



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: August 3, 2023

Effective Date: August 4, 2026

Revision Date: July 29, 2026

Expiration Date: February 3, 2027

Revision Type: Extension

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. 09-0252A

Federal Tax Id - Plant Code: 45-0511978-1

Owner Information

Name: WM RENEWABLE ENERGY, LLC

Mailing Address: 1000 NEW FORD MILL RD
MORRISVILLE, PA 19067-3704

Plant Information

Plant: FAIRLESS RNG

Location: 09 Bucks County 09002 Falls Township

SIC Code: 4924 Trans. & Utilities - Natural Gas Distribution

Responsible Official

Name: RANDY BECK

Title: VP

Phone: (713) 816 - 4539

Email: Rbeck3@wm.com

Plan Approval Contact Person

Name: DORIAN ADAMS

Title: NE REGIONAL MNGR

Phone: (540) 220 - 4903

Email: dadams10@wm.com

[Signature] _____

JILLIAN A. GALLAGHER, SOUTHEAST REGION AIR PROGRAM MANAGER



Plan Approval Description

The new facility will consist of two (2) identical 6,000 scfm renewable natural gas (RNG) plants, each with a thermal oxidizer and process flare. Included with this project is the shutdown of the following:

- Two (2) backup enclosed flares, Source IDs C03 and C06, which are operating under Title V Operating Permit No. 09 00007, related to the G.R.O.W.S. and G.R.O.W.S. North Landfills; and,
- Two backup enclosed flares, Source IDs C10 and C11, which are operating under Plan Approval No. 09-0210A, related to the Fairless Landfill.



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

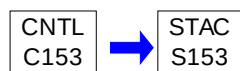
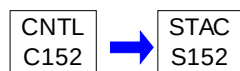
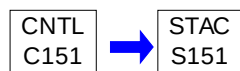
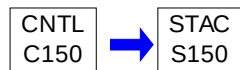
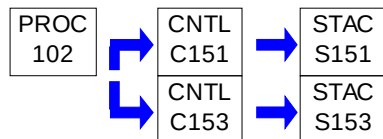
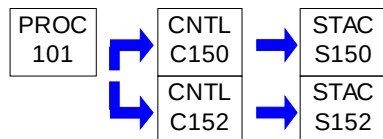
F-III: Monitoring Requirements
F-IV: Recordkeeping Requirements
F-V: Reporting Requirements
F-VI: Work Practice Standards
F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous

**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	RNG PLANT #1 (SOUTH PLANT)	360.000 MCF/HR	LANDFILL GAS
102	RNG PLANT #2 (NORTH PLANT)	360.000 MCF/HR	LANDFILL GAS
C150	THERMAL OXIDIZER #1	163.500 MCF/HR	TAIL GAS
		13.200 MCF/HR	Natural Gas
C151	THERMAL OXIDIZER #2	163.500 MCF/HR	TAIL GAS
		13.200 MCF/HR	Natural Gas
C152	FLARE #1	360.000 MCF/HR	LANDFILL GAS
C153	FLARE #2	360.000 MCF/HR	LANDFILL GAS
S150	THERMAL OXIDIZER #1 STACK		
S151	THERMAL OXIDIZER #2 STACK		
S152	FLARE #1 STACK		
S153	FLARE #2 STACK		

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 §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. Section 4003).

002 [25 Pa. Code §123.1]**Prohibition of certain fugitive emissions**

No person may permit the emission into the outdoor atmosphere of a fugitive air contaminant from a source other than the following:

- (a) Construction or demolition of buildings or structures.
- (b) Grading, paving and maintenance of roads and streets.
- (c) 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.
- (d) Clearing of land.
- (e) Stockpiling of materials.
- (f) Open burning operations, as specified in 25 Pa. Code § 129.14.
- (g) N/A
- (h) N/A
- (i) Sources and classes of sources other than those identified in (a) - (h) above, for which the operator has obtained a determination from the Department, in accordance with 25 Pa. Code § 123.1 (b), that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (1) The emissions are of minor significance with respect to causing air pollution; and
 - (2) The emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

003 [25 Pa. Code §123.2]**Fugitive particulate matter**

The permittee may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code § 123.1(a) (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the property on which the source(s) are located.

004 [25 Pa. Code §123.31]**Limitations**

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

005 [25 Pa. Code §123.41]**Limitations**

The permittee may not permit the emission into the outdoor atmosphere of visible air contaminants from any source in such a manner that the opacity of the emission is either of the following:

- (a) Equal to or greater than 20% for a period or periods aggregating more than three (3) minutes in any one (1) hour.
- (b) Equal to or greater than 60% at any time.

