable limitation specified herein or in excess of the limitations specified in any applicable rule or regulation contained in 25 Pa. Code Chapters 121 through 145 or which otherwise results in, or may possibly be resulting in, noncompliance with the requirements specified in any applicable condition of this Permit (if the permittee is unable to provide notification within 24 hours of discovery due to a weekend or holiday, the notification shall be made to the Department by no later than 4 p.m. on the first Department business day following the respective weekend or holiday). The permittee shall additionally provide whatever subsequent written report the Department may request regarding any reported malfunction.

[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 6]



The address and phone number for notification is:

Bureau of Air Quality DEP Northwest Regional Office 230 Chestnut Street Meadville, PA 16335 Office Hours 8 a.m. - 4 p.m. Phone: 814-332-6945 (business hours)

1-800-541-2050 (after hours)

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

In advance of each change in location without any modification of the portable nonmetallic mineral processing plant the permittee shall, in accordance with 25 Pa. Code § 127.641, notify both the Department and the municipality where the operation will take place. The notice to the Department shall require an application and appropriate fees required by Plan Approval GP-3 Condition 10.b.

[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 12]

The address for notification is:

Bureau of Air Quality Department of Environmental Protection 230 Chestnut Street Meadville, PA 16335

VI. WORK PRACTICE REQUIREMENTS.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The portable nonmetallic mineral processing plant and any associated air cleaning devices shall be:

- a. Operated in such a manner as not to cause air pollution, as the term is defined in 25 Pa. Code § 121.1.
- b. Operated and maintained in a manner consistent with good operating and maintenance practices.
- c. Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 4]

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Water spray dust suppression systems on portable nonmetallic mineral processing plants shall be operated on any and all occasions that the respective plant is operated. Operation without simultaneous operation of the water spray dust suppression system can take place only in those unusual instances where processed materials contain sufficient moisture so as not to create air contaminant emissions in excess of the limitations and standards of this General Permit. If, however, the water spray dust suppression system is incapable of operation due to weather conditions or any other reason, the permittee may not operate the plant. A pressure gauge will be installed to indicate a normal operation of the dust suppression system.

[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 18.a]

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall keep on hand such equipment and materials as are necessary to take reasonable action (including, but not limited to the application of water, oil or chemicals) to prevent fugitive particulate matter resulting from the use of any roadways and/or material stockpiling operations associated with the plant from becoming airborne and shall be used, as necessary, to prevent such fugitive particulate matter from becoming airborne.



[From Plan Approval GP-3 #10-284 (Rev 6/2006) Condition # 19.b]

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. ***



Group Name: 05 - 60-OOO CRUSHING & SCREENING

Group Description: Requirements from 40 CFR Part 60 Subpart OOO for nonmetallic mineral processing plants

Sources included in this group

ID Name

108 PORTABLE NONMETALLIC MINERAL PROCESSING PLANT

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.672]

Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Standard for particulate matter.

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

[The applicable requirements from Table 3 are printed in a separate condition in this section of permit.]

- (c) [Reserved]
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) (f) [Paragraphs (e) & (f) of the regulation are not applicable to this source.

[Source: 74 FR 19309, Apr. 28, 2009]

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR Part 60 Subpart 000 Table 3]
Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

Fugitive Emission Limits

[Applicable language from Table 3 is printed below; non-applicable categories of Table 3 omitted.]

The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671):

7 percent opacity

The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used:

12 percent opacity

[Refer to TESTING REQUIREMENTS in this section of permit for remaining applicable regulatory requirements from Table 3.]

[Source: 74 FR 19309, Apr. 28, 2009]

II. TESTING REQUIREMENTS.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.675] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Test methods and procedures.



[Refer to regulation for test methods for 40 CFR Part 60 Subpart OOO.]

[Initial Method 9 observations were completed on the rock crushing operation of Source 108 on November 24, 2015, and results are on file with the Department.]

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR Part 60 Subpart 000 Table 3] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Fugitive Emission Limits

[Applicable Testing requirements from Table 3 are printed here. Non-applicable categories are omitted from this permit.]

- (a) The owner or operator must demonstrate compliance with the limits of 40 CFR Part 60 Subpart OOO by conducting
- (1) An initial performance test according to §60.11 of this part and §60.675 of this subpart; [The requirement for an initial performance test is a one-time requirement that is no longer applicable to the ROCK CRUSHER since the initial test on the ROCK CRUSHER was completed on November 24, 2015, and results are on file with the Department.] and
- (2) [The requirement of periodic inspections of water sprays is printed under MONITORING REQUIREMENTS in this section of the permit.]
- (3) A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §§60.674(b) and 60.676(b) are exempt from this 5-year repeat testing requirement.

[Source: 74 FR 19309, Apr. 28, 2009]

III. MONITORING REQUIREMENTS.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.674] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Monitoring of operations.

- (a) [Paragraph (a) of the regulation does not apply to this facility.]
- (b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).
- (1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:
- (i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and
- (ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.
- (2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.



(c) - (e) [Paragraphs (c) through (e) of the regulation do not apply to this facility.]

[Source: 74 FR 19309, Apr. 28, 2009]

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR Part 60 Subpart 000 Table 3] Subpart 000 - Standards of Performance for Nonmetallic Mineral Processing Plants
Fugitive Emission Limits

[Applicable requirements from Table 3 are printed here. Non-applicable categories are omitted from this permit.]

- (a) The owner or operator must demonstrate compliance with the limits of 40 CFR Part 60 Subpart OOO by conducting
- (1) [The requirement for an initial performance test is is printed under TESTING REQUIREMENTS in this section of the permit.]; and
 - (2) Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
- (3) [The requirement for a repeat performance test is printed under TESTING REQUIREMENTS in this section of the permit.]

[Source: 74 FR 19309, Apr. 28, 2009]

IV. RECORDKEEPING REQUIREMENTS.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.676] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Reporting and recordkeeping.

- (a) [Paragraph (a) of the regulation is printed under REPORTING REQUIREMENTS in this section of the permit.]
- (b) (1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.
 - (2) (3) [Paragraphs (b)(2) & (b)(3) are not applicable.]
- (c) (k) [Paragraphs (c) through (k) of the regulation are printed under REPORTING REQUIREMENTS in this section of the permit.]

[Source: 74 FR 19309, Apr. 28, 2009]

V. REPORTING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All requests, notifications, reports, applications, submittals, and other communications to the Administrator pursuant to Part 60 shall be submitted either by mailing or by uploading to the DEP website at the following addresses.

(1) The mailing address is:

Bureau of Air Quality
Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335
814-332-6940 (phone)
814-332-6121 (fax)

(2) Electronic submissions to the Northwest Regional Office Air Quality program may be submitted by use of the OnBase-DEP Upload Form at this address https://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx in lieu of sending paper copies to the Department. If using the tool to submit non permit related information, please use the



"Other" as the both the form name and document type. Guidance for the new online permit application tool can be found at this web address https://files.dep.state.pa.us/DataAndTools/ApplicationFormUpload/OnBase_form_May132020.pdf

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.676] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Reporting and recordkeeping.

