



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: May 13, 2020

Effective Date: May 13, 2020

Expiration Date: October 31, 2021

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. 48-00115A

Federal Tax Id - Plant Code: 84-1978156-01

Owner Information

Name: ARIA ENERGY EAST LLC
Mailing Address: 46280 DYLAN DRIVE, SUITE 200
NOVI, MI 48377

Plant Information

Plant: ARIA ENERGY EAST LLC
Location: 48 Northampton County 48924 Lower Saucon Township
SIC Code: 4922 Trans. & Utilities - Natural Gas Transmission

Responsible Official

Name: STEPHEN SMITH
Title: SR VP TECHNICAL SERVICES
Phone: (602) 330 - 3756

Plan Approval Contact Person

Name: STEPHEN SMITH
Title: SR VP TECHNICAL SERVICES
Phone: (602) 330 - 3756

[Signature] Mark J Wejkszner
MARK J. WEJKSZNER, NORTHEAST REGION AIR PROGRAM MANAGER





Plan Approval Description

Aria Energy East LLC is proposing a high BTU RNG processing facility designed to process up to 3,500 SCFM of landfill gas. The plant is being designed as a "closed loop" system, controlled by a thermal oxidizer (TO) unit that will be used to process the tail gas to destroy VOCs, HAPs and to control odors, along with a backup flare, storage tanks/vessels, and an emergency generator.



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

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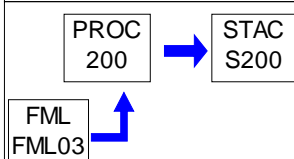
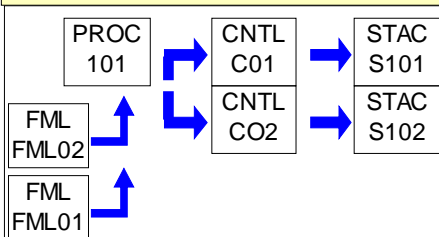
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**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
101	RNG REFINING PROCESS		
200	EMERGENCY GENERATOR		
400	STORAGE TANKS/VESSELS		
C01	THERMAL OXIDIZER		
CO2	BACKUP FLARE		
FML01	NATURAL GAS		
FML02	LANDFILL GAS		
FML03	DIESEL FUEL		
S101	STACK - THERMAL OXIDIZER		
S102	STACK - FLARE		
S200	STACK - EMERGENCY GENERATOR		

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 15 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(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(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 § 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**

The permittee may not 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.
- (g) Sources and classes of sources other than those identified in paragraphs (a)-(f), for which the operator has obtained a determination from the Department 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.

002 [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 Site Level Condition #001 (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

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

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 whose land the source is being operated.

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

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

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

(b) The limitations of section (a) shall not apply to a visible emission in any of the following instances:

- (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emission.
- (3) When the emission results from sources specified in Site Level Condition #001 (relating to prohibition of certain fugitive emissions).

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

The HAPs from the facility must never equal to or exceed 10 TPY of any single HAP and must never equal to or exceed 25 TPY of all aggregated HAPs, based on a 12-month rolling sum.

**SECTION C. Site Level Plan Approval Requirements****# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Total facility emissions from respective sources, including emissions during start-ups and shutdowns, shall not exceed the following limits during any consecutive a 12-month rolling period:

Facility Emission Limits (tons per year);

NOx 99.9

CO 99.9

VOC 49.9

PM10 99.9

PM2.5 99.9

SO2 99.9

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

If at any time the Department has cause to believe that air contaminant missions from the aforementioned source(s) may be in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the company shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notified the company that testing is required.

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).

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).

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

a) Any changes in the location of any sources, or changes in the process or control equipment would be considered a modification and would require the submittal of an amended application for plan approval in accordance with the provisions of 25 Pa. Code Section 127.11 and 127.12.

b) Any notification as a result of any condition herein should be directed to:

Air Quality Program Manager

2 Public Square

Wilkes-Barre, PA 18711-0790

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

The permittee, within one (1) hour of discovery of an occurrence, shall notify the Department (either by phone at (610) 861-2070 (Bethlehem), facsimile at (610) 861-2072, or e-mail (to the Regional Air Manager)) of any malfunction, recordkeeping or reporting errors, or other possible non-compliance issues, which reasonably is believed to either result in or possibly result in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulations contained in Article III of the Rules and Regulations of the Department of Environmental

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

Protection.