**SECTION C. Site Level Plan Approval Requirements****# 006 [25 Pa. Code §123.42]****Exceptions**

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

- (a) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (b) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
- (c) When the emission results from sources specified in 25 Pa. Code § 123.1(a)(1) - (6) (relating to prohibition of certain fugitive emissions).

II. TESTING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) If at any time the Department has cause to believe that air contaminant emissions from any source may be in excess of the limitations specified in this Permit, or established pursuant to, any applicable rule or regulation contained in 25 Pa. Code Article III, the permittee shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s).
- (b) Such testing shall be conducted in accordance with the provisions of 25 Pa. Code Chapter 139, the most current version of the DEP Source Testing Manual, and the EPA Clean Air Act National Stack Testing Guidance, when applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the permittee that testing is required.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The following applies whenever the permittee is required to submit stack test protocols, stack test reports, notifications pertaining to such stack testing, or any other related documents:

- (a) The permittee shall submit an electronic copy of 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.

Central Office
RA-EPstacktesting@pa.gov

Southeast Region
RA-EPSEstacktesting@pa.gov

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

(1) Test Date(s)

- (i) For protocols, provide the proposed date on which testing will commence or "TBD"
- (ii) 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.



SECTION C. Site Level Plan Approval Requirements

(4) Testing Requirements (all that apply)

- (i) Plan approval number(s)
- (ii) Operating permit number
- (iii) Applicable federal subpart(s) (i.e. 40 CFR 60, Subpart JJJJ)
- (iv) Special purpose(s) (Consent Order, RFD, RACT II, Tier II, etc.)

(c) Eliminate shading, color ink for data emphasis, small font size, and color saturation as the scanning to create an electronic file is done in black and white. Shading and color emphasis do not scan well and make the electronic copies difficult to read.

(d) The Department limits emails to 15 MB and PSIMS has a file size limitation of 100 MB for electronic files. Submit just one electronic file (convert any Microsoft Word or Excel files to an Adobe PDF format and combine them with the report or protocol), unless the submission contains CONFIDENTIAL information.

(e) 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.

009 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions may be measured using either of the following:

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

010 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

(a) The permittee shall monitor the facility, once per operating day, for the following:

- (1) Odors which may be objectionable (as per 25 Pa. Code § 123.31).
- (2) Visible emissions (as per 25 Pa. Code §§ 123.41 and 123.42).
- (3) Fugitive particulate matter (as per 25 Pa. Code §§ 123.1 and 123.2).

(b) All detectable objectionable odors, that originated on-site and cross the property line, as well as fugitive particulate emissions that originated on-site and cross the property line, and visible emissions that originated on site shall:

- (1) Be investigated;
- (2) Be reported to the facility management, or individual(s) designated by the permittee; and
- (3) Be recorded in a permanent log.

(c) After six (6) months of daily monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to weekly for the next six month period.

(d) After six (6) months of weekly monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the frequency of monitoring to monthly.

(e) The Department reserves the right to change the above monitoring requirements at any time, based on but not limited to: the review of the compliance certification, complaints, monitoring results, and/or Department findings.

**SECTION C. Site Level Plan Approval Requirements****IV. RECORDKEEPING REQUIREMENTS.****# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Unless stated otherwise, all records generated as a requirement of this permit shall be maintained for a minimum of five (5) years and made readily available to DEP upon request.

012 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall maintain a record of all monitoring of fugitive emissions, visible emissions and odors that may be objectionable, including those that deviate from the conditions found in this permit. The record of deviations shall contain, at a minimum, the following items:

- (a) Date, time, and location of the incident(s).
- (b) The cause of the incident.
- (c) The corrective action taken, if necessary, to abate the incident and prevent future incidents.

V. REPORTING REQUIREMENTS.**# 013 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. 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. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.

(c) The report shall describe the following:

- (1) Name, permit or authorization number, and location of the facility;
- (2) Nature and cause of the malfunction, emergency or incident;
- (3) Date and time when the malfunction, emergency or incident was first observed;
- (4) Expected duration of excess emissions;
- (5) Estimated rate of emissions; and
- (6) Corrective actions or preventative measures taken.

(d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.

(e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.

(f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.

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

(g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

014 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.511(c)]

The permittee shall submit the following reports:

(a) An annual certificate of compliance, due by April 1st of each year, for the period covering January 1 through December 31 of the previous year. This certificate of compliance shall document compliance with all permit terms and conditions set forth in this Title V permit as required under condition #26 of section B of this permit. The annual certificate of compliance shall be submitted to DEP electronically, and EPA Region III in electronic form at the following email address:

R3_APD_Permits@epa.gov.

(b) A semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year. Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).