- (a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.
 - (1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:
 - (i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and
 - (ii) The rated capacity in tons per hour of the replacement equipment.
 - (2) For a screening operation:
 - (i) The total surface area of the top screen of the existing screening operation being replaced and
 - (ii) The total surface area of the top screen of the replacement screening operation.
 - (3) For a conveyor belt:
 - (i) The width of the existing belt being replaced and
 - (ii) The width of the replacement conveyor belt.
 - (4) For a storage bin:
 - (i) The rated capacity in megagrams or tons of the existing storage bin being replaced and
 - (ii) The rated capacity in megagrams or tons of replacement storage bins.
- (b) [Paragraph (b) is printed under RECORDKEEPING in this section of permit.]
- (c) (e) [Paragraphs (c) through (e) of the regulation do not apply.]
- (f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).
- (g) (i) [Paragraphs (g) through (i) are not or no longer applicable.]
- (j) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.
- (k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

[Source: 74 FR 19309, Apr. 28, 2009]

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.

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources § 40 CFR Part 60 Subpart 000 Table 1]

Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Exceptions to Applicability of Subpart A to Subpart OOO

Subpart A reference Applies to subpart OOO Explanation

60.4, Address Yes Except in §60.4(a) and (b) submittals need not be

submitted to both the EPA Region and delegated

State authority (§60.676(k)).

60.7, Notification and recordkeeping Yes Except in (a)(1) notification of the date construction or

reconstruction commenced (§60.676(h)).

Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days

(§60.675(g)).

60.8, Performance tests Yes Except in (d) performance tests involving only

Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days

(§60.675(g)).

60.11, Compliance with standards Yes Except in (b) under certain conditions (§§60.675(c)),

Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive

emissions.

60.18, General control device No Flares will not be used to comply with the emission limits.

[Source: 74 FR 19309, Apr. 28, 2009]

and maintenance requirements

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.670] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Applicability and designation of affected facility.

- (a) (1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.
 - (2) [Not applicable.]
- (b) (c) [Not applicable.]
- (d) (1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
- (2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).
- (3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.
- (e) An affected facility under paragraph (a) of this section that commences construction, modification, or reconstruction after August 31, 1983, is subject to the requirements of this part.



(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

[Source: 74 FR 19309, Apr. 28, 2009]

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.673] Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants Reconstruction.

- (a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.
- (b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

[Source: 74 FR 19309, Apr. 28, 2009]

*** Permit Shield in Effect. ***





Group Name: 06 - EXEMPT ENGINES

Group Description: RFD approval and operating permit requirements for internal combustion engines exempt from

Sources included in this group

ID	Name
104	335 KW LANDFILL GAS ENGINE/GENERATOR
106	67 HP DUETZ DIESEL ENGINE (ORIG EXTEC 5000S SCREEN PLANT)
110	67 HP DUETZ DIESEL ENGINE (2ND EXTEC 5000S PORTABLE SCREEN)
301	330 HP DETROIT DIESEL-FUELED EMERGENCY GENERATOR #1
302	725 HP CATERPILLAR D348 DIESEL FUELED EMERGENCY GENERATOR #2

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

No person may permit the emission into the outdoor atmosphere of particulate matter from any process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §123.21]

General

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

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Visible emissions from engine stacks shall not exceed the following limitations:

- (a) Equal to or greater than 10% for a period or periods aggregating more than three (3) minutes in any one (1) hour; and
- (b) Equal to or greater than 30% at any time.

Fuel Restriction(s).

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The sulfur content in diesel fuel shall not at any time exceed 0.3 percent (by weight).

Operation Hours Restriction(s).

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The engines powering the Portable Screening Plants, Source 106 and Source 110, shall not be operated for more than 1,500 hours combined during any 12 consecutive month period.

[From the July 25, 2016, RFD approval.]

II. TESTING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Department reserves the right to require source testing in accordance with applicable provisions of 25 Pa. Code Chapter 139 (relating to sampling and testing) to demonstrate compliance with the pollutant specific emission rates stated in the application.



III. MONITORING REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall install and maintain a non-resettable hour meter on each internal combustion engine.

[This condition is derived from the July 25, 2016, RFD approval and compliance with this operating permit condition assures compliance with the conditions of that approval.]

IV. RECORDKEEPING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The permittee shall maintain records of the hours of operation for each internal combustion engine.
- (b) The records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

[Paragraph (a) of this condition is derived from the July 25, 2016, RFD approval and compliance with this operating permit condition assures compliance with the conditions of that approval.]

[This record keeping condition will provide necessary the records to assure that the Department will be able to determine that the facility does not exceed the NOx emissions thresholds which are 100 pounds per hour; 1,000 pounds per day; 2.75 tons per ozone season; and 6.6 tons per year on a 12 month rolling basis for all 'plan approval exempt' engines on site combined.]

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.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall operate and maintain this source in accordance with the manufacturer's specifications.

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. ***



Group Name: 07 - NESHAP 63-ZZZZ FOR EMERGENCY RICE

Group Description: Requirements from 40 CFR Part 63 Subpart ZZZZ, NESHAP for Emergency Stationary RICE

Sources included in this group

ID	Name
301	330 HP DETROIT DIESEL-FUELED EMERGENCY GENERATOR #1
302	725 HP CATERPILLAR D348 DIESEL FUELED EMERGENCY GENERATOR #2

I. RESTRICTIONS.

Operation Hours Restriction(s).

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

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

How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requiremen

- (a) [Paragraph 63.6640(a) is printed under WORK PRACTICE REQUIREMENTS in this section of permit.]
- (b) [Paragraph 63.6640(b) is printed under REPORTING REQUIREMENTS in this section of permit.]
- (c) (d) [Paragraphs 63.6640(c) through (d) are not applicable to this source.]
- (e) [Paragraph 63.6640(e) is printed under REPORTING REQUIREMENTS in this section of permit.]
- (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 nonemergency 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) [Paragraphs 63.6640(f)(2)(ii)-(iii) were vacated on May 11, 2015.]
 - (3) [Paragraph 63.6640(f)(3) is not applicable to this 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 nonemergency 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) (ii) [Paragraphs 63.6640(f)(4)(i)-(ii) are not applicable to this source.]



[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 6700, Jan. 30, 2013]

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.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]

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

What records must I keep?

- (a) (c) [Paragraphs (a) through (c) of 40 CFR §63.6655 are not applicable to this source.]
- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (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) [Not applicable.]
 - (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 §63.6640(f)(2)(ii) or (iii) or §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) [Not applicable]
- (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]

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6660]

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

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

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).