A written report shall be submitted to the Department within five working days following the initial notification describing the incident and the corrective actions taken or to be taken. The Department may take enforcement action for any violations of the applicable standards.

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee 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 chemicals 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, oil, water or suitable chemicals 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 other means.

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

The sources within this plan approval may only be operated as long as the associated air pollution control device(s) are operated and maintained in accordance with the specifications set forth in the respective plan approval(s), and the application(s) submitted for said plan approval(s) (as approved by the Department), and in accordance with any conditions set forth herein.

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

The company shall maintain and operate the sources in accordance with good engineering practices.

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

The company shall not impose conditions upon or otherwise restrict the Department's access to the sources and/or any associated air cleaning device(s) and shall allow the Department to have access at any time to the sources and associated air cleaning device(s) 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.

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 REFINING PROCESS

Source Capacity/Throughput:

Conditions for this source occur in the following groups: GROUP 1

**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.

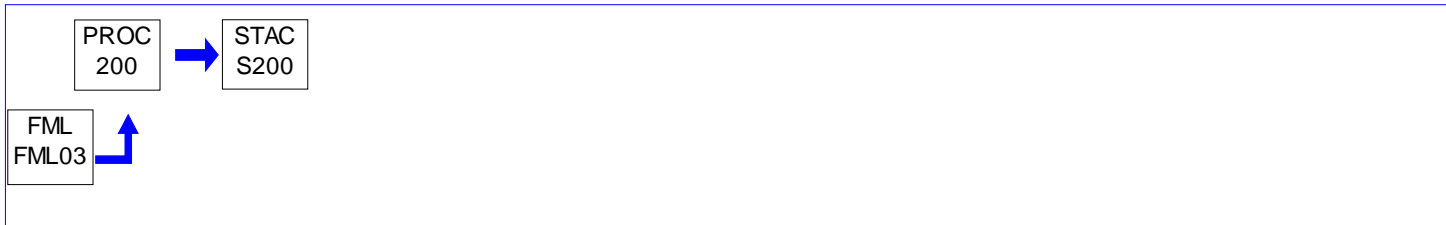
No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

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

Source ID: 200

Source Name: EMERGENCY GENERATOR

Source Capacity/Throughput:

**I. RESTRICTIONS.****Emission Restriction(s).**

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Pursuant to the Best Available Technology (BAT) provisions of 25 Pa. Code Section 127.1, the permittee shall not allow the emission into the outdoor atmosphere of total particulate matter (TPM) from emergency generator in a manner that the concentration of TPM in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

002 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall not allow the emission into the outdoor atmosphere of sulfur oxides (SOx) in a manner that the concentration of the SOx (expressed as SO₂) in the effluent gas exceeds 500 parts per million, by volume, dry basis.

Fuel Restriction(s).

003 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The permittee shall only use diesel fuel in the emergency generator.

Operation Hours Restriction(s).

004 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The Emergency Generator shall not operate more than 500 hours during any consecutive 12-month period.

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.

005 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The engine shall be equipped with a non-resettable meter for hours of operation prior to startup and the meter shall be operated at all times the source(s) is in operation.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

The company shall keep records of hours of operations and fuel usage for the engine on a 12-month rolling sum basis.

**SECTION D. Source Level Plan Approval Requirements****V. REPORTING REQUIREMENTS.****# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) Any information required to be submitted as part of this plan approval should be submitted to the attention of Air Quality Program Manager, Air Quality Program, Northeast Regional Office, 2 Public Square, Wilkes-Barre, PA 18701-1915.

(b) In accordance with 40 CFR 60.4 copies of all requests, reports, applications submittals and other communications shall be forwarded to both EPA and the Department at the addresses listed below unless otherwise noted.

Air Quality Program Manager
Pa DEP, Air Quality Program
Northeast Regional Office
2 Public Square
Wilkes-Barre, PA 18701-1915

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

(c) Issuance of an Operating Permit is contingent upon satisfactory compliance with the plan approval conditions, upon the control device being installed, tested, and operated as stated within the application, and upon satisfactory demonstration that the emissions from the source(s) will not be in violation of applicable Rules and Regulations of the Department.

VI. WORK PRACTICE REQUIREMENTS.

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

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

The Diesel fueled engine is subject to 40 CFR, Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and the permittee shall comply with all applicable requirements of the subpart.

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

The Diesel fueled engine is subject to 40 CFR, Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and the permittee shall comply with all applicable requirements of the subpart.