015 [25 Pa. Code §135.21]**Emission statements**

The permittee shall submit by March 1, of each year, an annual emission statement for the preceding calendar year. The statement shall contain calculation methods and time periods over which the calculations were made.

016 [25 Pa. Code §135.3]**Reporting**

The permittee, who has been previously advised by the Department to submit a source report, shall submit by March 1, of each year, a source report for the preceding calendar year. The report shall include information from all previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported, including those sources listed in the Miscellaneous Section of this permit.

VI. WORK PRACTICE REQUIREMENTS.**# 017 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

A person responsible for any source specified in 25 Pa. Code § 123.1 shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

(a) Use, where possible, of water or suitable chemicals, as approved by the Department, for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.

(b) Application of asphalt, water, or other suitable chemicals, as approved by the Department, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.

(c) Paving and maintenance of roadways.

(d) 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 by other means.

018 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall ensure that the sources and air pollution control devices listed in this permit are operated and maintained in a manner consistent with good operating and maintenance practices, and in accordance with manufacturers' specifications.

019 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

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

The RNG Plants are approved to receive landfill gas from the following landfills:

- (a) The Fairless Landfill (Title V Operating Permit No. 09-00210;
- (b) The G.R.O.W.S. and G.R.O.W.S. North Landfills (Title V Operating Permit No. 09-00007; and,
- (c) The Tullytown Resource Recovery Facility (Title V Operating Permit No. 09-00024.

VII. ADDITIONAL REQUIREMENTS.**# 020 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) The permittee shall provide written notification to DEP within twenty-four (24) hours of bringing onsite a temporary generator. The notification shall include an NSR analysis that includes a 5-year look back and a 10-year look back, to show that the installation of the source does not trigger NSR. Additionally, the permittee must provide demonstration that the temporary generator complies with all State and Federal requirements.
- (b) For each incident that a temporary generator is brought onsite, the permittee shall record the following:
 - (1) Dates when the unit was brought onsite and removed from the site;
 - (2) The hours the unit was operated;
 - (3) Emissions of NO_x, CO, VOC, PM, SO_x, and HAP.
- (c) These temporary generators shall be operated with a Tier 4 engine, or better. They are only permitted to be onsite for a period not to last any longer than thirty (30) days.

021 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code § 127.203a]

Within 30 days of completing construction of both RNG Plants:

- (a) The permittee shall decommission the following backup flares:
 - (1) Source IDs C03 and C06, which are operating under Title V Operating Permit No. 09 00007 (G.R.O.W.S. and G.R.O.W.S. North Landfills); and,
 - (2) Source IDs C10 and C11, which are operating under Plan Approval No. 09-0210A (Fairless Landfill).
- (b) The permittee shall notify DEP of the dates when the sources mentioned in (a), above, were decommissioned.
- (c) The permittee shall submit Minor Modification applications for both the Fairless Landfill and the G.R.O.W.S. and G.R.O.W.S. North Landfills to address the management of landfill gas from the respective landfills.

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.

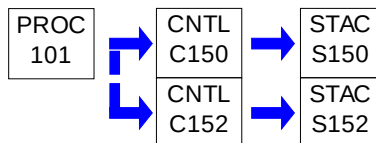
**SECTION D. Source Level Plan Approval Requirements**

Source ID: 101

Source Name: RNG PLANT #1 (SOUTH PLANT)

Source Capacity/Throughput: 360.000 MCF/HR LANDFILL GAS

Conditions for this source occur in the following groups: 01 - RNG PLANTS

**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: 102

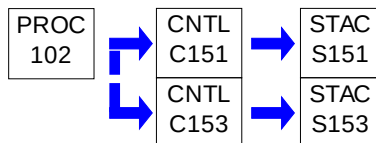
Source Name: RNG PLANT #2 (NORTH PLANT)

Source Capacity/Throughput:

360.000 MCF/HR

LANDFILL GAS

Conditions for this source occur in the following groups: 01 - RNG PLANTS

**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: C150

Source Name: THERMAL OXIDIZER #1

Source Capacity/Throughput:

163.500 MCF/HR

TAIL GAS

13.200 MCF/HR

Natural Gas

Conditions for this source occur in the following groups: 02 - THERMAL OXIDIZERS

CNTL
C150STAC
S150**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: C151

Source Name: THERMAL OXIDIZER #2

Source Capacity/Throughput:

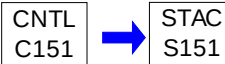
163.500 MCF/HR

TAIL GAS

13.200 MCF/HR

Natural Gas

Conditions for this source occur in the following groups: 02 - THERMAL OXIDIZERS

**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: C152

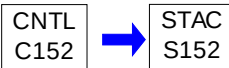
Source Name: FLARE #1

Source Capacity/Throughput:

360.000 MCF/HR

LANDFILL GAS

Conditions for this source occur in the following groups: 03 - 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: C153

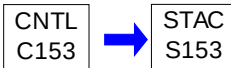
Source Name: FLARE #2

Source Capacity/Throughput:

360.000 MCF/HR

LANDFILL GAS

Conditions for this source occur in the following groups: 03 - 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: 01 - RNG PLANTS

Group Description: RNG Plants #1 and #2

Sources included in this group

ID	Name
101	RNG PLANT #1 (SOUTH PLANT)
102	RNG PLANT #2 (NORTH PLANT)

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

(a) The throughput of landfill gas being processed by each RNG Plant shall not exceed 3,153.6 million standard cubic feet of landfill gas per 12-month rolling period.

(b) The necessity of this requirement shall be re-evaluated prior to incorporating the plan approval into an operating permit.

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) For each RNG Plant, the permittee shall implement a leak detection and repair (LDAR) program to monitor all equipment (i.e. valves, flanges, fittings, and vessels), both indoors and outdoors, upstream from the pressure swing adsorption stage of the membrane separation skid for fugitive emissions of VOC. The permittee shall conduct monitoring using either an OGI camera, a gas leak detector that meets the requirements of 40 CFR Part 60, Appendix A-7, Method 21, or other leak detection methods approved by the DEP's Division of Source Testing and Monitoring.

(b) No later than 60 days after initial startup or each RNG Plant, the permittee shall perform the initial monitoring for fugitive emissions. Thereafter, monitoring shall be performed on a quarterly basis.

(c) A leak is defined as:

- (1) Any positive indication, whether audible, visual, or odorous, determined during monitoring inspection;
- (2) Any visible emissions detected by an OGI camera calibrated according to 40 CFR § 60.18 and a detection sensitivity level of 60 grams/hour; or,
- (3) A concentration of 500 ppm calibrated as methane or greater detected by an instrument reading.

[Note: The RNG Plants are not subject to 40 CFR Part 60. Method 21 is only being used as a pre-established method for implementing an LDAR program.]

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

The permittee shall monitor (through sampling and analysis) on a bi-weekly basis the hydrogen sulfide (H₂S) concentration at the exit of the fixed bed hydrogen sulfide scavenging system for each RNG Plant.

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

Each RNG Plant shall be equipped with a flow guage to monitor the amount of landfill gas processed by each RNG Plant, along with a meter to continuously monitor or sample at discrete time intervals, not to exceed more than 15 minutes between intervals, the methane content of the landfill gas.

**SECTION E. Source Group Plan Approval Restrictions.****# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Prior to incorporating the plan approval into an operating permit, the permittee shall provide to DEP the monitoring parameters associated with the pressure swing adsorption stage of the membrane separation skid for ensuring that VOC in the landfill gas has been removed.

IV. RECORDKEEPING REQUIREMENTS.**# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall always maintain on site documentation for performing and implementing the LDAR program at this facility.

(b) The permittee shall maintain records for each fugitive emissions monitoring survey. Records shall include the following:

- (1) The date, start time, and end time of the survey;
- (2) The name of the operator(s) performing the survey;
- (3) The monitoring instrument used;
- (4) Any deviations from the monitoring plan or a statement that there were none; and,
- (5) Documentation of each fugitive emission including:
 - (i) The identification of each component from which fugitive emissions were detected;
 - (ii) The instrument reading of each fugitive emissions component that meets the definition of a leak, as identified herein this permit;
 - (iii) The status of repair of each component including:
 - (A) The repair methods applied in each attempt to repair the component;
 - (B) The tagging or digital photographing of each component not repaired during the monitoring survey in which the fugitive emissions were discovered;
 - (C) The reasons a component was placed on delay of repair;
 - (D) The date of successful repair of the component; and,
 - (E) The information on the instrumentation or method used to resurvey the component after repair, if it was not completed during the monitoring survey in which the fugitive emissions were discovered.

(c) In addition to fugitive emissions observed during periodic monitoring surveys, the permittee shall document in the same way any other leaks that are detected that may result in emissions of VOC.

(d) In each case where leaks occur, the permittee shall calculate emissions using appropriate emission factors. For estimating emissions, the permittee shall assume the leak occurred after the last time a monitoring survey was performed. These emissions are to be included with monthly emissions records.

007 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall record the following on a monthly basis:

- (a) The amount of landfill gas processed by each RNG Plant, in standard cubic feet; and,
- (b) The monthly average methane content of landfill gas entering each RNG Plant.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall always maintain on-site training records for designated facility operators that are trained to respond to fugitive emission leaks and repair them.

