COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date:	June 4, 2019	Effective Date:	October 27, 2026
Revision Date:	October 27, 2026	Expiration Date:	October 27, 2027
Revision Type:	Modification		

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 construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval 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 plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 09-0210B

Federal Tax Id - Plant Code: 26-3468180-1

Owner Information

Name: WASTE MGMT OF FAIRLESS
Mailing Address: 1000 NEW FORD MILL RD
MORRISVILLE, PA 19067-3704

Plant Information

Plant: WASTE MGMT OF FAIRLESS/FAIRLESS LDFL
Location: 09 Bucks County 09002 Falls Township
SIC Code: 4953 Trans. & Utilities - Refuse Systems

Responsible Official

Name: ROBERT C JONES
Title: DIST MGR II
Phone: (215) 428 - 4390 Email: bjones5@wm.com

Plan Approval Contact Person

Name: ED P KUCOWSKI
Title: SITE ENGR
Phone: (215) 428 - 4350 Email: ekucowsk@wm.com

[Signature] _____
JILLIAN A. GALLAGHER, SOUTHEAST REGION AIR PROGRAM MANAGER

Plan Approval Description

A plan approval for the installation of three (3), 6,000 SCFM design capacity ultra low emission (ULE) flares to combust the landfill gas (LFG) collected from GROWS, GROWS North, and Fairless Landfills, and for the installation of two (2) related emergency generator engines (AUTH ID 1244758), and the following modifications:

(1) Modification to restrict LFG flow to the ULE flares to 5,000 scfm. AUTH ID 1394800.

(2) Modification to allow propane augmentation while combusting GROWS LFG. AUTH ID 1478655.

(3) Modification to install a hydrogen sulfide (H2S) treatment system to increase gas flow to the ULE flares. AUTH ID 1567867.

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

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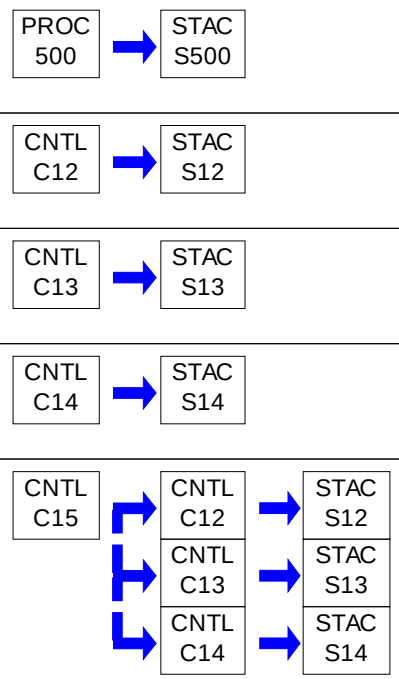
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SECTION A. Plan Approval Inventory List

Source ID	Source Name	Capacity/Throughput	Fuel/Material
500	EXEMPT EMER GENERATOR PRE-2006 ENGINES	N/A	Diesel Fuel
C12	ENCLOSED ULE FLARE 1	360.000 MCF/HR	LANDFILL GAS
C13	ENCLOSED ULE FLARE 2	360.000 MCF/HR	LANDFILL GAS
C14	ENCLOSED ULE FLARE 3	360.000 MCF/HR	LANDFILL GAS
C15	H2S TREATMENT SYSTEM		
S12	ENCLOSED ULE FLARE STACK 1 (C100)		
S13	ENCLOSED ULE FLARE STACK 2 (C120)		
S14	ENCLOSED ULE FLARE STACK 3 (C140)		
S500	EXEMPT EMERGENCY GENERATOR STACKS		

PERMIT MAPS



SECTION B. General Plan Approval Requirements

#001 [25 Pa. Code § 121.1]

Definitions

Words and terms that are not otherwise defined in this plan approval 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 § 127.12b (a) (b)]

Future Adoption of Requirements

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]

Plan Approval Temporary Operation

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

(a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.

(b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.

(c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 30 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.

(e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]

Content of Applications

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]

Public Records and Confidential Information

(a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.

(b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the

SECTION B. General Plan Approval Requirements

competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]

Plan Approval Terms and Conditions

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

(a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.

(b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:

(i) A justification for the extension,
(ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]

Transfer of Plan Approvals

(a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.

(b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.

(c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(a)(4) & 35 P.S. § 4008 & § 114 of the CAA]

Inspection and Entry

(a) 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.

(b) The permittee shall also allow the Department to have access at reasonable times to said sources and associated air cleaning devices with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act and regulations adopted under the act.

SECTION B. General Plan Approval Requirements

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

#009 [25 Pa. Code 127.13a]

Plan Approval Changes for Cause

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

(a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.

(b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(c) The permittee fails to submit a report required by this plan approval.

(d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]

Circumvention

(a) The permittee, 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 plan approval, 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.

#011 [25 Pa. Code § 127.12c]

Submissions

Each source shall submit reports to the Department containing the information the Department may prescribe relative to the operation and maintenance of the source.

Reports, test data, monitoring data, notifications shall be submitted to the:

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

#012 [25 Pa. Code § 127.12(a)(9) & 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 facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:

SECTION B. General Plan Approval Requirements

(1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency 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 the Environmental Protection Agency 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 plan approval 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.

#013 [25 Pa. Code § 121.7]

Prohibition of Air Pollution

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

#014 [25 Pa. Code § 127.25]

Compliance Requirement

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.

