



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: November 18, 2025

Effective Date: November 18, 2025

Expiration Date: April 30, 2027

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. 36-03230A

Federal Tax Id - Plant Code: 92-3689723-1

Owner Information

Name: WB LANCHESTER LLC
Mailing Address: 150 MONUMENT RD
BALA CYNWYD, PA 19004-1702

Plant Information

Plant: WB LANCHESTER LLC/LANCHESTER LANDFILL
Location: 36 Lancaster County 36915 Caernarvon Township
SIC Code: 2813 Manufacturing - Industrial Gases

Responsible Official

Name: PRINCE GUENAE
Title: CEO
Phone: (267) 614 - 1533 Email: prince.guenael@waga-energy.com

Plan Approval Contact Person

Name: GEOFF FEILER
Title: PROJECT ENGINEER
Phone: (267) 614 - 1533 Email: geoff.feiler@waga-energy.com

[Signature] _____
WILLIAM R. WEAVER, SOUTHCENTRAL REGION AIR PROGRAM MANAGER



Plan Approval Description

This plan approval authorizes the construction and operation of a renewable natural gas (RNG) plant at the Lanchester Landfill. The proposed RNG plant will process approximately 2000 scfm of untreated landfill gas into pipeline quality natural gas. Waste gas from the treatment process will be controlled by a 1340 scfm thermal oxidizer and off-spec RNG will be controlled by a 3000 scfm utility flare.



SECTION A. Table of Contents

Section A. Facility/Source Identification

Table of Contents
Plan Approval Inventory List

Section B. General Plan Approval Requirements

- #001 Definitions
- #002 Future Adoption of Requirements
- #003 Plan Approval Temporary Operation
- #004 Content of Applications
- #005 Public Records and Confidential Information
- #006 Plan Approval Terms and Conditions
- #007 Transfer of Plan Approvals
- #008 Inspection and Entry
- #009 Plan Approval Changes for Cause
- #010 Circumvention
- #011 Submissions
- #012 Risk Management
- #013 Prohibition of Air Pollution
- #014 Compliance Requirement

Section C. Site Level Plan Approval Requirements

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

Section D. Source Level Plan Approval Requirements

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

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

Section E. Source Group Restrictions

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

Section F. Alternative Operating Scenario(s)

- F-I: Restrictions
- F-II: Testing Requirements



SECTION A. Table of Contents

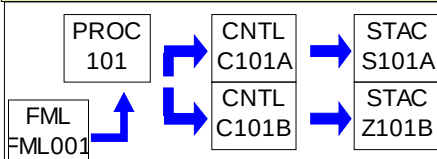
F-III: Monitoring Requirements
F-IV: Recordkeeping Requirements
F-V: Reporting Requirements
F-VI: Work Practice Standards
F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous

**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	RENEWABLE NATURAL GAS (RNG) PLANT	120.000 MCF/HR	RAW LANDFILL GAS
C101A	THERMAL OXIDIZER	80.400 MCF/HR	WASTE GAS
		3.000 MCF/HR	SUPPLEMENTAL NG
C101B	UTILITY FLARE	180.000 MCF/HR	LFG OR OFF-SPEC RNG
FML001	RAW LANDFILL GAS		
S101A	THERMAL OXIDIZER STACK		
Z101B	FUGITIVE FLARE EMISSIONS		

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**

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:
 - (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:

**SECTION B. General Plan Approval Requirements**

- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.

(2) The permittee shall submit any additional relevant information requested by the Department or 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 §123.1]****Prohibition of certain fugitive emissions**

(1) Construction or demolition of buildings or structures.

(2) Grading, paving and maintenance of roads and streets.

(3) Use of roads and streets. Emissions from material in or on trucks, railroad cars and other vehicular equipment are not considered as emissions from use of roads and streets.

(4) Clearing of land.

(5) Stockpiling of materials.

(6) Open burning operations.

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

(a) the emissions are of minor significance with respect to causing air pollution;

(b) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air standard.

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

The permittee may not allow fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in Section C, Condition #001, if the emissions are visible at the point the emissions pass outside the permittee's property.

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

The permittee may not allow 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 permittee's property.

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

The permittee may not allow the emission of visible air contaminants into the outdoor atmosphere 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 one hour.

(2) Equal to or greater than 60% at any time.

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

The emission limitations of Section C, Condition #004 (25 Pa Code Section 123.41) shall not apply when:

(1) The presence of uncombined water is the only reason for failure of the emission to meet the limitation.

(2) The emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.

(3) The emission results from sources specified in Section C, Condition #001 subsections (1)-(7).

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

(a) The permittee may not allow or conduct open burning of materials in such a manner that:

(1) The emissions are visible, at any time, at the point such emissions pass outside the permittee's property.