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

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

From 63.10(b)(1):

(b) General recordkeeping requirements. (1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

[59 FR 12430, Mar. 16, 1994, as amended at 64 FR 7468, Feb. 12, 1999; 67 FR 16604, Apr. 5, 2002; 68 FR 32601, May 30, 2003; 69 FR 21752, Apr. 22, 2004; 71 FR 20455, Apr. 20, 2006; 85 FR 73886, Nov. 19, 2020]

V. REPORTING REQUIREMENTS.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

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

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

- (a) [Paragraph 63.6640(a) is printed under WORK PRACTICE REQUIREMENTS in this section of permit.]
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. [Reference to Tables 1a and 1b, Tables 2a and 2b, Table 2c and references to performance testing in the regulation, which are not applicable to this source, are omitted from this paragraph.]
- (c) (d) [Paragraphs 63.6640(c) and (d) are not applicable to this source.]
- (e) You must report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. [Non-applicable text in paragraph 63.6640(e) of the regulation is omitted from this paragraph.]

[Refer to regulation for Table 8 to 40 CFR Part 63 Subpart ZZZZ for General Subpart A Provisions applicable to subpart ZZZZ. Ongoing required Subpart A provisions for this source include:

- 63.6(e)(1)(i), the duty to minimize emissions as referenced in 63.6675 under the definition of 'Deviation' printed in the condition for 63.6675 under ADDITIONAL REQUIREMENTS in this source group; and
- 63.10(b)(1), the recordkeeping as referenced in 63.6660(b) printed in the condition for 63.6660 under RECORDKEEPING REQUIREMENTS in this source group.]
- (f) [Paragraph 63.6640(f) is printed under RESTRICTIONS in this section of permit.]

[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 6700, Jan. 30, 2013]

VI. WORK PRACTICE REQUIREMENTS.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63 Subpart ZZZZ Table 2d]
Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines



Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

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

[Category 4 applies. Non-applicable text and non-applicable categories are omitted.]

4. For each Emergency stationary CI [Compression Ignition engine] RICE (See note 2.),

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; (see note 1)
- 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.

Notes:

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

[75 FR page 9688, Mar. 3, 2010; 75 FR page 51595, Aug. 20, 2010; 78 FR 6700, Jan. 30, 2013]

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63 Subpart ZZZZ Table 6]

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

Table 6 to Subpart ZZZZ of Part 63.-- Continuous Compliance With Emission Limitations and Operating Limitations

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

[Category 9 of Table 6 to Part 63 Subpart ZZZZ applies. Applicable requirements from Table 6 are included here. Non-applicable text from Table 6 is omitted.]

For each existing emergency stationary RICE located at an area source of HAP, complying with the Work or Management practices requirement, you must demonstrate continuous compliance by . . .

- i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- 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.

[76 FR 12870, Mar. 9, 2011; 78 FR 6700, Jan. 30, 2013]

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]

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

What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing



stationary RICE located at an area source of HAP emissions?

[References in regulation to §63.6620 and Table 4 in introductory text of §63.6603 is not applicable to this source and is omitted from this paragraph.]

- (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 that apply to you. [The reference in regulation to Table 2b in 63.6603(a) which is not applicable to this source is omitted from this paragraph.]
- (b) (f) [Paragraphs 63.6603 (b) through (f) are not applicable to this source.]

[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]

008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]

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

What are my general requirements for complying with this subpart?

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

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

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]

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

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

- (a) (d) [These paragraphs of the regulation are not applicable.]
- (e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and aftertreatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
 - (1) (2) [Not applicable];
 - (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
 - (4) (10) [Not applicable].
- (f) If you own or operate 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. [Non-applicable text omitted from this paragraph.]
- (g) [This paragraph of the regulation is not applicable].
- (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. [Tables 1a, 2a, 2c do not apply to the emergency engine of this source; Category 5 of Table 2d applies.]



(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) [Not applicable]

[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 6700, Jan. 30, 2013]

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

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

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

- (a) You must demonstrate continuous compliance with each requirement in Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart. [Text in the regulation 63.6640(a) which is not applicable to this source is omitted from this paragraph.] [Table 6 is printed in this section of permit.]
- (b) [Paragraph 63.6640(b) is printed under REPORTING REQUIREMENTS in this section of permit.]
- (c) (d) [Paragraphs 63.6640(c) and (d) are not applicable to this source.]
- (e) [Paragraph 63.6640(e) is printed under REPORTING REQUIREMENTS in this section of permit.]
- (f) [Paragraph 63.6640(f) is printed under RESTRICTIONS in this section of permit.]

[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 6700, Jan. 30, 2013]

VII. ADDITIONAL REQUIREMENTS.

011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]

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

What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. [Non-applicable text omitted from this paragraph.]

[Refer to regulation for Table 8 to 40 CFR Part 63 Subpart ZZZZ.]

[75 FR 9678, Mar. 3, 2010]

012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6670]

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

Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal



agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
 - (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).
 - (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
 - (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
 - (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
- (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

[Source: 69 FR 33506, June 15, 2004]

013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6675]

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

What definitions apply to this subpart?

[Selected definitions from §63.6675 are printed below. Refer to regulation for remaining definitions applicable to 40 CFR Part 63 Subpart ZZZZ.]

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.
 - (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).



(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(2)(ii) or (iii) and § 63.6640(f)(4)(i) or (ii).

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control 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.

Subpart means 40 CFR part 63, subpart ZZZZ.

[Source: 69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6700, Jan. 30, 2013]

*** Permit Shield in Effect. ***



Group Name: 08 - PLAN APPROVAL 10-284G FOR ENGINES

Group Description: Requirements from Plan Approval 10-0284G for Diesel Engines

Sources included in this group

ID	Name				
111 MORBARK GRINDER DIESEL ENGINE, CAT C13, 440 BHP S/N LGK00651					
112	112 VERMEER WOOD GRINDER DIESEL ENG. 630 HP CAT C16 S/N BFM01160				
113	113 ROCK CRUSHER DIESEL ENGINE, CAT C9, 350 BHP S/N MBD05626				
114	114 NEW DIESEL TIPPER #1 ENG. JOHN DEERE MODEL:JD6068HF285 180HP				
115	OLD DIESEL TIPPER #2 ENG. JOHN DEERE MODEL:JD6068HF286 180HP				

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) Emissions of air contaminates from Source 111 into the atmosphere shall not exceed the following:
 - (1) NOx: 2.86 g/bhp-hr, 2.75 tpy*
 - (2) CO: 1.35 g/bhp-hr, 1.30 tpy*
 - *as calculated from a twelve month rolling total
- (b) Emissions of air contaminates from Source 112 into the atmosphere shall not exceed the following:
 - (1) NOx: 4.95 g/bhp-hr, 6.88 tpy*
 - (2) CO: 0.19 g/bhp-hr, 0.27 tpy*
 - *as calculated from a twelve month rolling total
- (c) Emissions of air contaminates from Source 113 into the atmosphere shall not exceed the following:
 - (1) NOx: 2.52 g/bhp-hr, 1.92 tpy*
 - (2) CO: 1.20 g/bhp-hr, 0.97 tpy*
 - *as calculated from a twelve month rolling total
- (d) Emissions of air contaminates from Source 114 into the atmosphere shall not exceed the following:
 - (1) NOx: 2.61 g/bhp-hr, 2.15 tpy*
 - (2) CO: 1.19 g/bhp-hr, 1.03 tpy*
 - *as calculated from a twelve month rolling total
- (e) Emissions of air contaminates from Source 115 into the atmosphere shall not exceed the following:
 - (1) NOx: 2.61 g/bhp-hr, 2.15 tpy*
 - (2) CO: 1.19 g/bhp-hr, 1.03 tpy*
 - *as calculated from a twelve month rolling total

[From Plan Approval 10-284G]

Operation Hours Restriction(s).