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Prior to incorporating the plan approval into an operating permit, the permittee shall provide to DEP a recordkeeping format that will be implemented to demonstrate compliance with the monitoring parameters associated with the pressure swing

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

adsorption stage of the membrane separation skid.

010 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Bi-weekly sampling results of the hydrogen sulfide (H₂S) concentration at the exit of the fixed bed hydrogen sulfide scavenging system for each RNG Plant.

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

- (a) Each RNG Plant shall not be operated unless its respective control devices are operational.
- (b) All landfill gas entering each RNG plant shall be processed in the fixed bed hydrogen sulfide scavenging system, for the removal of hydrogen sulfide (H₂S).
- (c) Pertaining to each RNG Plant, the H₂S concentration at the exit of the fixed bed hydrogen sulfide scavenging system shall not exceed 20 ppm.
- (d) Valves, flange connections, instrument fittings, and vessels that have pressure relief vents shall be set to a pressure release setting sufficiently higher than the normal pressure in the gas lines. Facility operators shall conduct daily walk throughs to look for any abnormal operating conditions.
- (e) Each RNG Plant shall always have on site a designated facility operator that is trained to respond to fugitive emission leaks and to be able to repair them.

012 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Prior to incorporating the plan approval into an operating permit, the permittee shall provide to DEP work practice standards that the pressure swing adsorption stage of the membrane separation skid will comply with to ensure that VOC are removed from the landfill gas.

013 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

- (a) Any leak detected from a fugitive emission component shall be repaired by the owner or operator of the facility as expeditiously as practicable. A first attempt at repair shall be attempted within 5 calendar days of detection, and repair shall be completed no later than 15 calendar days after the leak is detected unless the owner or operator must purchase parts, in which case, the repair shall be completed no later than 10 calendar days after the receipt of the purchased parts.
- (b) Once a fugitive emission component has been repaired or replaced, the permittee shall resurvey the component as soon as practicable, but no later than 30 calendar days after the leak is repaired.
 - (1) For repairs that cannot be made during the monitoring survey when the leak is initially found, either a digital photograph shall be taken of the component or the component shall be tagged for identification purposes.
 - (2) A leak is considered repaired if:
 - (i) There are no detectable emissions consistent with Section 8.3.2 of 40 CFR Part 60, Appendix A-7, Method 21;
 - (ii) A leak concentration of less than 500 ppm as methane is detected when the gas leak detector probe inlet is placed at the surface of the component;
 - (iii) There is no visible leak image when using an OGI camera calibrated at a detection sensitivity level of 60 grams/hour; or,
 - (iv) There is no bubbling at the leak interface using a soap solution bubble test specified in Section 8.3.3 of 40 CFR Part 60, Appendix A-7, Method 21.

**SECTION E. Source Group Plan Approval Restrictions.****# 014 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Monitoring equipment used in association with the LDAR program shall be operated and maintained in accordance with manufacturer-recommended procedures, as required by the test method, or a Department-approved method.

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 E. Source Group Plan Approval Restrictions.**

Group Name: 02 - THERMAL OXIDIZERS

Group Description: Thermal Oxidizers #1 and #2

Sources included in this group

ID	Name
C150	THERMAL OXIDIZER #1
C151	THERMAL OXIDIZER #2

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee may not permit the emission into the outdoor atmosphere of filterable particulate matter in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]**General**

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

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

Emissions from each thermal oxidizer shall not exceed the following emission rates:

- (a) Nitrogen Oxides (NO_x) – 0.06 lbs/MMBtu, 1.27 lbs/hr, and 5.57 tons per 12-month rolling period
- (b) Carbon Monoxide (CO) – 0.20 lbs/MMBtu, 4.24 lbs/hr, and 18.57 tons per 12-month rolling period
- (c) Particulate Matter (PM) – 0.25 lbs/hr and 1.08 tons per 12-month rolling period
- (d) Volatile Organic Compounds (VOC) – 0.82 lbs/hr and 3.57 tons per 12-month rolling period
- (e) Sulfur Oxides (SO_x) – 0.56 lbs/hr and 2.45 tons per 12-month rolling period
- (f) Hydrogen Chloride (HCl) – 0.58 lbs/hr and 2.52 tons per 12-month rolling period
- (g) Total Hazardous Air Pollutants (HAP) - 2.91 tons per 12-month rolling period

Throughput Restriction(s).**# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) Each thermal oxidizer shall be restricted to burning 115.632 million cubic feet of natural gas per 12-month rolling period.
- (b) The tail gas being sent to each thermal oxidizer shall be restricted to 1,432.26 MMscf per 12-month rolling period.

Control Device Efficiency Restriction(s).**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The thermal oxidizer associated with each RNG Plant shall have a 98 percent destruction efficiency for non-methane organic compound emissions or a maximum concentration of 20 ppmv, reported on a dry basis as hexane, at 3% oxygen.

