

24 February 2014

Mr. Kevin Crossman  
Operations Manager  
Rhode Island LFG Genco, LLC  
75 Shun Pike  
Johnston, RI 02919

Dear Mr. Crossman:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your minor source permit application for the installation and operation of a temporary thermal oxidizer for use at your facility located at the GCC site at 75 Shun Pike, Johnston, Rhode Island.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval No. 2246).

Be advised that this approval is based on an evaluation of applicable state and federal air pollution control rules and regulations. This approval does not relieve you from complying with any applicable requirements of the Town of Johnston.

If there are any questions concerning this permit, please contact me at 401-222-2808, extension 7415 or at [stephen.stamand@dem.ri.gov](mailto:stephen.stamand@dem.ri.gov).

Sincerely,

Stephen G. St. Amand  
Air Quality Specialist  
Office of Air Resources

cc: Michael North - GZA  
Town of Johnston Building Official

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES**

**MINOR SOURCE PERMIT**

Rhode Island LFG Genco, LLC

**APPROVAL NO. 2246**

**Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:**

*Rhode Island LFG Genco, LLC*

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**For the following:**

*Installation of a Pollution Systems thermal oxidizer, Model No. CEF-5. This is a temporary installation.*

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**Located at:** *75 Shun Pike, Johnston. Adjacent to GCC Main Flare*

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**This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Rhode Island LFG Genco, LLC* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.**

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**Douglas L. McVay, Chief  
Office of Air Resources**

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**Date of issuance**

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

**Rhode Island LFG Genco, LLC**

**APPROVAL NO. 2246**

A. Emission Limitations

1. All emissions generated from the bioreactor vent shall be captured, contained and routed to a control system designed and operated to reduce NMOC by 98% by weight, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98% by weight or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen.
2. The destruction efficiency of the temporary thermal oxidizer for VOC shall be at least 98% by weight.
3. Odors

Any air contaminant or combination of air contaminants discharged to the atmosphere from the temporary thermal oxidizer shall not create an objectionable odor beyond the property line of this facility. Odor evaluations shall be conducted according to the provisions of Air Pollution Control Regulation No. 17.

4. Opacity

Visible emissions from the temporary thermal oxidizer shall not exceed 10% opacity (six minute average).

B. Operating Requirements

1. The operating temperature of the temporary thermal oxidizer shall be maintained at or above 1500°F whenever the bioreactor vent is being discharged to the oxidizer, or at a lower temperature that has been demonstrated in the most recent compliance test to achieve the required destruction efficiency.
2. The temporary thermal oxidizer shall be operated according to its design specifications whenever the bioreactor vent is being discharged to the oxidizer.
3. If the temporary thermal oxidizer is shut down for maintenance or repair, the bioreactor vent shall be discharged to the Enclosed flare (Backup flare) as permitted under RI-PSD-8 issued to Rhode Island LFG Genco, LLC.

### C. Monitoring Requirements

1. The operating temperature of the temporary thermal oxidizer shall be continuously monitored and recorded. The equipment to continuously monitor the operating temperature of the oxidizer must have an accuracy of +/-1 percent of the temperature being monitored in degrees Celsius or +/-1 degree Celsius, whichever is greater.
2. The equipment to continuously monitor the operating temperature of the temporary thermal oxidizer must be calibrated and maintained according to the manufacturer's specifications. The calibration of the chart recorder, data logger or temperature indicator must be verified once per year or the chart recorder, data logger or temperature indicator must be replaced.

### D. Testing Requirements

1. Within 180 days of startup of the temporary thermal oxidizer, emissions testing shall be conducted to demonstrate compliance with condition A.1 of this permit.
2. If the temporary thermal oxidizer has been removed from the site on or before 180 days of start up, emissions testing is not required.
3. An emissions testing protocol shall be submitted to the Office of Air Resources at least 60 days prior to the performance of any emissions test. The owner/operator shall provide the Office of Air Resources at least 60 days prior notice of any emissions test.
4. All test procedures used for emissions testing shall be conducted in accordance with Appendix A of 40 CFR 60 or another method approved by the Office of Air Resources and U.S. Environmental Protection Agency (EPA) prior to the performance of any emissions tests.
5. The owner/operator shall install any and all test ports or platforms necessary to conduct the required emissions testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment.
6. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations or air quality standards.
7. A final report of the results of emission testing shall be submitted to the Office of Air Resources no later than 60 days following completion of the testing.
8. All emission testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the testing without an observer present.