SECTION C. Site Level Plan Approval Requirements

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Emissions of criteria pollutants from the facility, which consist of three flares and two emergency generator engines, shall be limited to the following, based on a 12-month rolling sum:

NOx: 65.35 tons/year
SOx: 239.54 tons/year
CO: 143.55 tons/year
VOC: 21.55 tons/year

Facility-wide PM-10 and PM-2.5 emissions shall each be restricted to 100.0 tons/year.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall calculate and monitor emissions of the following criteria pollutants from the facility, which consist of the three enclosed ZULE flares and two emergency generator engines, on a monthly, and 12-month rolling basis:

- NOx
- CO
- SO2
- VOC

(b) The permittee shall calculate and monitor emissions of the following pollutants from each of the 3 landfill areas (GROWS, GROWS North, and Fairless), on a monthly, and 12-month rolling basis:

- PM-10
- PM-2.5

IV. RECORDKEEPING REQUIREMENTS.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall maintain records of the following criteria pollutants from the facility, which consist of the three enclosed ZULE flares and two emergency generator engines, on a monthly, and 12-month rolling basis:

- NOx
- CO
- SO2
- VOC

(b) The permittee shall maintain records of the sum of emissions of the following pollutants from each of the 3 landfill areas (GROWS, GROWS North, and Fairless), on a monthly, and 12-month rolling basis:

- PM-10
- PM-2.5

SECTION C. Site Level Plan Approval Requirements

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VII. ADDITIONAL REQUIREMENTS.

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall comply with all existing requirements of Title V Operating Permit No. 09-00007, and Title V Operating Permit 09-00210 unless specifically revised in this Plan Approval.

 # 005 [25 Pa. Code §127.208]

ERC use and transfer requirements.

(a) The permittee shall use and transfer Emission Reduction Credits (ERCs) in accordance with 25 Pa. Code § 127.208.

(b) This Plan Approval authorizes the transfer and use of the following 107.0 tons per year of NOx ERCs and the following 60.0 tons per year VOC ERCs for offset purposes for Plan Approval 09-0210B at Waste Management's facility, Falls Township, Bucks County, PA pursuant to 25 Pa. Code §127.208(2).

(i) The 107.0 tons per year NOx ERCs were generated by the shutdown of the HRE Sparow's Point facility, Baltimore County, MD on September 14, 2012.

The 60.0 tons per year VOC ERCs were generated by a shutdown of the Quad Graphics, Inc Atglen Pant, West Sadsbury Township, Chester County PA on March 4, 2016 and certified on February 7, 2017.

(ii) The 107.0 tons per year NOx ERCs were certified by the Maryland Department of the Environment (MDE) on May 16, 2014 and transferred to DEPs ERC Registry through the "Reciprocity Agreement" for the interstate trading of ERCs between DEP and MDE.

(iii) DEP approved the transfer of the 107.0 tons per year of NOx ERCs to Waste Management of Fairless, LLC on May 31, 2019.

DEP approved the transfer of the 60.0 tons per year VOC ERCs from Elements Markets, LLC to Waste Management's facility, Falls Township, Bucks County, PA on May 31, 2019.

(iv) The 107.0 tons per year of NOx ERCs will expire on September 14, 2022 and the 60.0 tons per year VOC ERCs will expire on March 4, 2026, in accordance with 25 Pa. Code Section 127.206 (g) , if not used for the ZULE flares and emergency generator project in Plan Approval 09-0210B and re-entered into DEP's ERC Registery.

 # 006 [25 Pa. Code §127.210]

Offset ratios.

(a) The 10-year aggregated VOC emission increase including this project is 46.0 tons.

(b) The permittee shall provide VOC ERCs at a 1.3:1 ratio to offset the net emission increase of 46.0 tons as per 25 Pa. Code §§ 127.210. The required VOC ERCs is 60.0 tons.

(c) The permittee shall not commence operation of any of the sources covered by this Plan Approval, any of the three 6,000 SCFM design capacity ZULE flares or either of the two emergency generator engines until the transfer of 60.0 tons of VOC ERCs are approved by the Department.

SECTION C. Site Level Plan Approval Requirements

 # 007 [25 Pa. Code §127.210]

Offset ratios.

(a) The 5-year aggregated NOx emission increase including this project is 82.23 tons.

(b) The permittee shall provide NOx ERCs at a 1.3:1 ratio to offset the net emission increase of 82.23 tons as per 25 Pa. Code §§ 127.210. The required NOx ERCs is 107.0 tons.

(c) The permittee shall not commence operation of any of the sources covered by this Plan Approval, any of the three 6,000 SCFM design capacity ZULE flares or either of the two emergency generator engines until the transfer of 107.0 tons of NOx ERCs are approved by the Department.

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

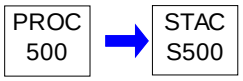
IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

SECTION D. Source Level Plan Approval Requirements

Source ID: 500 Source Name: EXEMPT EMER GENERATOR PRE-2006 ENGINES

Source Capacity/Throughput: N/A Diesel Fuel



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 any of these emergency generators 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.

For all engines listed under this source, the permittee shall limit total combined NOx emissions to less than 100 lbs/hr, 1000 lbs/day, 2.75 tons per ozone season and 6.6 tons per year on a 12-month rolling basis.

The ozone season is defined to be the period from May 1st - September 30th.

 # 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal co

(a) In accordance with 40 CFR § 60.4202(a)(2), the 500 kW engine shall comply with the following certification emission standards of 40 CFR § 89.112:

(1) NMHC + NOx = 6.4 g/kW-hr
(2) CO = 3.5 g/kW-hr
(3) PM = 0.20 g/kW-hr

(b) The 750 kW engine shall comply with the following certification emission standards of 40 CFR § 89.112:

(1) NMHC + NOx = 10.5 g/kW-hr
(2) CO = 3.5 g/kW-hr
(3) PM = 0.20 g/kW-hr

(c) In accordance with 40 CFR § 89.113, exhaust opacity from compression-ignition nonroad engines shall not exceed the following:

(1) 20 percent during the acceleration mode;
(2) 15 percent during the lugging mode; and
(3) 50 percent during the peaks in either acceleration or lugging modes.