**SECTION E. Source Group Plan Approval Restrictions.****II. TESTING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) Within 180 days of startup of the first constructed RNG Plant, the permittee shall perform stack testing on the respective thermal oxidizer while the RNG Plant operates at maximum capacity. Stack testing shall be performed using Department approved procedures and in accordance with the provisions of EPA methodology or other Department approved methodology and 25 Pa. Code Chapter 139.
- (b) The stack test shall determine the short term emission rates of NO_x (lb/MMBtu and lbs/hr), CO (lb/MMBtu and lbs/hr), PM (filterable - gr/dscf; filterable and condensable - lbs/hr), VOC (lbs/hr, as hexane), total SO_x (lbs/hr), and HCl (lbs/hr) from the thermal oxidizer. If emissions of VOC exceed 20 ppm (as hexane, on a dry basis) at 3% oxygen, then the permittee shall also perform a destruction efficiency test on the thermal oxidizer for the destruction of VOC.
- (c) 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.
- (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) During the stack test, the following process data, at a minimum shall be collected every 15 minutes:
- (1) The amount of landfill gas processed by the RNG Plant.
 - (2) The methane content of the landfill gas.
 - (3) The amount of natural gas consumed by the thermal oxidizer.
 - (4) The amount of tail gas processed by the thermal oxidizer.
 - (5) The methane content of the tail gas being processed by the thermal oxidizer.
 - (6) The temperature of the thermal oxidizer combustion chamber.
- (f) Within sixty (60) days after the source test(s), an electronic copy of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval. The permittee shall include with the report results from the last two H₂S samples taken at the exit of the fixed bed hydrogen sulfide scavenging system.
- (g) 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.

III. MONITORING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Each thermal oxidizer shall be equipped with a fuel meter to monitor the amount of natural gas consumed by the thermal oxidizers.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The thermal oxidizers shall each be equipped with a thermocouple to continuously monitor the combustion chamber temperature. The thermocouple shall be placed such that it is not directly impacted by the thermal oxidizer burner.

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The thermal oxidizers shall have the means to observe the burner flame to determine that they are operating when processing waste stream gases from the RNG Plants.

010 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Prior to each thermal oxidizer, the permittee shall install a flow meter to monitor the flow rate of tail gas being sent to the thermal oxidizer, along with a meter to continuously monitor or sample at discrete time intervals, not to exceed more than 15 minutes between intervals, the methane content of the tail gas.

**SECTION E. Source Group Plan Approval Restrictions.****IV. RECORDKEEPING REQUIREMENTS.****# 011 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall continuously record the temperature of each thermal oxidizer combustion chamber. Temperature readings shall be recorded every 15 minutes, or more frequently.

012 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall record the following from each thermal oxidizer on a monthly basis and as a 12-month rolling sum:

- (a) The amount of natural gas consumed;
- (b) The amount of tail gas processed;
- (c) The average monthly methane content of tail gas processed; and,
- (d) Emissions of NO_x, CO, PM, VOC, SO_x, HCl, and total HAP.

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.**# 013 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) The thermal oxidizers shall operate at a minimum temperature of 1,600 °F when processing waste stream gases.
- (b) The thermal oxidizers shall always be operated with a flame present. The thermal oxidizers shall each be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs.
- (c) The temperature set point referenced in (a), above, may be reduced if the permittee can demonstrate through stack testing that at a lower temperature the thermal oxidizers can still comply with all the applicable emission limits and the minimum destruction efficiency requirements.

VII. ADDITIONAL REQUIREMENTS.**# 014 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The thermal oxidizers shall be manufactured by John Zink, Model ZBRID, with a rated capacity of 21.2 MMBtu/hr, each.

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

Group Name: 03 - FLARES

Group Description: Flares #1 and #2

Sources included in this group

ID	Name
C152	FLARE #1
C153	FLARE #2

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §123.13]****Processes**

The permittee may not permit the emission into the outdoor atmosphere of filterable particulate matter in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §123.21]**General**

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

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

Emissions from each flare shall not exceed the following emission rates:

- (a) Nitrogen Oxides (NO_x) – 0.15 lb/MMBtu, 26.78 lbs/hr, and 12.32 tons per 12-month rolling period
- (b) Carbon Monoxide (CO) – 0.20 lbs/MMBtu, 35.70 lbs/hr, and 16.42 tons per 12-month rolling period
- (c) Particulate Matter (PM) – 3.04 lbs/hr and 1.40 tons per 12-month rolling period
- (d) Volatile Organic Compounds (VOC) – 1.63 lbs/hr and 0.75 tons per 12-month rolling period
- (e) Sulfur Oxides (SO_x) – 1.52 lbs/hr and 0.70 tons per 12-month rolling period
- (f) Hydrogen Chloride (HCl) – 1.31 lbs/hr and 0.60 tons per 12-month rolling period
- (g) Total Hazardous Air Pollutants (HAP) – 0.66 tons per 12-month rolling period

Throughput Restriction(s).**# 004 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The total heat input for each flare shall be restricted to 164,235.46 MMBtu per 12-month rolling period.