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) Sources 111, 112, and 113, each shall not operate for more than 2,000 hours in any 12 consecutive month period.
- (b) Sources 114 and 115 each shall not operate for more than 4,380 hours in any 12 consecutive month period.

[From Plan Approval 10-284G]

II. TESTING REQUIREMENTS.

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Department reserves the right to require testing for any of these sources to verify compliance with the emission limits.



[From Plan Approval 10-284G]

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.

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) All maintenance and testing performed on each engine shall be recorded in a log. This record shall, at a minimum, include:
 - (1) Time and date of maintenance / testing,
 - (2) Name, title, and signature of the person performing the maintenance / testing,
 - (3) A detailed description of the maintenance / testing, and
 - (4) Any corrective action taken as result of the maintenance / testing.
- (b) Source locational information shall be recorded in a log. This record shall, at a minimum, include:
 - (1) The time and date of the source's departure,
 - (2) The source's destination,
 - (3) The time and date of the source's arrival onsite,
 - (4) Name, title, and signature of the person receiving the source onsite, and
 - (5) Name, title, and signature of the person receiving the source offsite.

[From Plan Approval 10-284G]

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The owner or operator of the facility shall keep records which clearly verify compliance with the emission restrictions for Sources 111-115.
- (b) The owner or operator shall maintain comprehensive accurate records of the following.
 - (1) the number of hours per month that each engine operated,
 - (2) the amount of fuel that is used per month in each engine,
- (3) records to demonstrate that all performance testing and periodic monitoring requirements are fulfilled [as applicable],
 - (4) and the date testing was performed for each engine [as applicable].

[From Plan Approval 10-284G]

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.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The engines shall be operated and maintained as prescribed by the manufacturer. A copy of the engine's operational and maintenance literature shall be readily available onsite and shall be provided to the Department upon request.
- (b) A non-resettable hour meter shall be installed on each engine.

[From Plan Approval 10-284G]



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. ***



Group Name: 09 - PLAN APPROVAL 10-284H FOR LFG RICE

Group Description: Requirements from Plan Approval 10-0284H for Landfill Gas Fueled Generators

Sources included in this group

ID Name				
116 GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP				
117 GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP				

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) This source is subject to the provisions of Plan Approval 10-284H, the conditions of which are incorporated into this Title V permit. The extension of plan approval 10-284H will expire August 31, 2021. Any violation of the plan approval would also be deemed a violation of this Title V Operating Permit.
- (b) This incorporation of this plan approval into this Title V Operating Permit shall not be construed to require the permittee to implement the project that is the subject of the plan approval, unless an enforcement action, regulation or statute independently requires otherwise.
- (c) This Title V permit shall not be construed to provide any independent, ongoing authority for the construction or operation of the project that is the subject of Plan Approval 10-284H, unless and until the permittee applies for, and is granted, a future administrative amendment to this Title V permit for that project, once it has been determined by the Department to have completed its respective temporary operation phase under the authority of that plan approval.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) Emissions of air contaminates from each source (Sources 116 and 117) into the atmosphere shall not exceed the following:
 - (1) NOx: 0.54 g/bhp-hr, 2.34 lb/hr, 9.36 tpy*
 - (2) CO: 2.50 g/bhp-hr, 10.84 lb/hr, 43.35 tpy*
 - (3) NMHC: 0.40 g/bhp-hr, 1.73 lb/hr, 6.93 tpy* [non-methane hydrocarbon]
 - (4) HCHO: 0.21 g/bhp-hr, 0.89 lb/hr, 3.56 tpy* [formaldehyde] *as calculated from a twelve consecutive month rolling total
- (b) The permittee may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:
 - (1) Equal to or greater than 10% for a period or periods aggregating more than 3 minutes in any 1 hour.
 - (2) Equal to or greater than 10% for a period or periods aggregating more than 6 minutes during startup and shutdown.

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #001.]

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

In accordance with the best available technology requirements of 25 Pa. Code Section 127.1 and 127.12, the non methane organic hydrocarbon (NMOHC) emissions from this engine shall not exceed 20 ppmv as hexane corrected to 3% oxygen or achieve a destruction efficiency of 98% by weight.

[Compliance with this condition assures compliance with the provisions of 40 CFR Part 60 Subpart WWW]

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #002.]



Operation Hours Restriction(s).

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The engines each shall operate no more than 8,000 hours in any 12 consecutive month period.

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #005.]

II. TESTING REQUIREMENTS.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) Within 60 days after achieving the rated brake horsepower, but no later than 180 days after initial start-up of each engine, and at a minimum of once during each 8,760 hours of operation thereafter, the permittee shall perform stack testing on each generator engine for NOx, CO, non-methane hydrocarbon (NMHC), and Formaldehyde (HCHO). Engine testing load conditions shall be representative to within 10% of maximum load design capacity or to within 10% of the maximum permitted operating load as proposed by the applicant.
- (1) At least 90 calendar days prior to commencing an emission testing program required by this Plan Approval, a Test Protocol shall be submitted to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office for review and approval. The Test Protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual. The emissions testing shall not commence prior to receipt of a protocol acceptance letter from the Department.

[Paragraph (a)(1) is modified in this Title V operating permit from the plan approval condition to reflect that the DEP Division of Source Testing needs to receive test protocols no less than 90 days prior to testing in order to assure that the protocol is reviewed in time so that the permittee does not potentially miss the testing deadline.]