Fuel Restriction(s).

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Only diesel fuel oil shall be used in the operation of any of these generator engines.

SECTION D. Source Level Plan Approval Requirements

 # 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject t

Authority for this permit condition is derived from 40 CFR § 60.4207(b) and 40 CFR § 80.510(b).

The permittee shall ensure that all diesel fuel used complies with the following requirements.

Beginning June 1, 2010, all non-road diesel fuel is subject to the following per gallon standards:

- Maximum sulfur content = 15 ppm; and
- Minimum cetane index = 40 or Maximum aromatic content = 35 % by volume

Operation Hours Restriction(s).

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall limit the hours of operation for each engine to 500 hours per year, based on a 12-month rolling sum.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

III. MONITORING REQUIREMENTS.

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor the hours of operation and fuel usage for each engine, on a monthly and 12-month rolling basis, when operated.

IV. RECORDKEEPING REQUIREMENTS.

 # 008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall maintain records of the hours of operation and fuel usage for each engine, on a monthly basis, and as a twelve (12) month rolling sum.

(b) The permittee shall calculate and maintain records of NOx emission calculations for each emergency generator engine on a monthly, ozone season, and 12-month rolling basis.

(c) The permittee shall maintain records of fuel supplier certifications each time a delivery is made to demonstrate compliance with the requirements specified in 40 C.F.R. § 60.4207(b) and 40 CFR § 80.510(b).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements).

VI. WORK PRACTICE REQUIREMENTS.

 # 009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source shall be operated and maintained in accordance with manufacturer's specifications.

SECTION D. Source Level Plan Approval Requirements

 # 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

In accordance with 40 CFR § 60.4211(c), compliance with the emission certification standards of 40 CFR § 60.4205 shall be purchasing an engine certified to the emission standards for the same model year and maximum engine power. These engines shall be installed and configured according to the manufacturer's emission-related specifications.

 # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) The permittee shall operate the emergency stationary R.I.C.E. according to the requirements in the most recent version of 40 C.F.R. Section 60.4211(f).

(b) If the permittee does not operate the engine according to the requirements of 40 C.F.R. Section 60.4211(f), the engine will not be considered an emergency engine under 40 C.F.R. Part 63 Subpart IIII and must meet all requirements for nonemergency engines.

VII. ADDITIONAL REQUIREMENTS.

 # 012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source consists of the following:

(a) Fairless Compressor Emergency Generator 1 - manufactured by Cummins, Model QSX1K23-G7 NR2 with a rating of 750 kW, 1135 bhp

(b) GROWS North Compressor Emergency Generator - manufactured by Cummins, Model QSX15-G9 NR2 with a rating of 500 kW, 732 bhp

 # 013 [25 Pa. Code §129.203]

Stationary internal combustion engines.

The following is applicable to the 750 kW Fairless Compressor Emergency Generator:

(a) Each year, the owner or operator of the stationary internal combustion engine shall calculate the difference between the actual emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period.

(b) The owner or operator shall calculate allowable emissions by multiplying the cumulative hours of operations for the unit for the period by the horsepower rating of the unit and by 2.3 grams of NOx per brake horsepower-hour.

 # 014 [25 Pa. Code §129.204]

Emission accountability.

The following is applicable to the 750 kW Fairless Compressor Emergency Genertor:

(a) The owner or operator shall determine actual emissions in accordance with one of the following:

(1) If the owner or operator of the unit is not required to monitor NOx emissions with a CEMS, one of the following shall be used to determine actual emissions of NOx:

(i) The 1-year average emission rate calculated from the most recent permit emission limit compliance demonstration test data for NOx.

(ii) The maximum hourly allowable NOx emission rate contained in the permit or the higher of the following:

SECTION D. Source Level Plan Approval Requirements

(A) The highest rate determined by use of the emission factor for the unit class contained in the most up-to-date version of the EPA publication, ''AP-42 Compilation of Air Pollution Emission Factors.''

(B) The highest rate determined by use of the emission factor for the unit class contained in the most up-to-date version of EPA's ''Factor Information Retrieval (FIRE)'' data system.

(iii) An alternate calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The operator of the unit shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. In regard to obtaining the Department's approval for an alternate calculation method and recordkeeping procedure for actual emissions, the owner or operator may request an adjustment to the allowable emissions calculations set forth in § § 129.201—129.203. An allowable emission adjustment may not overestimate a unit's allowable emissions and must be based upon the parameters and procedures proposed in the alternate calculation method for actual emissions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

(b) The owner or operator of a unit subject to this section shall surrender to the Department one CAIR NOx allowance and one CAIR NOx Ozone Season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.

(c) If the combined allowable emissions from units subject to this section at a facility from May 1 through September 30 exceed the combined actual emissions from units subject to this section at the facility during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the owner or operator's other facilities.

(d) By November 1, 2005, and by November 1 of each year thereafter, an owner or operator of a unit subject to this section shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:

(1) The serial number of each NOx allowance surrendered.

(2) The calculations used to determine the quantity of NOx allowances required to be surrendered.

(e) If an owner or operator fails to comply with subsection (d), the owner or operator shall by December 31 surrender three NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1 of that year.

(f) The surrender of NOx allowances under subsection (e) does not affect the liability of the owner or operator of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.

(1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.

(2) Each ton of excess emissions is a separate violation.