**SECTION C. Site Level Plan Approval Requirements**

- (2) Malodorous air contaminants from the open burning are detectable outside the permittee's property.
- (3) The emissions interfere with the reasonable enjoyment of life and property.
- (4) The emissions cause damage to vegetation or property.
- (5) The emissions are or may be deleterious to human or animal health.
- (b) Exceptions. The requirements of subsection (a), above, 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) Any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
 - (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
 - (4) A fire set solely for recreational or ceremonial purposes.
 - (5) A fire set solely for cooking food.

This permit does not constitute authorization to burn solid waste in violation of Section 610(3) of the Solid Waste Management Act (SWMA), 35 PS Section 6018.610(3), or any other provision of the SWMA.

II. TESTING REQUIREMENTS.**# 007 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The Department reserves the right to require exhaust stack testing of the sources and controls referenced in this permit to measure emissions for purposes including verification of permit condition compliance and estimation of annual air emissions.

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 certified, to measure plume opacity with the naked eye, as per EPA Method 9, or with the aid of any devices approved by the Department.

009 [25 Pa. Code §127.441]**Operating permit terms and conditions.**

The permittee shall conduct a monthly inspection during regular business workdays around the plant periphery during the daylight hours when the plant is in production to detect visible emissions, fugitive emissions and malodorous air contaminants. The monthly inspections are necessary to determine:

- a) The presence of visible emissions. Visible emissions may be measured according to the methods specified in Section C, Condition #008. As an alternative, plant personnel who observe such visible emissions shall report each incident to the Department within two (2) hours of the occurrence and arrange for a certified observer to read the visible emissions.
- b) Presence of fugitive emissions beyond the facility property boundaries, as stated in Section C, Condition #002.
- c) Presence of any malodors beyond the facility property boundaries as stated in Section C, Condition #003.

**SECTION C. Site Level Plan Approval Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 010 [25 Pa. Code §127.441]****Operating permit terms and conditions.**

The permittee shall maintain records of monthly inspections around the facility periphery. The records shall include, at minimum, the following information:

1. The name of the company representative monitoring these instances.
2. The date and time of the observation.
3. The wind direction during each observation.
4. A description of any emissions and/or malodors observed and actions taken to mitigate them. If none are observed, record "NONE."

V. REPORTING REQUIREMENTS.**# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

a.) The permittee shall submit semiannual reports to the Department regarding the project that is the subject of this plan approval. The reports shall be due on January 31 and July 31 of each year. The permittee shall continue submitting these reports until either:

- 1.) the first plan approval extension application for the project has been submitted, or
- 2.) the permit administrative amendment application has been submitted for the project, or
- 3.) an operating permit initial or renewal application addressing the inclusion of this plan approval, has been submitted for the facility.

b.) The semiannual reports shall contain the following:

- 1.) a brief summary of the status of the project, including any key construction milestones during the relevant semiannual period, and
- 2.) a statement of whether the equipment that is the subject of the plan approval has begun operating for any purpose, and what was the date that such operation began.
- 3.) a statement of whether a plan approval extension is expected to be needed during the upcoming semiannual period, and if so, when the permittee anticipates submitting the application for such an extension.

c.) The semiannual reports shall be sent to William Weaver, Air Quality Program Manager, at wiweaver@pa.gov.

d.) Within 60 days of the Department's written request to do so, the permittee shall submit either:

- 1.) an initial state-only or Title V operating permit application for this facility, or
- 2.) an application for administrative amendment to incorporate the provisions of this plan approval into an existing state only or Title V operating permit.

012 [25 Pa. Code §127.442]**Reporting requirements.**

(a) The permittee shall report malfunctions which occur at the facility to the DEP. As defined in 40 CFR Section 60.2 and incorporated by reference in 25 Pa. Code Chapter 122, a malfunction is 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. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. Malfunctions shall be reported as follows:



SECTION C. Site Level Plan Approval Requirements

(1) Any malfunction which poses an imminent danger to the public health, safety, welfare and environment, shall be immediately reported to the DEP by telephone. The telephone report of such malfunctions shall occur no later than two (2) hours after the permittee is aware of the malfunction. The permittee shall submit a written report of instances of such malfunctions to the DEP within three (3) days of the telephone report.

(2) Unless otherwise required by this permit, any other malfunction that is not subject to the reporting requirements of paragraph (1) above, shall be reported to the DEP, in writing, within five (5) days of discovery of the malfunction.