E. Recordkeeping and Reporting Requirements

1. The owner/operator shall collect, record and maintain all of the following information each month for the temporary thermal oxidizer:
  - a. A log of operating time for the temporary thermal oxidizer and monitoring equipment;
  - b. A maintenance log for the temporary thermal oxidizer and the monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages; and
  - c. The operating temperature of the temporary thermal oxidizer.
2. Any breakdown or malfunction of an air pollution control system while controlling emissions from the bioreactor vent that result in the emission of uncontrolled bioreactor vent gas shall be reported to the Office of Air Resources within one hour after the occurrence. A written report of any breakdown or malfunction shall be submitted within five (5) business days of the breakdown or malfunction. The following information shall be provided in each report:
  - a. The date the breakdown or malfunction occurred
  - b. The suspected reason for the malfunction
  - c. The corrective action taken
  - d. The time needed to make repairs

A copy of each report shall be kept at the facility
3. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
4. The owner/operator shall notify the Office of Air Resources in writing of the date of actual start up of the temporary thermal oxidizer, no later than 15 days such date.
5. The owner/operator shall notify the Office of Air Resources in writing of the date of removal of the temporary thermal oxidizer, no later than 30 days after such date.
6. The owner/operator shall maintain a record of all measurements, performance evaluations, calibration checks and maintenance or adjustments for each continuous monitor.
7. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to the flare that would:
  - a. Change the representation of the device in the permit application.

- b. Alter the applicability of any state or federal air pollution rules or regulations.
- c. Result in the violation of any terms or conditions of the permit.
- d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any change, which may result in an increased emission rate of any air contaminant, shall be subject to the approval of the Director.

8. Deviations from permit conditions, including those attributable to upset conditions as defined in this permit, shall be reported, in writing, within five (5) business days of the deviation, to the Office of Air Resources. A copy of any such report shall be sent to the USEPA Region 1. Reports shall describe the probable cause of such deviation, and any corrective actions or preventive measures taken.
9. All records required as a condition of this approval shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

#### F. Malfunctions

1. Malfunction means a sudden and unavoidable breakdown of process or control equipment. In the case of a malfunction of any pollution control system, all reasonable measure shall be taken to assure resumption of the designed control efficiency system is expected or may reasonably be expected to continue for longer than 24 hours and if the owner or operator wishes to operate the source on which it is installed at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode, as amended. Such petition shall include, but is not limited to, the following:
  - a. Identification of the specific air pollution control system and source on which it is installed;
  - b. The expected period of time that the air pollution control system will be malfunctioning or out of service;

- c. The nature and quantity of air contaminants likely to be emitted during said period;
  - d. Measures that will be taken to minimize the length of said period;
  - e. The reasons that it would be impossible or impractical to cease the source operation during said period.
2. The owner/operator may seek to establish that a malfunction of the air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the owner/operator must demonstrate to the Office of Air Resources that:
- a. The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation, or operator error;
  - b. The malfunction was not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
  - c. Repairs necessary to bring the air pollution control system back to operating at its design control efficiency were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable. Any parts or material needed should be shipped overnight where possible or practical.
  - d. All possible steps were taken to minimize emissions during the period of time that the repairs were performed.
  - e. Emissions during the period of time that the repairs were performed will not:
    - (1) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and
    - (2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.
  - f. The reasons that it would be impossible or impractical to cease the source operation during said period.
  - g. The owner/operator's actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

This demonstration must be provided to the Office of Air Resources, in writing, within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

G. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the equipment shall be designed, constructed and operated in accordance with the representation of the facility in the permit application.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.
4. The emission and dispersion characteristics of all sources of any listed toxic air contaminant at the facility shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions do not cause an impact, at or beyond the property line of the facility, which exceeds the Acceptable Ambient Level for that substance. The Office of Air Resources, in its sole discretion, may reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure compliance with Air Pollution Control Regulation No. 22.