[Note: On July 6, 2011, EPA promulgated the Cross-State Air Pollution Rule (CSAPR) to replace CAIR. The CSAPR provisions of 40 CFR Part 97, Subpart AAAAA (relating to CSAPR NOx Annual Trading Program), replaced the provisions of 40 CFR Part 96, Subpart AA (relating to CAIR NOx Annual Trading Program General Provisions), and remain in effect. On October 26, 2016, EPA promulgated the CSAPR Update to establish the provisions of 40 CFR Part 97, Subpart EEEEE (relating to CSAPR NOx Ozone Season Group 2 Trading Program), to replace the previously-established CAIR NOx Ozone Season Trading Program and CSAPR NOx Ozone Season Group 1 Trading Program for certain states, including Pennsylvania, beginning with the 2017 ozone season. On April 30, 2021, EPA promulgated the Revised CSAPR Update to

SECTION D. Source Level Plan Approval Requirements

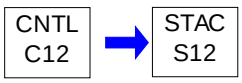
establish the provisions of 40 CFR Part 97, Subpart GGGGG (relating to CSAPR NOx Ozone Season Group 3 Trading Program), to replace the provisions of 40 CFR Part 97, Subpart EEEEE, for certain states, including Pennsylvania, beginning with the 2021 ozone season (though DEP will accept CSAPR NOx Ozone Season Group 2 allowances of current year vintage from other states, if available). Accordingly, the permittee shall surrender CSAPR NOx Annual allowances and CSAPR NOx Ozone Season Group 2 allowances, CSAPR NOx Ozone Season Group 3 allowances or CSAPR NOx Ozone Season Expanded Group 2 allowances, as defined in 40 CFR §§ 97.402, 97.802, and 97.1002, respectively, instead of the CAIR NOx allowances and CAIR NOx Ozone Season allowances indicated in 25 Pa. Code § 129.204(c), as the latter are no longer available.]

SECTION D. Source Level Plan Approval Requirements

Source ID: C12 Source Name: ENCLOSED ULE FLARE 1

Source Capacity/Throughput: 360.000 MCF/HR LANDFILL GAS

Conditions for this source occur in the following groups: ENCLOSED FLARES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

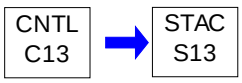
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Plan Approval Requirements

Source ID: C13 Source Name: ENCLOSED ULE FLARE 2

Source Capacity/Throughput: 360.000 MCF/HR LANDFILL GAS

Conditions for this source occur in the following groups: ENCLOSED FLARES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

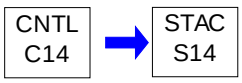
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

SECTION D. Source Level Plan Approval Requirements

Source ID: C14 Source Name: ENCLOSED ULE FLARE 3

Source Capacity/Throughput: 360.000 MCF/HR LANDFILL GAS

Conditions for this source occur in the following groups: ENCLOSED FLARES



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

SECTION E. Source Group Plan Approval Restrictions.

Group Name: ENCLOSED FLARES
Group Description: Enclosed ULE flares
Sources included in this group

ID	Name
C12	ENCLOSED ULE FLARE 1
C13	ENCLOSED ULE FLARE 2
C14	ENCLOSED ULE FLARE 3

I. RESTRICTIONS.

Emission Restriction(s).

 # 001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.762 - Standards for air emissions from municipal solid waste landfills.]

Each flare shall be designed and operated to either reduce nonmethane organic compounds (NMOC) as hexane by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv, dry basis has hexane @ 3% oxygen. Compliance with the reduction efficiency or parts per million by volume requirements must be established by an initial performance test to be completed no later than 180 days after the initial startup using the test methods specified in 40 CFR § 60.764(d) and the methods specified in the Plan Approval.

 # 002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The particulate matter (PM) emissions from each flare shall not exceed 0.02 gr/dscf.

 # 003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Each enclosed flare shall comply with the following emissions limits:

VOC (as hexane):	1.63 lb/hr	7.14 tpy
NOx, 0.025 lb/MMBtu:	4.54 lb/hr	19.90 tpy
CO, 0.06 lb/MMBtu:	10.9 lb/hr	47.76 tpy
SO2:	18.22 lb/hr	79.81 tpy
PM, PM-10, PM-2.5:	2.70 lb/hr	11.83 tpy (filterable and condensable)

Fuel Restriction(s).

 # 004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) Each enclosed flare shall burn on-site landfill gas generated from GROWS, GROWS North, and Fairless Landfills only, except when auxiliary fuel is used during startup, restart, or for augmentation as specified in Condition #005.

(b) The enclosed flares shall be used as the primary control of landfill gas from the three landfill areas at all times, except when the gas is being accepted by an end user. On an interim basis, as in the case of maintenance on the ultra-low emissions flares, landfill gas may be sent to the Back-Up Enclosed Flare (Source ID C05) subject to the limitations and conditions in TVOP 09-00007.

 # 005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The facility shall only use propane to augment the landfill gas to these flares.

 # 006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

When the flares are combusting LFG of insufficient heat content to operate the flares properly, up to 275 standard cubic feet per minute of propane per flare as averaged daily, may be added to the feed upstream of the static mixer to augment the Btu content of the GROWS LFG. The augmentation of the gas to the flares may be done when any one of the following

SECTION E. Source Group Plan Approval Restrictions.

conditions are present:

(a) The methane content of the GROWS LFG is less than 48%
(b) The net heating value of the LFG is less than 460 Btu/cf
(c) The flare(s), not due to any maintenance or repairable condition, cannot maintain a proper flame and repeatedly shutdown.

Throughput Restriction(s).

 # 007 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Landfill gas (LFG) flow through each ULE flare shall be limited to less than 5,000 scfm, unless the following conditions are met:

(a) The LFG is pre-treated through the H2S treatment system at all times prior to combustion in the flare, and

(b) Compliance with the emission limits listed in Condition #003 for the ULE flares have been demonstrated through a performance test conducted at the flare's rated design capacity, or at normal maximum operating conditions (NMOC).

II. TESTING REQUIREMENTS.

 # 008 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall perform a stack test on each installed flare unless all three flares are identical, to which, one stack test may be performed on one representative flare. Otherwise, a stack test is required for each differing flare.