[The throughput limit, above, may be re-evaluated, pending stack testing while processing off-spec gas.]

Control Device Efficiency Restriction(s).**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The flare associated with each RNG Plant shall have a 98 percent destruction efficiency for non-methane organic compound emissions or a maximum concentration of 20 ppmv, reported on a dry basis as hexane, at 3% oxygen.

**SECTION E. Source Group Plan Approval Restrictions.****II. TESTING REQUIREMENTS.****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) Within 180 days of startup of the first constructed RNG Plant, the permittee shall perform stack testing on the respective flare while the RNG Plant operates at maximum capacity. Stack testing shall be performed using Department approved procedures and in accordance with the provisions of EPA methodology or other Department approved methodology and 25 Pa. Code Chapter 139.
- (b) The stack test shall determine the short term emission rates of NO_x (lb/MMBtu and lbs/hr), CO (lb/MMBtu and lbs/hr), PM (filterable - gr/dscf; filterable and condensable - lbs/hr), VOC (lbs/hr, as hexane), total SO_x (lbs/hr), and HCl (lbs/hr) from the flare. If emissions of VOC exceed 20 ppm (as hexane, on a dry basis) at 3% oxygen, then the permittee shall also perform a destruction efficiency test on the flare for the destruction of VOC.
- (c) 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.
- (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) During the stack test, the following process data, at a minimum shall be collected every 15 minutes:
- (1) The amount of landfill gas processed by the RNG Plant.
 - (2) The methane content of the landfill gas processed by the RNG Plant.
 - (3) The amount of landfill gas/off-spec gas consumed by the flare.
 - (4) The methane content of the landfill gas/off-spec gas consumed by the flare.
 - (5) The temperature of the flare combustion chamber.
- (f) Within sixty (60) days after the source test(s), an electronic copy of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval. The permittee shall include with the report results from the last two H₂S samples taken at the exit of the fixed bed hydrogen sulfide scavenging system.
- (g) 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.

III. MONITORING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The flares shall each be equipped with a thermocouple to continuously monitor the combustion chamber temperature. The thermocouple shall be placed such that it is not directly impacted by the flare burner.

008 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

- (a) Each flare shall be equipped with a flow meter to monitor the amount of landfill gas/off-spec gas consumed by the flares each day that the flares are operated.
- (b) The permittee shall continuously monitor or sample at discrete time intervals, not to exceed more than 15 minutes between intervals, the methane content of the landfill gas/off-spec gas being processed by the flares, when operated.

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The flares shall have the means to observe the burner flame to determine that they are operating when processing landfill gas or off-spec gas.

IV. RECORDKEEPING REQUIREMENTS.**# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall continuously record the temperature of each flare combustion chamber, when the flares operate.

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

Temperature readings shall be recorded every 15 minutes, or more frequently.

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

- (a) The permittee shall record the amount of landfill gas/off-spec gas processed by each flare on a daily basis, when operated.
- (b) The permittee shall record the average daily methane content of landfill gas/off-spec gas processed by each flare on a daily basis, when operated.
- (c) The permittee shall calculate the heat input of each flare on a daily basis and then total the heat input of each flare on a monthly basis and as a 12-month rolling total.

012 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall calculate and record emissions of NO_x, CO, PM, VOC, SO_x, HCl, and total HAP from each flare on a monthly basis and as a 12-month rolling total.

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.**# 013 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

- (a) Each flare shall operate at a minimum temperature of 1,600 °F.
- (b) Flares may be allotted enough time to ramp up the temperature to 1,600 °F during startup.
- (c) The flares shall always be operated with a flame present. The flares shall each be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs.
- (d) The temperature set point referenced in (a), above, may be reduced if the permittee can demonstrate through stack testing that at a lower temperature the flares can still comply with all the applicable emission limits and the minimum destruction efficiency requirements.

VII. ADDITIONAL REQUIREMENTS.**# 014 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The flares shall be manufactured by John Zink, Model ZTOF, with a rated capacity of 182.16 MMBtu/hr, each.