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

Source ID: 400

Source Name: STORAGE TANKS/VESSELS

Source Capacity/Throughput:

I. RESTRICTIONS.

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

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.

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

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).

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.**# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Storage tanks/vessels shall be:

- a. operated in such a manner as not to cause excessive air pollution.
- b. operated and maintained in a manner consistent with good operating and maintenance practices.
- c. operated and maintained in accordance with the manufacturer's specifications.

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: GROUP 1

Group Description: RNG Processing

Sources included in this group

ID	Name
101	RNG REFINING PROCESS
C01	THERMAL OXIDIZER
CO2	BACKUP FLARE

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

Pursuant to the Best Available Technology provision of 25 PA Code, Chapter 127, the thermal oxidizer (TO) shall meet the following limitations:

The control system shall have a minimum non-methane organic carbon (NMOC) destruction efficiency of 98% by weight or the concentration of NMOC in the outlet shall be less than 20 ppmv, reported on a dry basis as hexane at 3% oxygen.

002 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the Best Available Technology provision of 25 PA Code, Chapter 127, the facility is subject to the following air contaminant emission limitations:

a. Total Particulate (including PM10)--- 0.04 grains per dscf being discharged to the atmosphere from the Thermal Oxidizer.

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

Pursuant to the provision of 25 PA Code, Chapter 123, Section 123.31, the permittee may not permit the emission into the outdoor atmosphere of any malodorous air contaminants from any operation related to any sources covered by the plan approval in such manner that the malodors are detectable outside the property of the person on whose land the source is being operated

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

1. Source tests shall be conducted on the Thermal Oxidizer within 180 days after start-up to demonstrate: (a) either the destruction/removal efficiency (DRE) of at least 98% (by weight) for total nonmethane organic compounds (NMOCs) or a reduction in the NMOC concentration of the gas at the Thermal Oxidizer exit to 20 PPM or less as hexane by volume, dry basis at 3 % O₂; and (b) NOX (measured as NO₂ as ppmvd). The Department reserves the right to require the owner or operator to conduct further tests at any time after the initial compliance tests.

2. At least sixty (60) calendar days prior to commencing an emission testing program required by this permit, a test protocol shall be submitted to the Department's Division of Source Testing and Monitoring and the appropriate Regional Office for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

3. At least fifteen (15) calendar days prior to commencing an emission testing program required by this permit, written notification of the date and time of testing shall be provided to the Department's appropriate Regional Office. Written notification shall also be sent to the Department's Bureau of Air Quality, Division of Source Testing and Monitoring. The notification shall not be made without prior receipt of a protocol acceptance letter from the Department. The Department is under no obligation to accept the results of any testing performed without adequate advance written notice to the Department of such testing. In addition, the emissions testing shall not commence prior to receipt of a protocol acceptance letter from the Department.

4. A complete test report shall be submitted to the Department no later than sixty (60) calendar days after completion of the

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

on-site testing portion of an emission test program.

5. A complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or non-compliance with all applicable permit conditions.

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

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

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

Equipment shall be installed to measure and record the inlet plant flow, the waste gas and natural gas flow rates to the Thermal Oxidizer, and the process and waste gas flow rates to the flare.

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

The company shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of this operating permit. The file shall include, but not be limited to all air pollution control systems performance evaluations, records of calibration checks, adjustments to sources and control devices, and maintenance performed on all equipment, which is subject to this operating permit. All measurements, records and other data required to be maintained by the company shall be retained for at least five (5) years following the date on which such measurements, records or data are recorded.

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

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

(a) Temperature monitoring devices equipped with a continuous recorder and having an accuracy of (+/-) 1 percent of the temperature being measured expressed in degrees Celsius or degrees Fahrenheit (+/-) 0.5°C or (+/-) 0.9°F, whichever is greater.

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

1. Any notification as a result of any condition herein should be directed to:

Mark J Wejkszner
Air Quality Program Manager
Department of Environmental Protection
2 Public Square
Wilkes-Barre, Pa 18701-1915

VI. WORK PRACTICE REQUIREMENTS.**# 010 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The company shall install a temperature control and monitoring system to ensure the thermal oxidizer is operated in accordance with the terms specified in the operating permit application, the regulations and this operating permit. The monitoring equipment shall be installed, calibrated, operated, and maintained according to the vendor's specifications at all times the control devices are in use.