Stack testing shall be conducted using Department-approved procedures, to show compliance with the emission limits. Source testing shall be performed within 180 days after the issuance date of this plan approval. Source testing shall be performed for the following pollutants: NOx, CO, VOC (as hexane), SO2, and PM (filterable and condensable), and expressed in units of lb/MMBtu and lb/hr for NOx and CO, and lb/hr for all other pollutants. Performance tests shall be conducted while the source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Department.

(b) At least ninety (90) days prior to the test, the permittee shall submit to the Department for approval the procedures for the test and a sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples.

(c) Stack tests shall, at a minimum, test for the pollutants NOx, CO, VOC, SO2, and filterable and condensable PM. Tests shall be conducted in accordance with the provisions of 40 CFR § 60.764, Method 7E, Method 10, Method 6C, Method 25 or 25A in conjuction with Method 18, Method 5 or 202, and the Department's source tesing procedures described in the latest Source Testing Manual or other Department approved methodology and 25 Pa. Code Chapter 139. The final decision on approvable methods lies with the Department's Source Testing Division.

(d) At least thirty (30) days prior to the test, the Regional Air Quality Manager, shall be informed of the date and time of the test.

(e) Within sixty (60) days after the source test(s) (unless a more stringent regulatory requirement applies), an electronic copy of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval.

(f) In the event that any of the above deadlines cannot be met, the permittee may request an extension for the due date(s) in writing and include a justification for the extension. The Department may grant an extension for a reasonable cause.

[Compliance with the requirements of this permit condition assures compliance with the requirements specified in 40 CFR § 60.764(d). Test methods and procedures.]

 # 009 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

SECTION E. Source Group Plan Approval Restrictions.

(a) The permittee shall email all source test submissions (notifications, protocols, reports, supplemental information, etc.) to both the AQ Program Manager for the Southeast Regional Office and the PSIMS Administrator in Central Office (email addresses are provided below). Any questions or concerns about source testing submissions can be sent to RA-EPstacktesting@pa.gov and the PSIMS Administrator will address them.

Southeast Region
RA-EPSEstacktesting@pa.gov

Central Office
RA-EPstacktesting@pa.gov

(b) The following pertinent information shall be listed on the title page.

1. Test Date(s)

a. For protocols, provide the proposed date on which testing will commence or "TBD"
b. For reports, provide the first and last day of testing

2. Facility Identification Number (Facility - ID): For test programs that were conducted under a multi-site protocol, also include the PF ID under which the protocol was stored in PSIMS, as indicated in the protocol response letter.

3. Source ID(s) for the applicable source(s) and air pollution control device(s): The term Source ID is used in the permit but "Other Id" is used in DEP electronic systems. They are the same number and must also be listed for control equipment

4. Testing Requirements (all that apply) engineer: edit as necessary, be specific if it helps

a. Plan approval number
b. Applicable federal subpart(s) (i.e. 40 CFR 60, Subpart JJJJ)
c. Special purpose(s) (Consent Order, RFD, RACT, Tier II, etc.)

(c) If confidential information must be submitted, submit both a public copy, which has been redacted, and a confidential copy. The cover page of each submittal should state whether it is a "Public Copy" or "Confidential Copy" and each page of the latter must be marked "CONFIDENTIAL".

III. MONITORING REQUIREMENTS.

 # 010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall monitor the hours of operation when the flare is in operation.

(b) The permittee shall calculate the VOC, NOx, CO, SO2, PM, PM10, and PM2.5 emissions from each enclosed flare on a monthly and 12-month rolling basis. Emission factors from the plan approval application shall be used for calculation purposes until factors have been established from performance testing.

 # 011 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall monitor the methane (CH4) content of the landfill gas to each flare at the minimum of once daily during the operation of the flare.

(a) The monitoring shall be performed with a field meter, maintained as specified in Condition #020 of this section.

(b) The Department may approve an alternate device or procedure for determining methane content, upon notice, in case of unavailability of a field test meter.

(c) The Department reserves the right to re-evaluate these conditions for methane monitoring of landfill gas to the flare and require alternate or additional monitoring conditions.

SECTION E. Source Group Plan Approval Restrictions.

 # 012 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall montior the flowrate of the propane for augmentation at each flare once every hour when augmentation is used.

(b) The permittee shall monitor the amount of propane used on a daily basis when augmentation is used.

IV. RECORDKEEPING REQUIREMENTS.

 # 013 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall record the following for each enclosed flare:

(a) Hours of operation, on a monthly and 12-month rolling basis.

(b) Gas flow rate, every 15 minutes, in scfm.

(c) Average CH4 content on a monthly basis.

(d) The field calibration check for the meter used to measure the methane content

(e) The initial temperature set point of the flare and any change afterwards.

(f) Maintenance performed on the flares.

(g) VOC, NOx, CO, SO2, PM, PM10, and PM2.5 emission calculations from each enclosed flare on a monthly and 12-month rolling basis.

 # 014 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.768(b)(2), (b)(5), (c)(1)(i), (c)(2), (c)(5), and (i). Recordkeeping Requirements.]

The permittee shall maintain records of the following:

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

(b) The percent reduction of NMOC determined as specified in 40 CFR § 60.762(b)(2)(iii)(B) achieved by the control device.

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

(d) Except as provided in 40 CFR § 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 40 CFR § 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 40 CFR § 60.767(g):

(i) For enclosed combustors, 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 40 CFR § 60.762(b)(2)(iii) was determined.

(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 40 CFR § 60.766.

(3) Each owner or operator of a landfill seeking to comply with 40 CFR § 60.762(b)(2) using an active collection system

SECTION E. Source Group Plan Approval Restrictions.

designed in accordance with 40 CFR § 60.762(b)(2)(ii) must keep records of periods when the collection system or control device is not operating.

