



**STATE OF RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

In Re: Proposal to issue a Major Source Permit to Rhode Island Central Genco, LLC

Response to Comments and Decision

Introduction

Rhode Island Central Genco, LLC, (RICG) proposes to install five, landfill gas-fired combustion turbines and three flares at its existing facility at 65 Shun Pike, Johnston, RI. An application for a Major Source Permit for this facility was received by the Office of Air Resources on 28 December 2007. The application was determined to be complete on 10 March 2008. On 28 August 2008 RICG submitted an addendum to their application proposing to add three flares to the project. This Response to Comments and Decision will respond to substantial comments made on the draft permit and present the Department's final action on RICG's Major Source Permit application.

On 11 March 2009 a Notice of Public Hearing and Comment Period was published in the Providence Journal and was mailed and/or e-mailed to interested parties announcing a public hearing and the opportunity for public comment on the Office of Air Resources' proposal to issue a Major Source Permit to Rhode Island Central Genco, LLC. The public notice contained the information required by Section 9.12.2 of APC Regulation No. 9. The public notice was sent to those persons required to be sent a public notice by Section 9.12.3 of APC Regulation No. 9 and other interested persons. A fact sheet was prepared for the draft permit, which includes the information required by Section 9.12.4 of APC Regulation No. 9.

A copy of the draft Major Source Permit and supporting documentation was made available at the Office of Air Resources. The availability of these materials at this location was announced in the public notice.

A public hearing was held on 16 April 2009 at the Rhode Island Department of Environmental Management's offices, 235 Promenade Street, Providence, RI at 7:00 PM. The written comment period closed at 4:00 PM on 16 April 2009, 36 days after the date of initial public notice. A transcript of the public hearing was prepared.

Written comments were received from the United States Environmental Protection Agency and Domenic Parisella. No individuals provided comments on the record at the public hearing. The following is the Office of Air Resources' responses to the written comments.

Response to Comments

The following are the comments of the **USEPA** contained in a 7 April 2009 letter from Donald Dahl to Doug McVay followed by DEM's response.

Comment: *The BACT analysis for the combustion turbines supports establishing the permit emission limits as provided for in the Preliminary Determination and not at the emission limits in*

the draft NSR permit. The BACT analysis in the Preliminary Determination for the combustion turbine has a finding of 100 ppmv and 10 ppmv, respectively, on a dry basis, corrected to 15% O₂ (1-hour average) for the CO and VOC emission limits respectively, representative of full load conditions. The emission limits for CO and VOC of 200 ppmv and 20 ppmv, respectively, on a dry basis, corrected to 15% O₂ (1-hour average) in the draft NSR permit do not represent BACT but appear to be emission limits determined over a range of load conditions. EPA recommends changing the permit emission limits to reflect the BACT analysis as discussed in the Preliminary Determination.

Response: DEM has revised the permit emission limits for carbon monoxide (CO) and total nonmethane hydrocarbons (NMHC) (aka VOC) to be consistent with the statements in the BACT evaluation.

The emission limitation for CO has been revised to read:

The concentration of carbon monoxide discharged to the atmosphere from each combustion turbine shall not exceed 100 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average) at full load conditions and 200 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average) at load conditions other than full load Full load conditions shall mean 95-100% load

The emission limitation for NMHC has been revised to read:

The concentration of total nonmethane hydrocarbons discharged to the atmosphere from each combustion turbine shall not exceed 10 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average) at full load conditions and 20 ppmv, on a dry basis, corrected to 15 percent O₂ (1-hour average) at load conditions other than full load Full load conditions shall mean 95-100% load

Comment: *The emission limit in the draft NSR permit for SO₂ for the combustion turbines is 0.060 lb SO₂/MMBtu. Although this limit represents the emission limit found in 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines, it is not consistent with the BACT emission limit of 0.034 lb SO₂/MMBtu established in the Preliminary Determination. EPA recommends changing the permit emission limit for SO₂ to reflect the BACT analysis as discussed in the Preliminary Determination.*

Response: The emission limit in the permit has been revised to 0.034 lb SO₂/MMBtu to be consistent with the BACT analysis in the Preliminary Determination.

Comment: *DEM should establish a minimum operating temperature for the operation of the SCR system in support of the permit conditions requiring the owner/operator to continuously monitor the inlet temperature of the SCR catalyst.*

Response: DEM has added two conditions to the Operating Requirements section of the permit to require that the SCR unit be in operation at all times that the inlet temperature of the SCR catalyst is 600° F or greater and that ammonia injection occur when the inlet temperature of the SCR catalyst is 600° F or greater.

The new conditions read:

The SCR system shall be operated at all times that the inlet temperature of the SCR catalyst is 600° F or greater.and, Ammonia shall be injected into the SCR system whenever the inlet temperature of the SCR catalyst is at or above 600 °F.

Domenic Parisella provided the following comment in an e-mail to Doug McVay dated 8 April 2009:

Comment: *I strongly object to any proposal that might contribute to any additional odor. Any increase in air pollution emissions is not acceptable.*

Response: The landfill gas-fired turbines would not be expected to generate odors that would be objectionable beyond the property line. However, unreacted ammonia is emitted from the SCR system used to control nitrogen oxides emissions. The maximum predicted 1-hour average impact of ammonia from the air quality modeling was 15.324 µg/m³ (0.021 ppm). This impact is less than the lowest reported odor threshold for ammonia.

Additionally, the applicant has demonstrated in the air quality impact analysis that:

- This facility will not cause or contribute to air pollution in violation of any National Ambient Air Quality Standard.
- Emissions from the facility will not 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 ("Air Toxics").

Decision

The Department finds that the applicant has satisfied all the applicable provisions of APC Regulation No. 9, Section 9.4 relative to the requirements for issuance of a Major Source Permit for a major modification in a nonattainment area and Section 9.5 relative to the requirements for issuance of a Major Source Permit for a major modification in an attainment area.

Based on the comments received on the proposal to issue a Major Source Permit to Rhode Island Central Genco, LLC, it is the decision of the Office of Air Resources to amend the draft permit as indicated in the response to comments above and issue the Major Source Permit, as revised.

Date

Susan Forcier, Hearing Officer
Office of Legal Services