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

The Thermal Oxidizer shall always be operated with a flame present. The Thermal Oxidizer shall be equipped with an

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

automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During the restart or start-up, the Thermal Oxidizer will be designed to provide sufficient flow of auxiliary fuel to the burner such that unburned landfill gases are not emitted to the atmosphere.

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

The Thermal Oxidizer shall be equipped with an automatic pilot ignition source using an auxiliary fuel (e.g., propane/natural gas).

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

The Thermal Oxidizer shall be operated such that there are no visible flames during normal operation.

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

The company shall maintain and operate the air pollution control equipment and sources in accordance with good engineering practice.

015 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The aforementioned source(s) may only be operated as long as the associated air pollution control devices are operated and maintained in accordance with the specifications set forth in the respective operating permit(s), and the application(s) submitted for said operating permit(s) (as approved by the Department), and in accordance with any conditions set forth herein.

016 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the Best Available Control Technology provisions of 25 Pa. Code Section 127.12(a)(5) of Chapter 127 of the Rules and Regulations of the Department of Environmental Protection the following requirements are hereby established for Thermal Oxidizer:

- (1) Thermal Oxidizer should be designed such that there are no visible flames during normal operations.
- (2) 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.
- (3) Thermal Oxidizer should maintain, for each 3-hour period of operation based on rolling hourly data, 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 destruction/removal was demonstrated. If there has been no performance test, then a minimum temperature of 1500°F (815.6°C) will be necessary.
- (4) Thermal Oxidizer may be operated at a lower temperature provided that the company has demonstrated, by a stack test that the flare will achieve the 98% destruction/removal efficiency or 20 ppm_{dv}, measured as hexane and corrected to 3% oxygen, at the lower temperature and complies with all the emission limits established in the plan approval. If compliance has been demonstrated at the lower temperature, the permittee should submit a plan approval application to make the lower operating temperature enforceable. Operation at the lower temperature cannot occur until approved by DEP. Under no circumstance will DEP approve an operating temperature less than 1200°F.
- (5) The Thermal Oxidizer should be equipped with an automatic pilot ignition source using an auxiliary fuel (e.g. propane or natural gas).
- (6) The Thermal Oxidizer should be operated with a flame present at all times. The Thermal Oxidizer should be equipped with an automatic shut-off mechanism designed to immediately stop the flow of gases when a flame-out occurs. During the restart or start-up, there should be sufficient flow of auxiliary fuel to the burners such that unburned landfill gases are not emitted to the atmosphere.

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

(7) The flue gas temperature of the Thermal Oxidizer should be measured and recorded in the combustion zone as per the manufacturer's specifications based on the flow into the Thermal Oxidizer. The temperature in the combustion zone should be used to determine compliance with the minimum temperature requirement. The temperature monitoring device should meet the 40 C.F.R. Section 60.756(b) requirements.

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

Group Name: GROUP 2
 Group Description: Backup Flare
 Sources included in this group

ID	Name
CO2	BACKUP FLARE

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

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

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

The backup flare shall not operate more than 3,000 hours per year, based on a 12-month rolling sum.

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

If, at any time, the Department has cause to believe that air contaminant emissions from the flare are in excess of the limitations specified in, or established pursuant to, any applicable regulation contained in 25 Pa. Code, Subpart C, Article III, the Department may require the permittee to conduct tests deemed necessary by the Department to determine the actual emission rate(s). The permittee shall perform such tests in accordance with applicable provisions of 25 Pa. Code, Chapter 139 (relating to sampling and testing) and in accordance with any restrictions or limitations established by the Department within one hundred and eighty (180) days of the date the Department notifies the permittee, in writing, of the testing requirement.

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).

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).

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

The flare shall be operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this permit.

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

The flare shall be operated and maintained in a manner consistent with good operating and maintenance practices.

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

- a. The flare will be designed in accordance with 40 CFR 60.18
- b. The flare will be equipped with a flow meter and data recorder.
- c. The flare will be equipped with a continuous natural gas pilot ignition system.
- d. The flare will be equipped with a flame sensing device and automatic shutoff valve designed to close immediately when a flame is not detected.
- e. The candlestick flare will be located with a natural visible screening, including vegetation and topography, to minimize off-site visual impacts.



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.**

Source ID 400 - Storage tanks/vessels shall consist of the following:

- One (1) 376 gallon diesel storage tank
- one (1) 2000 gallon used oil storage tank
- one (1) 15000 gallon condensater tank (if needed)
- one (1) 2000 gallon Oil/Water separator tank



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