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

 # 015 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The facility shall monitor and record the landfill gas flow rate through each ULE flare as follows:

(a) Hourly- average of all 15-minute readings within a given hour
(b) Daily - average of all hourly readings within a 24 hour day as defined in 25 Pa Code § 121.1

 # 016 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall keep the following records for propane augmentation of GROWS landfill gas for each flare:

(a) dates propane is used;
(b) flow rate, in scfm, of propane averaged daily; and
(c) total amount of propane used on a daily, monthly, and 12-month rolling sum basis.

 # 017 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The facility shall calculate and record the emissions from each flare when using propane augmentation on a monthly and 12-month rolling basis using the following:

a. The LFG flow emissions shall be calculated using the emissions factors from the most recent stack test or, if no stack test results are available, the emissions factors from the plan approval application;

b. The emissions from the propane shall be calculated using the following emissions factors from EPA AP-42 Chapter 13.5 for industrial flares and the EPA's A National Methodology and Emission Inventory for Residential Fuel for SOx emissions factor, which have been apportioned for propane:

1. NOx- 0.0136 lb/MMbtu
2. SOx - 0.0011 lb/MMbtu
3. CO - 0.0740 lb/MMBtu
4. VOC - 0.0006 lb/MMBtu

c.The LFG flow emissions and the propane emissions shall be combined for the total emissions from each flare.

 # 018 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall monitor and record the hydrogen sulfide concentrations of the H2S treatment system, using a DEP approved method, at least once per calendar month, regardless of whether or not the ULE flares and H2S removal system have been operated. Monitoring locations shall be at the inlet of the lead vessel, between the lead and lag vessels, and after the lag vessel.

(b) The permittee shall maintain records of the annual lab analysis performed on a sample of the LFG that would be combusted in the ULE flares, which shows speciation and concentration values of the sulfur compounds contained in the LFG sample.

(c) The permittee shall record all maintenance activities conducted on the H2S treatment system, including media replacements.

V. REPORTING REQUIREMENTS.

 # 019 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.767(h) and (i). Reporting Requirements.]

SECTION E. Source Group Plan Approval Restrictions.

(a) Initial performance test report. Each owner or operator seeking to comply with 40 CFR § 60.762(b)(2)(iii) must include the following information with the initial performance test report required under 40 CFR § 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;

(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.

(b) Electronic reporting. The owner or operator must submit reports electronically according to paragraphs (1) and (2) below:

(1) Within 60 days after the date of completing each performance test (as defined in 40 CFR § 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 40 CFR § 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 40 CFR § 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.

SECTION E. Source Group Plan Approval Restrictions.

VI. WORK PRACTICE REQUIREMENTS.

 # 020 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The enclosed flares shall meet the following criteria:

(a) Each flare shall be equipped with an automatic pilot ignition source using an auxiliary fuel (e.g. propane or natural gas);

(b) Each flare shall be operated with a flame present at all times. The enclosed flare shall be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During the restart or start-up, there should be sufficient flow of auxiliary fuel to the burners such that unburned landfill gases are not emitted to the atmosphere.

(c) The temperature sensor associated with the continuous temperature monitor shall be positioned so that it will indicate the temperature of the gases.

(d) In the event that a flare is operating at less than 1500°F, or other minimum temperature established by a stack test, for a 3 hour period of operation based on rolling hourly data taken over the 3-hour period, it should be turned off as soon as practical after discovery. The cause should be investigated and corrected before the flare is restarted.

 # 021 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The field meter, used for monitoring methane content of the landfill gas to the flares, shall be re-calibrated either annually or at the minimum frequency specified by the manufacturer, whichever is more frequent, or whenever the error in the midrange calibration check exceeds +/- 10 percent.

 # 022 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.762 - Standards for air emissions from municipal solid waste landfills.]

Each flare 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 40 CFR § 60.766.

 # 023 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The following conditions apply to each enclosed flare:

(a) The enclosed flares shall be designed such that there are no visible flames during normal operations.

(b) The enclosed flares shall be operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.

(c) Each enclosed flare shall maintain, for each 3-hour period of operation based on rolling hourly data, an average combustion temperature no more than 28°C (82°F) below the average combustion temperature during the most recent performance test in which compliance with the destruction/removal requirement was demonstrated. If there has been no performance test, then a minimum temperature of 1500°F will be necessary.

(d) The enclosed flares may be operated at a lower temperature provided that the company has demonstrated, by a stack test that the flares will achieve the 98% destruction/removal efficiency or 20 ppmdv, measured as hexane and corrected to 3% oxygen, at the lower temperature and complies with all the emission limits established in the plan approval. If compliance has been demonstrated at the lower temperature, the owner or operator of the landfill should submit a plan approval application to make the lower operating termperature enforceable.

If the MSW landfill has an operating permit, then a minor operating permit modification, which complies with 25 Pa. Code Section 127.462, should be submitted. Operation at the lower temperature cannot occur until approved by DEP. Under no circumstance will DEP approve an operating temperature less than 1200°F.

(e) The flue gas temperature of each enclosed flare should be measured and recorded in the combustion zone as per the manufacturer's specifications based on the flow into the flare. The temperature in the combustion zone should be used to

SECTION E. Source Group Plan Approval Restrictions.

determine compliance with the minimum temperature requirement. The temperature monitoring device should meet the 40 C.F.R. Section 60.756(b) requirements.

 # 024 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.763(f). Operational standards for collection and control systems.]

The permittee shall operate the flares at all times when the collected gas is routed to the system.

 # 025 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.766(b). Monitoring of Operations.]

The permittee shall calibrate, maintain, and operate the following equipment, according to the manufacturer's specifications:

(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.

(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; or

(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.