[The Source Testing Manual is PA DEP document number 274-0300-002. A Copy can be obtained at this web address: http://www.depgreenport.state.pa.us/elibrary/GetFolder/PolderID=4563]

- (2) At least 15 calendar days prior to commencing an emission testing program required by this Plan Approval, written notification of the date and time of testing shall be provided to the Department's appropriate Regional Office. Notification, in writing, shall also be sent to the Department's Bureau of Air Quality, Division of Source Testing and Monitoring. The Department is under no obligation to accept the results of any testing performed without adequate advance written notice to the Department of such testing. Notification shall also be sent to the Department's Division of Source Testing and Monitoring so that an observer may be present.
- (3) Within 15 calendar days after completion of the on-site testing portion of an emission test program required by this Plan Approval, 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 at RA epstacktesting@state.pa.us and the appropriate Regional Office indicating the completion date of the on-site testing.
- (4) A complete test report shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an emission test program required by this Plan Approval.
- (5) 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 non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
- (i) A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings;
 - (ii) Permit number(s) and condition(s) which are the basis for the evaluation;
 - (iii) Summary of results with respect to each applicable permit condition; and
 - (iv) Statement of compliance or non-compliance with each applicable permit condition.
- (b) All submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

[The Source Testing Manual is PA DEP document number 274-0300-002. A Copy can be obtained at this web address:



http://www.depgreenport.state.pa.us/elibrary/GetFolder?FolderID=4563]

- (c) All testing shall be performed in accordance with any applicable federal regulations (such as New Source performance Standards, Subpart I); 25 Pa. Code, Chapter 139; and the current revision of the Department's Source Testing Manual or an alternative test method as approved by the Department. The following federal reference methods or alternative test method as approved by the Department shall be used to demonstrate compliance:
 - 40 CFR 60, Appendix A, Method 7E shall be used to determine the NOx emissions.
 - 40 CFR 60, Appendix A, Method 10 shall be used to determine the CO emissions.
 - 40 CFR 60, Appendix A, Method 18 shall be used to determine the VOC emissions.
 - 40 CFR Part 63 Appendix A, Method 320 shall be used to determine the HCHO emissions.
- (d) All submittals, except notifications, shall be accomplished through PSIMS*Online available through https://www.depgreenport.state.pa.us/ecomm/Login.jsp. If internet submittal is not feasible, 1 copy of the submittal shall be sent to the appropriate Pennsylvania Department of Environmental Protection Regional Office and to the attention of the Department's Bureau of Air Quality, Division of Source Testing and Monitoring, 400 Market Street, 12th Floor Rachel Carson State Office Building, Harrisburg, PA 17105-8468 with deadlines verified through document postmarks.
- (e) The owner or operator shall ensure that all applicable federal reporting requirements are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between federal and state laws and regulation, the permittee shall comply with the most stringent provision, term, condition, method or rule.
- (f) If, at any time, the Department has reason to believe that the air contaminant emissions from the exhaust of SI ICE(s) authorized under this Plan Approval are, or may be, in excess of any applicable air contaminant emission limitation, the owner or operator shall conduct stack tests as are deemed necessary by the Department to determine the actual air contaminant emission rate. The owner or operator shall perform any such testing in accordance with the applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) as well as in accordance with any additional requirements or conditions established by the Department at the time the owner or operator is notified, in writing, of the need to conduct testing.
- (g) Every 2,500 hours of operation and no sooner than 45 calendar days from the previous test, the permittee shall perform periodic monitoring for NOx and CO emissions upon each of the respective engines. A Department-approved test that has been performed within 45 calendar days prior to the scheduled periodic monitoring may be used in lieu of the periodic monitoring for that time period. A portable gas analyzer may be used to satisfy the requirements of this condition utilizing 3 test runs of 20 minutes for each test run. The Department may alter the frequency of portable analyzer tests based on the test results. The frequency of portable gas analyzer tests may be altered only with the Department's prior written approval. The portable gas analyzer shall be used and maintained according to the manufacturer's specifications and the procedures specified in ASTM D6522 or equivalent procedures, as approved by the Department.
- (h) Within thirty (30) calendar days after the completion of periodic monitoring, the owner or operator shall submit the results to the appropriate DEP Regional Office. The Department reserves the right to require source tests in accordance with EPA reference methods should the data from the portable analyzer warrant such tests.

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #003.]

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.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) All maintenance and testing performed on the engine shall be recorded in a log. This record shall, at a minimum, include:
 - (1) Time and date of maintenance / testing;



- (2) Name, title, and signature of the person performing the maintenance / testing;
- (3) A detailed description of the maintenance / testing;
- (4) Any corrective action taken as result of the maintenance / testing.
- (b) The owner or operator of the facility shall keep records which clearly verify compliance with the emission restrictions of this plan approval.
- (c) The owner or operator shall maintain comprehensive accurate records of the following:
 - (1) the number of hours per month that each engine operated;
 - (2) the amount of each fuel used per day and month in each engine;
 - (3) records which demonstrate that all performance testing and periodic monitoring requirements are fulfilled;
 - (4) the date testing was performed for each engine.

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #004.]

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.

007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

- (a) The engines shall be operated and maintained as prescribed by the manufacturer. A copy of the engine's operational and maintenance literature shall be readily available onsite and shall be provided to the Department upon request.
- (b) A non-resettable hour meter shall be installed on each engine.
- (c) Fuel metering devices shall be installed such that the volume of natural gas (gas supplied from the utility pipeline) and land fill gas combusted by each engine is measured.

[From plan approval 10-284H, Section D, Sources 117 & 118, Condition #005.]

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. ***



Group Name: 10 - 60-JJJJ FOR NON-EMERG LFG FUEL ICE

Group Description: Requirements of 40 CFR Part 60 Subpart JJJJ for non-emergency landfill gas fueled ICE

Sources included in this group

ID	Name			
116 GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP				
117	GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP			

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60 Subpart JJJJ Table 1]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
Table 1 to Subpart JJJJ of Part 60.--

[Applicable categories of Table 1 to Subpart JJJJ are printed below. Non-applicable categories are omitted from this permit condition.]

The standards listed in Table 1 for Landfill/Digester Gas engine, HP > 500, manufactured after 7/1/2021 apply to this source.

- (a) [The NOx standard of 2.0 g/hp-hr from Table 1 is streamlined out of the operating permit in favor of the more stringent standards from plan approval 10-284H printed in Group 7 of Section E of this permit.]
- (b) [The CO standard of 5.0 g/hp-hr from Table 1 is streamlined out of the operating permit in favor of the more stringent standards from plan approval 10-284H printed in Group 7 of Section E of this permit.]
- (c) VOC: 1.0 g/hp-hr; (See Note d)
- (d) NOx: 150 ppmvd at 15% O2
- (e) CO: 610 ppmvd at 15% O2
- (f) VOC: 80 ppmvd at 15% O2; (See Note d)

NOTE d: For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included. [Note d to Table 1 of Subpart JJJJ applies to VOC emission standards for all sources subject to the standards of Table 1.]

[Source: 76 FR 37975, June 28, 2011]

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

- (a) (d) [Not applicable]
- (e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
- (f) (h) [Not applicable.]

[Source: 73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]



003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4234]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

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

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

[Source: 73 FR 3591, Jan. 18, 2008]

II. TESTING REQUIREMENTS.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60 Subpart JJJJ Table 2] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
Table 2 to Subpart JJJJ of Part 60.--

Refer to regulation for Table 2 of 40 CFR Part 60 Subpart JJJJ for the requirements for performing performance tests.

- # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]
 Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?
- (a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.
- (1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.
- (2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.
 - (i) (ii) [Not applicable]
- (iii) If you are an owner or operator of a stationary SI 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 within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
- (b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
- (1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
- (2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.
 - (i) [Not applicable]
- (ii) If you are an owner or operator of a stationary SI 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 and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

- (c) (d) [Not applicable.]
- (e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.
- (f) (i) [Not applicable]

[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011; 78 FR 6697, Jan. 30, 2013]

006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4244]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

- (a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.
- (b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
- (c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- (d) To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 1 of this section.

[Refer to regulation 40 CFR 60.4244(d) for equation 1.]

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section.

[Refer to regulation 40 CFR 60.4244(e) for equation 2.]

(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

[Refer to regulation 40 CFR 60.4244(f) for equation 3.]

(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

[Refer to regulation 40 CFR 60.4244(g) for equations 4, 5, 6.]



[Source: 73 FR 3591, Jan. 18, 2008]

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.

007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
 - (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
- (b) [Paragraph (b) of the regulation is not applicable to non-emergency engines.]
- (c) (d) [Paragraphs (c) and (d) are printed under REPORTING REQUIREMENTS.]
- (e) [Paragraph (b) of the regulation is not applicable to non-emergency engines.]

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013; 81 FR 59809, Aug. 30, 2016]

V. REPORTING REQUIREMENTS.

008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a) [Paragraph (a) is printed under RECORDKEEPING REQUIREMENTS.]
- (b) [Paragraph (b) of the regulation is not applicable to non-emergency engines.
- (c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.
 - (1) Name and address of the owner or operator;
 - (2) The address of the affected source:



- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (4) Emission control equipment; and
 - (5) Fuel used.
- (d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.
- (e) [Paragraph (b) of the regulation is not applicable to non-emergency engines.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 78 FR 6697, Jan. 30, 2013; 81 FR 59809, Aug. 30, 2016]

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.

009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60 Subpart JJJJ Table 3] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Table 3 to Subpart JJJJ of Part 60.--

[As stated in §60.4246, you must comply with the following applicable General Provisions]

General	1	Applies	
Provisions		to	
Citation	Subject of Citation	Subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4248.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4245.
§60.8	Performance tests	Yes	Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ.
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requiremen	ts Yes	Requirements are specified in subpart JJJJ.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	No	
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	



[Source: 73 FR 3591, Jan. 18, 2008]

010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4236] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What is the deadline for importing or installing stationary SI ICE produced in the previous model year?

- (a) [Paragraph (a) is not applicable to engines < 500 hp.]
- (b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.
- (c) [Paragraph (c) is not applicable to non-emergency engines.]
- (d) [Paragraph (c) is not applicable to these engines.]
- (e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

[Source: 73 FR 3591, Jan. 18, 2008]

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4246] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What parts of the General Provisions apply to me?

Table 3 to this subpart shows which parts of the General Provisions in § §60.1 through 60.19 apply to you.

[Refer to regulation for Table 3 of 40 CFR Part 60 Subpart JJJJ.]

012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4248] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines What definitions apply to this subpart?

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.

[Selected definitions from 40 CFR § 60.4248 are printed below. Refer to regulation for remaining definitions in subpart JJJJ.]

Certified stationary internal combustion engine means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO2).

Installed means the engine is placed and secured at the location where it is intended to be operated.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO2.

Maximum engine power means maximum engine power as defined in 40 CFR 1048.801.

Subpart means 40 CFR part 60, subpart JJJJ.

[73 FR 3591, Jan. 18, 2008, as amended at 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011; 78 FR 6698, Jan. 30, 2013]

SECTION E.





*** Permit Shield in Effect. ***

Source Group Restrictions.

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SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.





2.700 Tons/Yr



SECTION G. Emission Restriction Summary.

Source Id	Source Description	or	
031	WASTEWATER TR	REATMENT PLANT STEAM BOILER	
Emission Limit			Pollutant
4.000	Lbs/MMBTU	Over any 1-hour period [25 Pa Code 123.22]	SOX
0.400	Lbs/MMBTU	[25 Pa Code 123.11]	TSP
032	PROCESS HEAT,	2 BOILERS AT HIGH BTU PLANT, 1 BOILER AT W	WTP

Emission Limit			Pollutant
4.000	Lbs/MMBTU	Over any 1-hour period [25 Pa Code 123.22]	SOX
0.400	Lbs/MMBTU	[25 Pa Code 123.11]	TSP

101	MUNICIPAL WASTE LANDFILL			
Emission Limit			Pollutant	
500.000	PPMV	above background at the surface of the landfill [40 CFR 60.763(d)]	Methane	
20.000	PPMV	dry basis as hexane, for the flare [From plan approval 10-284C]	NMOC	
500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX	
0.020	gr/DRY FT3	For the enclosed flare [From plan approval 10-284C]	TSP	

103	LFG PROCESSING PLANT (4,000 SCFM) (AKA HIGH BTU PLANT)
100	Li O i 1000000110 i Li 111 (1,000 001 m) (110 1 10 1 10 1 11 11 1)

plan approval 10-284C]

Emission Limit			Pollutant	
0.020	gr/DRY FT3	[Plan approvals 10-284D, 10-284E]	TSP	
20.000	PPMV	[Plan approvals 10-284D, 10-284E]	VOC	

From petroleum contaminated soils [from VOC

104 335 KW LANDFILL GAS ENGINE/GENERATOR

Emission Limit			Pollutant
500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX
0.040	gr/DRY FT3	[25 Pa Code 123.13]	TSP

106 67 HP DUETZ DIESEL ENGINE (ORIG EXTEC 5000S SCREEN PLANT)

Emissi	ion Limit		Pollutant		
	500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX	
	0.040	gr/DRY FT3	[25 Pa Code 123.13]	TSP	

110 67 HP DUETZ DIESEL ENGINE (2ND EXTEC 5000S PORTABLE SCREEN)

Emission Limit		Pollutant	
500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX
0.040	gr/DRY FT3	[25 Pa Code 123.13]	TSP

111 MORBARK GRINDER DIESEL ENGINE, CAT C13, 440 BHP S/N LGK00651

Emission Limit			Pollutant
1.300	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	СО
1.350	GRAMS/HP-Hr	[Plan approval 10-284G]	CO
2.750	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	NOX





SECTION G. Emission Restriction Summary.