(b) Unless otherwise approved by DEP, all malfunctions shall be reported through the Department's Greenport PUP system available through:

<https://greenport.pa.gov/ePermitPublicAccess/PublicSubmission/Home>

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

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

VI. WORK PRACTICE REQUIREMENTS.

013 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne from any source specified in Section C, Condition #001(1)-(7). These actions shall include, but are not limited to the following:

(1) Use of water or chemicals, where possible, 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.

014 [25 Pa. Code §127.444]

Compliance requirements.

The permittee shall operate and maintain the RNG plant and associated air cleaning devices identified in this plan approval in accordance with the manufacturer's recommendations/specifications, as well as consistent with good operating practices.

VII. ADDITIONAL REQUIREMENTS.

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

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: 101

Source Name: RENEWABLE NATURAL GAS (RNG) PLANT

Source Capacity/Throughput: 120.000 MCF/HR RAW LANDFILL GAS

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

**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: C101A

Source Name: THERMAL OXIDIZER

Source Capacity/Throughput:

80.400 MCF/HR

WASTE GAS

3.000 MCF/HR

SUPPLEMENTAL NG

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

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: C101B

Source Name: UTILITY FLARE

Source Capacity/Throughput:

180.000 MCF/HR

LFG OR OFF-SPEC RNG

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

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: GROUP 001

Group Description: RNG Processing

Sources included in this group

ID	Name
101	RENEWABLE NATURAL GAS (RNG) PLANT
C101A	THERMAL OXIDIZER
C101B	UTILITY FLARE

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The thermal oxidizer shall be operated in accordance with the following restrictions:

- a) At least 98% destruction/removal efficiency for NMOCs at the thermal oxidizer exit or a reduction in NMOCs of the gas at the thermal oxidizer exit of 20 PPM or less as hexane, dry basis at 3% O₂.
- b) NO_x emission rate of 0.06 lb NO_x/MMBtu at the exit of the thermal oxidizer.
- c) CO emission rate of 0.20 lb CO/MMBtu at the exit of the thermal oxidizer.
- d) SO₂ exhaust concentration of 25 ppmvd at the exit of the thermal oxidizer.
- e) PM emission rate of 0.04 gr/dscf at the exit of the thermal oxidizer. This limit is based on the filterable fraction of PM emissions only.

Throughput Restriction(s).**# 002 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) The utility flare shall not operate for more than 1500 hours per year based on a 12-month rolling period.
- (b) The permittee shall keep records of the amount of hours that the utility flare is used over each of the 12-month rolling periods as referenced in paragraph (a) above.

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

- (a) Unless otherwise approved in writing by DEP, the permittee shall do the following:
 - (1) Within 180-days of the start-up date of the thermal oxidizer, submit a test protocol to the Department for approval for EPA reference method (or alternate method) stack testing in accordance with 25 Pa Code Chapter 139 and applicable EPA reference methods to quantify the following from the thermal oxidizer:
 - (i) NMOC emissions, to either demonstrate a 98% destruction/removal efficiency or a 20 ppmv outlet concentration, dry basis as hexane at 3 percent oxygen;
 - (ii) NO_x emissions in (lb/MMBtu); and
 - (iii) CO emissions in (lb/MMBtu).
 - (iv) PM emissions (filterable only) in gr/dscf and lb/hr.
 - (v) SO₂ in ppmvd and lb/hr.

**SECTION E. Source Group Plan Approval Restrictions.**

- (2) Not to conduct the test that is the subject of the protocol until the protocol has been approved by DEP.
- (3) If DEP finds deficiencies in the protocol, provide a response to DEP addressing the deficiencies within 30 days of being notified of the deficiencies.
- (4) Within 180 days after approval of the protocol by DEP, or on an alternative schedule as approved by the Department, conduct the test as approved in the protocol.
- (b) Pursuant to 25 Pa. Code § 139.3 at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
- (c) Pursuant to 25 Pa. Code Section 139.53(a)(3) within 15 calendar days after completion of the on-site testing portion of an emission test program, if a complete test report has not yet been submitted, an electronic mail notification shall be sent to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office indicating the completion date of the on-site testing.
- (d) Pursuant to 40 CFR Part 60.8(a), 40 CFR Part 61.13(f) and 40 CFR Part 63.7(g) a complete test report shall be 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.
- (e) Pursuant to 25 Pa. Code Section 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
 2. Permit number(s) and condition(s) which are the basis for the evaluation.
 3. Summary of results with respect to each applicable permit condition.
 4. Statement of compliance or non-compliance with each applicable permit condition.
- (f) Pursuant to 25 Pa. Code § 139.3 to all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (g) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (h) Pursuant to 25 Pa. Code Section 139.53(a)(1) and 139.53(a)(3) all submittals, besides notifications, shall be accomplished through PSIMS*Online available through <https://www.depgreenport.state.pa.us/ecommm/Login.jsp> when it becomes available. If internet submittal cannot be accomplished, one digital copy of each submittal shall be made to each of the following:
- Regional Office:
Digital copy: RA-epscstacktesting@pa.gov
- Bureau of Air Quality:
Digital copy: RA-epstacktesting@pa.gov
- (i) 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

**SECTION E. Source Group Plan Approval Restrictions.**

default.