 # 026 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.769(c). Specifications for active collection systems.]

Each owner or operator seeking to comply with 40 CFR § 60.762(b)(2)(iii) must convey the landfill gas to a control system in compliance with 40 CFR § 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 (2) of this condition must be used.

(2) For new collection systems, the maximum flow rate must be in accordance with 40 CFR § 60.765(a)(1).

 # 027 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority under 40 CFR § 60.762(b)(2)(iv)]

The flares shall comply with the requirements for combustors used as controls under 40 CFR Part 63 Subpart AAAA. As allowed under 40 CFR § 60.762(b)(2)(iv), the facility may opt-in to comply with 40 CFR §§ 63.1958, 63.1960 and 63.1961 instead of 40 CFR §§ 60.763, 60.765 and 60.766. Once the facility complies with requirements under the parts 40 CFR Part 63 Subpart AAAA substituted for the allowed parts of 40 CFR Part 60 Subpart XXX, the facility cannot revert to the conditions under Subpart XXX.

 # 028 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

SECTION E. Source Group Plan Approval Restrictions.

(a) LFG shall be pre-treated through the H2S treatment system at all times prior to combustion in the ULE flares.

(b) The permittee shall demonstrate compliance with the emission limits for the ULE flares via a performance test conducted at the flare's rated design capacity, or at normal maximum operating conditions (NMOC).

(c) If the requirements in paragraphs (a) and (b) of this condition are not met, the facility shall take the following actions for landfill gas (LFG) flow rates greater than 4,900 scfm:

(1) An exceedance period is defined as a continuous period during which the LFG flow rate of a flare exceeds the trigger value of 4,900 scfm for more than 25% of hourly averages in a 24 hour day, as defined in 25 Pa Code § 121.1. The exceedance period is considered ended once readings are equal to or less than 4,900 scfm for more than 75% of hourly averages in a 24 hour day.

(2) If an exceedance period occurs for a 24 hour day, as defined in 25 Pa Code § 121.1, the facility shall:

(A) Submit a notification electronically to the DEP Southeast Regional Office via GreenPort.

(B) Notification must be submitted within 24 hrs after the discovery of the exceedance. The notification must contain the Source ID of flare(s) with exceedance(s), the hours the exceedances occurred and the landfill gas flow rates for exceedance hours.

(3) If an exceedance period extends to more than a continuous 48 hr period, the facility shall:

(A) Notify DEP as stated in paragraph (B) of this condition.

(B) Monitor and record H2S concentrations in the LFG for an 8 hour continuous period.

(i) LFG must be monitored with equipment capable of one of the following:

(a) The equipment shall have a 0-500 ppm H2S concentration range with a +/- 2.5% accuracy minimum.
(b) Alternatively, a different concentration range or equipment may be used if the concentration of H2S is not less than 25% of the equipment's calibrated range. The minimum accuracy for alternative equipment shall be +/- 2.5%.

(ii) The equipment shall be calibrated using manufacturer's specifications before monitoring begins and 4 hours after the beginning of monitoring.

(iii) The H2S concentration and LFG flow rate will be monitored and recorded hourly for the continuous 8 hour period.

(iv) The LFG monitoring must be completed within 72 hours of the start of the exceedance period.

(v) The results of the monitoring shall be reported to the Department the day after the monitoring is completed.

(4) If an exceedance period extends to more than a continuous 96 hour period , the facility shall schedule stack testing for SO2 using EPA Method 6C for the flare(s) with the exceedance. The facility shall present to the Department possible dates for the stack testing within one week of reaching a 96 hour exceedance period. The facility will inform the Department of the date of the stack testing at least 15 day before the testing date. Should the exceedance period end, as defined in paragraph A of this condition, before stack testing is performed, the facility will still be required to stack test the flare(s) that had an exceedance period.

(5) If the facility installs a control for H2S in the LFG, with acceptable performance testing as proof of control of H2S, the facility may petition the Department to modify and / or remove the monitoring, recording and testing requirements related to the 4,900 scfm trigger value and testing for H2S. All other conditions and requirements of for the ULE flares in this plan approval shall remain in effect.

 # 029 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall measure the amount of propane used for GROWS landfill gas augmentation via a flow meter.

SECTION E. Source Group Plan Approval Restrictions.

(b) The flow meter used for propane measurement shall be maintained and calibrated according to manufacturer's specifications.

 # 030 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The H2S removal system shall be operated in a lead-lag configuration. Upon detection of breakthrough at the outlet of a lead vessel (i.e., H2S concentration value is greater than zero), the permittee shall remove that vessel from lead service and shall operate an alternate vessel or lead-lag train as necessary to maintain H2S removal in accordance with this Plan Approval. Media in a vessel removed from service following breakthrough shall be replaced as soon as practicable, but no later than 30 calendar days following initial detection of breakthrough. Following media replacement, the vessel shall be returned to service as a lead or lag vessel as appropriate provided it does not replace a lead vessel that is partially used on the same train.

(b) The permittee shall keep on hand a sufficient quantity of replacement media in order to fully replace any vessel requiring replacement due to H2S breakthrough of any lead vessel resulting from routine operation of the ULE flares.

(c) On an annual basis, the permittee shall collect a sample of the LFG that would be combusted in the ULE flares and perform a lab analysis using gas chromatography with a sulfur chemiluminescence detector (SCD), or other approved method, to speciate and measure the concentrations of the sulfur compounds contained in the LFG sample.

VII. ADDITIONAL REQUIREMENTS.

 # 031 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.765(e). and 40 CFR § 63.1960(e)(2) Compliance provisions.]

(a) The provisions of 40 CFR Part 60, Subpart XXX set forth in this permit shall apply at all times, including periods of startup, shutdown or malfunction. During periods of startup, shutdown, and malfunction, the permittee shall comply with the work practices specified in 40 CFR § 60.763(e) in lieu of the compliance provisions in 40 CFR § 60.765.