2.860 GRAMS/HP-Hr	[Plan approval 10-284G]	NOX
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112 VERMEER WOOD GRINDER DIESEL ENG. 630 HP CAT C16 S/N BFM01160

Emission Limit	ssion Limit		Pollutant
0.190	GRAMS/HP-Hr	[Plan approval 10-284G]	CO
0.270	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	CO
4.950	GRAMS/HP-Hr	[Plan approval 10-284G]	NOX
6.880	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	NOX

113 ROCK CRUSHER DIESEL ENGINE, CAT C9, 350 BHP S/N MBD05626

Emission Limit			Pollutant
0.970	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	CO
1.200	GRAMS/HP-Hr	[Plan approval 10-284G]	CO
1.920	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	NOX
2.520	GRAMS/HP-Hr	[Plan approval 10-284G]	NOX

114 NEW DIESEL TIPPER #1 ENG. JOHN DEERE MODEL:JD6068HF285 180HP

Emission Limit			Pollutant
1.030	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	CO
1.190	GRAMS/HP-Hr	[Plan approval 10-284G]	CO
2.150	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	NOX
2.610	GRAMS/HP-Hr	[Plan approval 10-284G]	NOX

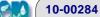
115 OLD DIESEL TIPPER #2 ENG. JOHN DEERE MODEL:JD6068HF286 180HP

Emission Limit			Pollutant
1.030	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	CO
1.190	GRAMS/HP-Hr	[Plan approval 10-284G]	CO
2.150	Tons/Yr	based on a 12-month rolling total [Plan approval 10-284G]	NOX
2.610	GRAMS/HP-Hr	[Plan approval 10-284G]	NOX

116 GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP

Emission Limit			Pollutant
2.500	GRAMS/HP-Hr	[Plan approval 10-284H]	CO
10.840	Lbs/Hr	[Plan approval 10-284H]	CO
43.350	Tons/Hr	[Plan approval 10-284H]	CO
610.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	CO
0.210	GRAMS/HP-Hr	[Plan approval 10-284H]	Formaldehyde
0.890	Lbs/Hr	[Plan approval 10-284H]	Formaldehyde







SECTION G. Emission Restriction Summary.

Source Id Source Description

3.560	Tons/Yr	[Plan approval 10-284H]	Formaldehyde
0.400	GRAMS/HP-Hr	[Plan approval 10-284H]	NMHC
1.730	Lbs/Hr	[Plan approval 10-284H]	NMHC
6.930	Tons/Yr	[Plan approval 10-284H]	NMHC
0.540	GRAMS/HP-Hr	[Plan approval 10-284H]	NOX
2.340	Lbs/Hr	[Plan approval 10-284H]	NOX
9.360	Tons/Yr	[Plan approval 10-284H]	NOX
150.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	NOX
1.000	GRAMS/HP-Hr	[Table 1 of 40 CFR Part 60 Subpart JJJJ]	VOC
80.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	VOC

117 GENERATOR ENGINE, GE JENBACHER JGS420, 1,966 BHP

nission Limit			Pollutant
2.500	GRAMS/HP-Hr	[Plan approval 10-284H]	CO
10.840	Lbs/Hr	[Plan approval 10-284H]	CO
43.350	Tons/Hr	[Plan approval 10-284H]	CO
610.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	СО
0.210	GRAMS/HP-Hr	[Plan approval 10-284H]	Formaldehyde
0.890	Lbs/Hr	[Plan approval 10-284H]	Formaldehyde
3.560	Tons/Yr	[Plan approval 10-284H]	Formaldehyde
0.400	GRAMS/HP-Hr	[Plan approval 10-284H]	NMHC
1.730	Lbs/Hr	[Plan approval 10-284H]	NMHC
6.930	Tons/Yr	[Plan approval 10-284H]	NMHC
0.540	GRAMS/HP-Hr	[Plan approval 10-284H]	NOX
2.340	Lbs/Hr	[Plan approval 10-284H]	NOX
9.360	Tons/Yr	[Plan approval 10-284H]	NOX
150.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	NOX
1.000	GRAMS/HP-Hr	[Table 1 of 40 CFR Part 60 Subpart JJJJ]	VOC
80.000	PPMV	Dry Basis at 15% O2 [Table 1 of 40 CFR Part 60 Subpart JJJJ]	VOC

301 330 HP DETROIT DIESEL-FUELED EMERGENCY GENERATOR #1

Emission Limit			Pollutant
500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX
0.040	gr/DRY FT3	[25 Pa Code 123.13]	TSP

302 725 HP CATERPILLAR D348 DIESEL FUELED EMERGENCY GENERATOR #2

Emission Limit			Pollutant	
500.000	PPMV	dry basis [25 Pa Code 123.21]	SOX	
0.040	gr/DRY FT3	[25 Pa Code 123.13]	TSP	

10-00284

SENECA LANDFILL INC/SENECA

SECTION G. Emission Restriction Summary.

Site Emission Restriction Summary

Emission Limit Pollutant



(a) The facility location address is 421 Hartmann Road, Evans City, PA 16033. This facility is located in an area that crosses municipality lines: south Lancaster Township and north Jackson Township.

This is a Title V facility under the 25 Pa. Code §121.1(iv) definition because the EPA promulgated a rule regulating municipal solid waste landfills under Title V of the Clean Air Act. This facility pays annual maintenance fees for the Title V operating permit, but does not pay emission fees.

The following eFACTS ID's are assigned to this facility for this permit issuance:

Permit number: 10-00284

Records Management System (RMS) Facility Name: Seneca Ldfl

RMS ID: 42300 APS ID: 346024 Master Auth ID: 354830

Client ID: 25747 Site ID: 524239

Primary Facility (PF) ID: 510553

- (b) The Capacity/Throughput numbers listed in Section A, the Site Inventory List, and provided in Section D of this permit for individual sources are for informational purposes only and are not to be considered enforceable limits. Enforceable emission limits are listed in the Restrictions section for each source and source group and in Section C. The emission limitations contained in Section G of this permit are for informational purposes and are not to be considered as enforceable limits.
- (c) Abbreviations used in this permit:

Schematics:

FML: Fuel material location CU: Combustion Unit

PROC: Process
CNTL: Control device

STAC: Stack. The stack can represent either the emission point or fugitive emissions in a permit map.

Pollutants:

CO: Carbon Monoxide
NOx: Nitrogen Oxides
SOx: Sulfur Oxides

TSP: Total Suspended Particulate
VOC: Volatile Organic Compounds
HAP: Hazardous Air Pollutant

Source ID: Department assigned ID number for the source Source Name: Department assigned name for the source

Capacity/Throughput: The maximum rated capacity or throughput for the source. The maximum rated capacity or throughput is not considered an enforceable limit. Enforceable limits are contained within the conditions of the permit.

Fuel/Material: The fuel/material assigned to SCC for the source

AIMS: Air Information Management System -- the DEP electronic database for permitting and emission reports

CAM: Compliance Assurance Monitoring (40 CFR Part 64)

CFR: Code of Federal Regulations

CI: Combustion Ignition

CMS: Continuous Monitoring System

Department: Pennsylvania Department of Environmental Protection (the DEP)

eFacts: Environmental Facility Application Compliance Tracking System -- the DEP electronic database for inspection reports

ICE: Internal Combustion Engine

ICI: Industrial, Commercial, and Institutional

LFG: Landfill Gas

NESHAP: National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63)

NSPS: New Source Performance Standards (40 CFR Part 60)

NWRO: Northwest Regional Office of PADEP

RFD: Request for Determination of Changes of Minor Significance & Exemption from plan approval.