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

Source Id	Source Description
C150	THERMAL OXIDIZER #1
Emission Limit	
0.200 Lbs/MMBTU	CO
4.240 Lbs/Hr	CO
18.570 Tons/Yr	Based on a 12-month rolling sum
2.910 Tons/Yr	Based on a 12-month rolling sum
0.580 Lbs/Hr	Hazardous Air Pollutants
2.520 Tons/Yr	Based on a 12-month rolling sum
0.060 Lbs/MMBTU	Hydrogen Chloride (Anhydrous)
1.270 Lbs/Hr	Hydrogen Chloride (Anhydrous)
5.570 Tons/Yr	Based on a 12-month rolling sum
0.560 Lbs/Hr	NOX
2.450 Tons/Yr	Based on a 12-month rolling sum
500.000 PPMV	Based on a 12-month rolling sum
0.040 gr/DRY FT3	Determined on a dry basis
0.250 Lbs/Hr	Applies to filterable PM only
1.080 Tons/Yr	TSP
0.820 Lbs/Hr	TSP
3.570 Tons/Yr	Based on a 12-month rolling sum
	VOC
	VOC
C151	THERMAL OXIDIZER #2
Emission Limit	
0.200 Lbs/MMBTU	CO
4.240 Lbs/Hr	CO
18.570 Tons/Yr	Based on a 12-month rolling sum
2.910 Tons/Yr	Based on a 12-month rolling sum
0.580 Lbs/Hr	Hazardous Air Pollutants
2.520 Tons/Yr	Based on a 12-month rolling sum
0.060 Lbs/MMBTU	Hydrogen Chloride (Anhydrous)
1.270 Lbs/Hr	Hydrogen Chloride (Anhydrous)
5.570 Tons/Yr	Based on a 12-month rolling sum
0.560 Lbs/Hr	NOX
2.450 Tons/Yr	Based on a 12-month rolling sum
500.000 PPMV	Based on a 12-month rolling sum
0.040 gr/DRY FT3	Determined on a dry basis
0.250 Lbs/Hr	Applies to filterable PM only
1.080 Tons/Yr	TSP
0.820 Lbs/Hr	TSP
3.570 Tons/Yr	Based on a 12-month rolling sum
	VOC
	VOC
C152	FLARE #1
Emission Limit	
0.200 Lbs/MMBTU	CO
16.420 Tons/Yr	Based on a 12-month rolling sum
35.700 Lbs/Hr	CO
0.660 Tons/Yr	Based on a 12-month rolling sum
	Hazardous Air Pollutants

**SECTION G. Emission Restriction Summary.**

Source Id	Source Description		
	0.600 Tons/Yr	Based on a 12-month rolling sum	Hydrogen Chloride (Anhydrous)
	1.310 Lbs/Hr		Hydrogen Chloride (Anhydrous)
	0.150 Lbs/MMBTU		NOX
	12.320 Tons/Yr	Based on a 12-month rolling sum	NOX
	26.780 Lbs/Hr		NOX
	0.700 Tons/Yr	Based on a 12-month rolling sum	SOX
	1.520 Lbs/Hr		SOX
	500.000 PPMV	Determined on a dry basis	SOX
	0.040 gr/DRY FT3	Applies to filterable PM only	TSP
	1.400 Tons/Yr	Based on a 12-month rolling sum	TSP
	3.040 Lbs/Hr		TSP
	0.750 Tons/Yr	Based on a 12-month rolling sum	VOC
	1.630 Lbs/Hr		VOC
C153	FLARE #2		
Emission Limit		Pollutant	
	0.200 Lbs/MMBTU		CO
	16.420 Tons/Yr	Based on a 12-month rolling sum	CO
	35.700 Lbs/Hr		CO
	0.660 Tons/Yr	Based on a 12-month rolling sum	Hazardous Air Pollutants
	0.600 Tons/Yr	Based on a 12-month rolling sum	Hydrogen Chloride (Anhydrous)
	1.310 Lbs/Hr		Hydrogen Chloride (Anhydrous)
	0.150 Lbs/MMBTU		NOX
	12.320 Tons/Yr	Based on a 12-month rolling sum	NOX
	26.780 Lbs/Hr		NOX
	0.700 Tons/Yr	Based on a 12-month rolling sum	SOX
	1.520 Lbs/Hr		SOX
	500.000 PPMV	Determined on a dry basis	SOX
	0.040 gr/DRY FT3	Applies to filterable PM only	TSP
	1.400 Tons/Yr	Based on a 12-month rolling sum	TSP
	3.040 Lbs/Hr		TSP
	0.750 Tons/Yr	Based on a 12-month rolling sum	VOC
	1.630 Lbs/Hr		VOC

Site Emission Restriction Summary

Emission Limit	Pollutant
----------------	-----------



SECTION G. Emission Restriction Summary.



SECTION H. Miscellaneous.



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