(b) The provisions of 40 CFR Part 63, Subpart AAAA set forth in this permit shall apply at all times, including periods of startup, shutdown or malfunction. The provisions of 40 CFR § 63.6(e) of Subpart A no longer apply under 40 CFR Part 63 Subpart AAAA. During periods of startup, shutdown, and malfunction, the permittee shall comply with the work practices specified in 40 CFR § 63.1958(e) in lieu of the compliance provisions in 40 CFR § 63.1960.

 # 032 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

This source consists of three (3) Zink Ultra Low Emission (ZULE) enclosed ground flares, each rated at 6,000 SCFM, with a residence time of 0.7 seconds, manufactured by John Zink Hamworthy Combustion, LLC, or equivalent.

SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Plan Approval facility.

SECTION G. Emission Restriction Summary.

Source Id	Source Description
500	EXEMPT EMER GENERATOR PRE-2006 ENGINES

Emission Limit			Pollutant
3.500	GRAMS/KW-Hr		CO
2.750	Tons/Yr	Ozone season	NOX
6.600	Tons/Yr	12-month rolling basis	NOX
100.000	Lbs/Hr		NOX
1,000.000	Lbs/Day		NOX
6.400	GRAMS/KW-Hr		NOx+NMHC
10.500	GRAMS/KW-Hr		NOx+NMHC
500.000	PPMV	dry basis	SO2
0.200	GRAMS/KW-Hr		TSP

C12 ENCLOSED ULE FLARE 1

Emission Limit			Pollutant
10.900	Lbs/Hr		CO
47.760	Tons/Yr	12-month rolling basis	CO
1.630	Lbs/Hr		NMOC
7.140	Tons/Yr	12-month rolling basis	NMOC
20.000	PPMV	dry basis	NMOC
4.540	Lbs/Hr		NOX
19.900	Tons/Yr	12-month rolling basis	NOX
18.220	Lbs/Hr		SO2
79.810	Tons/Yr	12-month rolling basis	SO2
0.020	gr/DRY FT3		TSP
2.700	Lbs/Hr		TSP
11.830	Tons/Yr	12-month rolling basis	TSP

C13 ENCLOSED ULE FLARE 2

Emission Limit			Pollutant
10.900	Lbs/Hr		CO
47.760	Tons/Yr	12-month rolling basis	CO
1.630	Lbs/Hr		NMOC
7.140	Tons/Yr	12-month rolling basis	NMOC
20.000	PPMV	dry basis	NMOC
4.540	Lbs/Hr		NOX
19.900	Tons/Yr	12-month rolling basis	NOX
18.220	Lbs/Hr		SO2
79.810	Tons/Yr	12-month rolling basis	SO2
0.020	gr/DRY FT3		TSP
2.700	Lbs/Hr		TSP
11.830	Tons/Yr	12-month rolling basis	TSP

C14 ENCLOSED ULE FLARE 3

Emission Limit			Pollutant
10.900	Lbs/Hr		CO
47.760	Tons/Yr	12-month rolling basis	CO

SECTION G. Emission Restriction Summary.

Source Id	Source Description

1.630	Lbs/Hr		NMOC
7.140	Tons/Yr	12-month rolling basis	NMOC
20.000	PPMV	dry basis	NMOC
4.540	Lbs/Hr		NOX
19.900	Tons/Yr	12-month rolling basis	NOX
18.220	Lbs/Hr		SO2
79.810	Tons/Yr	12-month rolling basis	SO2
0.020	gr/DRY FT3		TSP
2.700	Lbs/Hr		TSP
11.830	Tons/Yr	12-month rolling basis	TSP

Site Emission Restriction Summary

Emission Limit			Pollutant
65.350	Tons/Yr	12-month rolling basis	NOX
143.550	Tons/Yr	12-month rolling basis	CO
239.540	Tons/Yr	12-month rolling basis	SO2
21.550	Tons/Yr	12-month rolling basis	VOC
100.000	Tons/Yr	12-month rolling basis	PM10
100.000	Tons/Yr	12-month rolling basis	PM2.5

SECTION H. Miscellaneous.

AUTH 1244758; APS 976824: original issuance of plan approval for ULE flares on 6/4/2019
AUTH 1331290; APS 976824: extension issued 12/3/2020
AUTH 1351537; APS 976824: extension issued 6/3/2021
AUTH 1373646; APS 976824: extension issued 12/3/2021
AUTH 1393026; APS 976824: extension issued 6/3/2022
AUTH 1394800; APS 976824: modification of plan approval to reduce LFG flow through flares to reduce SO2 emissions from stack test rate of 21.12 lb.hr to under the permit limit of 18.22 lb/hr
AUTH 1416098; APS 976824: extension issued 12/3/2022
AUTH 1434533; APS 976824: extension issued 6/3/2023
AUTH 1460466; APS 976824: extension issued 12/3/2023

AUTH 1478655; APS 976824: application received on 3/28/2024 for the use of propane to enrich methane deficient GROWS LFG in order to burn LFG in flares. Plan approval modified to allow propane augmentation of GROWS LFG under specific conditions. Limits, monitoring and record keeping for propane usage added to plan approval

AUTH 1480806; APS 976824: extension application received on 4/16/2024
AUTH 1508402; APS 976824: extension application received on 12/3/2024
AUTH 1525617; APS 976824: extension issued 6/03/2025
AUTH 1544658; APS 976824: extension issued 10/15/2025

AUTH 1567867; APS 976824: a plan approval modification to install sulfur controls to remove hydrogen sulfide from landfill gas prior to combustion in the three (3) ULE flares, and to increase the gas flow rate to the ULE flares up to their designed capacity of 6,000 scfm upon satisfactory demonstration that the SO2 emission limits are being met.

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