RICE: Reciprocating Internal Combustion Engine



SCC: Source Classification Code as defined by EPA

SI: Spark Ignition

Source: An air contamination source (25 Pa. Code § 121.1).

(d) All reports, submittals, and other communications required by this permit shall be submitted to the following office. Web addresses for electronic submittals to this office are below.

Bureau of Air Quality
Department of Environmental Protection
230 Chestnut Street
Meadville, PA 16335
814-332-6940 (phone)
814-332-6121 (fax)
Office Hours 8 a.m. - 4 p.m.
800-541-2050 (after hours)

Spills and other emergencies should be reported immediately to DEP by telephone at 800-541-2050.

Submittals of Asbestos Abatements and Demolition/Renovation Notification Forms should be made via the Online Asbestos Notification System. Information and links are located at this web address:

https://www.dep.pa.gov/Business/Air/BAQ/BusinessTopics/Pages/Asbestos.aspx

Submittals of Annual emissions inventory, if required, must be made via the DEP's AES*Online secure website. Information and links are located at this web address:

https://www.dep.pa.gov/Business/Air/BAQ/BusinessTopics/Emission/Pages/default.aspx

Submittals pertaining to emissions testing (protocols, test results, etc.) must be made through PSIMS*Online at https://www.depgreenport.state.pa.us/ecomm/Login.jsp

The 15-day advance notifications of emissions testing dates shall be submitted directly to both:

- (1) the Protocol Reviewer at Central Office Division of Source Testing; and
- (2) to the Northwest Regional Office Air Quality Inspector. Telephone the Northwest Regional Office at 814-332-6940 to obtain the email address of the Air Quality Inspector.

Submittals of RFD's shall be made via the DEP's Greenport website at https://greenport.pa.gov

All other submittals to this office should be made via the DEP's OnBase electronic upload website at this web address: https://www.dep.pa.gov/DataandTools/Pages/Application-Form-Upload.aspx

- (e) The following sources/activities have been determined to be of minor significance with respect to emissions of regulated air pollutants and have no applicable emission, testing, monitoring, recordkeeping, or reporting requirements.
 - Diesel fuel storage tank;
 - Hydraulic oil storage tank;
 - Lubrication oil storage tank;
- a solar passive vent flare used to control emissions from 2 carbon tanks used in the high Btu process. The flare is only used 8 times per year so that the high Btu plant can continue to operate during carbon changes. The flare is expected to operate less than 4 hours per year and VOC emissions from the operation are expected to be less than 10 lbs/ year. This flare was RFD approved on August 22, 2017.
- (f) For the purpose of this permit, Source 101 (Municipal Solid Waste Landfill) consists of the following:
 - Area A is closed and capped;
 - Area B is closed and inactive;
 - Area C has some parts closed and capped and some parts active;
 - Area D is active:
 - Area E is under construction.

Landfill gas emissions are directed to the Landfill Gas Processing Plant (Source 103) for control and to be used as a fuel. When the LFG Processing Plant is shutdown, the LFG is diverted to the 6,000 cfm John Zink Ground Flare (C101) for control.



- (g) This operating permit No. 10-00284 was originally issued on March 08, 1999, effective on April 01, 1999, and expired on March 31, 2004. Permit No. 10-00284 was renewed on November 12, 2004 and will expire on October 31, 2009. Revision No. 1, issued on March 15, 2006, for the administrative amendment, to incorporate plan approval 10-284C (For 6000 CFM Enclosed Flare) conditions into the operating permit.
- (h) This permit was amended on January 8, 2008 to change the name of permit contact.
- (i) The following sources were added to the permit during the renewal review done in September of 2009.
 - 104 335 kw landfill gas engine/generator
 - 105 350 HP diesel engine
 - 107 Parts washer
 - 108 portable nonmetallic mineral processing plant (2)
 - 109 525 HP diesel engine
- (j) Source 110 was exempted from plan approval on February 3, 2010. This was done through an RFD that was received at the department on October 20, 2009.
- (k) This permit was reissued on February 18, 2010. It will expire on January 31, 2015.
- (I) Source 102 (Wastewater Treatment Plant) (WWTP) was modified in August of 2009. The anaerobic tower was taken out of service and the WWTP Anaerobic Tank Flare (CO2) was removed. Due to this change the determination was made that this was no longer a source of air emissions. Therefore, this source has been removed from the permit with the 2015 issuance. An process flow diagram for the WWTP with all the equipment listed was received from the permittee on 6/15/2021. Components of Source 102 (Wastewater Treatment Plant) include, but is not limited to, the following.
 - Two 425,000 gallon leachate pre-treatment storage tanks with Carbon canister filters;
 - Two 425,000 gallon leachate post-treatment storage tanks;
 - pH adjustment reactor;
 - Aerobic bio-tower (2) with Carbon canister filters;
 - Flocculation compartment;
 - Econotreat #1 Reactor with Carbon canister filter;
 - Econotreat #2 Reactor;
 - · Carbon metals filter;
 - Filter press.
- (m) The following sources remain on site, but are removed from the permit at the 2015 renewal issuance since they have been out of service for more than one year and a reactivation / maintenance plan was not submitted to the Department. Each will require Department approval prior to operating again.
- Source 106, Duetz 67 hp diesel engine used to power the Extec 5000S 175 tph portable screening plant of Source 108 which was approved with the 3/13/2008 GP-3 issuance.
 - Source 109, 525 hp diesel engine used to power a wood grinder which was RFD approved on 8/13/2009.
- Source 110, Duetz 67 hp diesel engine used to power a second Extec 5000S 175 tph portable screening plant of Source 108 which was RFD approved on 2/3/2010.
- (n) Source 108 consists of the following sources.
- Extec model C-12 portable jaw crusher with conveyor output, rated at 175 tph (mfgd 6/07), powered by diesel engine Source 105.
- Extec model 5000S portable screening plant rated at 175 tph (mfgd 1990), powered by diesel engine Source 106. At the time of the 2015 renewal issuance, this screening plant has not been run in over 1 year and no reactivation / maintenance plan was submitted; it will require Department approval to operate again.
- Extec model 5000S portable screen rated at 175 tph added upon 2/3/2010 RFD approval, powered by diesel engine Source 110. At the time of the 2015 renewal issuance, this screening plant has not been run in over 1 year and no reactivation / maintenance plan was submitted; it will require Department approval to operate again.
- (o) This permit renewal, effective December 15, 2015, is issued on December 15, 2015.
- (p) This permit was administratively amended on July 23, 2018 to remove the comliance schedule which was completed and incorporate the requirements of Plan Approval 10-284G for Sources 111-115.
- (q) Source 032 consists of the following.



- two Weil-McLain boilers at the High BTU Plant rated at 220,000 BTU/hr each; and
- a Weil-McLain boiler at the WWTP rated at 750,000 BTU/hr.
- (r) This Title V operating permit renewal, effective August 25, 2021, is issued on August 25, 2021.





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