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

(a) The permittee shall install and maintain instrumentation to measure and record the following:

- (i) On a daily basis, the daily landfill gas volumetric flow rate to the inlet of the RNG plant;
- (ii) On a daily basis, the daily waste gas volumetric flow rate at the inlet of the thermal oxidizer;
- (iii) On a continuous basis, at discrete time intervals not to exceed more than 15 minutes, the temperature within the thermal oxidizer combustion chamber.
- (iv) On a continuous basis, at discrete time intervals not to exceed more than 15 minutes, the percent methane content and heat content (BTU/scf) of the waste gas being processed by the thermal oxidizer.
- (v) On a daily basis, the daily off-specification RNG and/or landfill gas volumetric flow rate at the inlet of the utility flare, when operated.
- (vi) On a continuous basis, at discrete time intervals not to exceed more than 15 minutes, the utility flare combustion temperature, when operated.
- (vii) On a continuous basis, at discrete time intervals not to exceed more than 15 minutes, the percent methane content and heat content (BTU/scf) of the landfill gas or off-spec RNG being processed by the utility flare, when operated.

IV. RECORDKEEPING REQUIREMENTS.**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall maintain the following records:

- (i) On a monthly and 12-month rolling total basis, the total volume of landfill gas processed by the RNG plant;
- (ii) On a daily, monthly and 12-month rolling total basis, the volume of waste gas processed by the thermal oxidizer;
- (iii) On a daily basis, the average temperature within the thermal oxidizer combustion chamber;
- (iv) On a daily basis, the average methane content of the waste gas processed by the thermal oxidizer;
- (v) On a monthly and 12-month rolling total basis, the total heat input of the waste gas processed by the thermal oxidizer;
- (vi) On a daily, monthly and 12-month rolling total basis, the volume of waste gas processed by the utility flare;
- (vii) On a daily basis, the average combustion temperature of the utility flare;
- (viii) On a daily basis, the average methane content of the landfill gas/off-spec gas processed by the utility flare;
- (ix) On a monthly and 12-month rolling total basis, the total heat input of landfill gas/off-spec gas processed by the utility flare.

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

**SECTION E. Source Group Plan Approval 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).

VI. WORK PRACTICE REQUIREMENTS.**# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) The thermal oxidizer shall be designed such that there are no visible flames during normal operation.
- (b) The thermal oxidizer should be operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours.
- (c) The thermal oxidizer shall maintain, for each 3-hour period of operation, an average combustion temperature of no more than 28°C (50.4°F) below the average combustion temperature during the most recent performance test in which compliance with the NMOC emission limitation was established. Compliance shall be verified based on the daily average combustion chamber temperature monitoring required by Condition #004.
- (d) The thermal oxidizer may be operated at temperatures below 1,500°F provided that testing has demonstrated compliance with the NMOC standard at the lower temperature. Under no circumstance may the thermal oxidizer operate at less than 1,200°F. Compliance shall be verified based on the daily average combustion chamber temperature monitoring required by Condition #004.
- (e) The thermal oxidizer and utility flare shall each be equipped with an automatic pilot ignition source using an auxiliary fuel (e.g., propane/natural gas/process gas).
- (f) The thermal oxidizer and utility flare shall always be operated with a flame present. The thermal oxidizer and utility flare shall each be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs.
- (g) During the restart or start-up, the thermal oxidizer and utility flare shall be designed to provide sufficient flow of auxiliary fuel to the burner such that unburned landfill gases are not emitted to the atmosphere.
- (h) The utility flare shall be designed in accordance with 40 CFR 60.18, and shall be located with natural visible screening, including vegetation and topography, to minimize off-site visual impacts.
- (i) The RNG refinery shall not be operated unless the associated control devices are operational.
- (j) The utility flare may only be used to combust raw landfill gas if the facility's thermal oxidizer is not operational due to maintenance, malfunction, repair, or similar activities. The facility shall maintain the following records when maintenance, malfunction, repair or similar activity happens:
 - (i) Date of the maintenance, malfunction, repair or other similar activity;
 - (ii) Duration of maintenance, malfunction, repair or other similar activity;
 - (iii) A record of the work performed and, in the case of a malfunction, the cause of the malfunction.

VII. ADDITIONAL REQUIREMENTS.

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

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.



SECTION H. Miscellaneous.



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