

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FIELD OPERATIONS - BUREAU OF AIR QUALITY

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the Rules and Regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-09-0077</u>	Source(s)	<u>Facility VOC and NOx RACT</u>
Owner	<u>PECO Energy Company</u>	Air	<u></u>
Address	<u>3901 North Delaware Avenue</u>	Cleaning	<u></u>
	<u>Philadelphia, PA 19137</u>	Device	<u></u>
Attention	<u>Dennis D. Ray</u>	Location	<u>1414 Bordentown Road</u>
	<u>Manager Distributed Generation</u>		<u>Falls Township</u>
			<u>Bucks County</u>

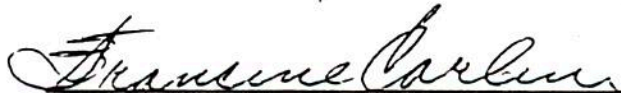
This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
 - a. operated in such a manner as not to cause air pollution;
 - b. in compliance with the specifications and conditions of all applicable plan approvals issued;
 - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the Rules and Regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 12/19/1997


Francine Carlini
Regional Manager
Air Quality

~~Expires~~ 12/19/2002

cc: Division of Permits, RCSOB
Administration
SEFO
Re (jcd)288-6

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CONDITIONS (continued):

3. This Reasonably Available Control Technology (RACT) operating permit is issued to PECO Energy Company for the operation of two turbines located at the Pennsbury Power Production Plant, 1414 Bordentown Road, Falls Township, Bucks County.
4. This operating permit supersedes the existing Operating Permit No. 09-322-002.
5. The gas fired turbines are manufactured by Solar Turbines, Inc. (Model No. T-4500) and are rated at 42 MMBtu/hr. each.
6. The turbines covered under this Operating Permit shall burn landfill gas as the primary fuel only. Liquefied petroleum gas (LPG) may be used to light off the turbines during startup only.
7. The quantity of landfill gas used by each of the turbine shall be recorded and the annual usage shall be made available to the Department of Environmental Protection (DEP).
8. Stack Emission Limitation
 - a. Criteria Pollutants
 - (1) The turbines shall be operated to reduce the concentration of volatile organic compounds (VOCs) in the landfill gas by a minimum of 98% (weight basis) or below 20 ppmv, dry basis as hexane at 3% oxygen.
 - (2) The emissions of oxides of nitrogen (NO_x) expressed as NO₂ from the turbines shall not exceed 42 ppmv at 15% oxygen on a dry basis.
 - (3) Sulfur dioxide (SO₂) emissions of the landfill gas burned in the turbines shall not exceed 0.015% by volume at 15% oxygen on a dry basis, consistent with NSPS Regulation 60.333 of 40 CFR, part 60 Subpart GG.
 - b. Non-Criteria Pollutants
 - (1) Using the stack emission rates for the facility and the exhaust parameters from stack tests specified in the plan approval and the modeling techniques approved by DEP the calculated maximum annual ambient concentrations from each stack shall not exceed the following levels:

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CONDITIONS (continued):

Contaminants	Ambient Concentration $\mu\text{g}/\text{m}^3$
Arsenic and Compounds	0.024
Beryllium and Compounds	0.01
Cadmium and Compounds	0.12
Nickel and Compounds	0.24
Hexavalent Chromium and Compounds	0.00833
Lead and Compounds	1.5
Mercury and Compounds	0.24

9. Monitoring

- a. The landfill gas used as fuel in the two turbines covered under this operating permit must be monitored on a daily basis to determine the composition of the nitrogen, as required under the NSPS Regulation Section 60.334 of 40 CFR, Part 60, Subpart GG.
- b. The landfill gas used as fuel in the turbine covered under this operating permit must be monitored and recorded on a quarterly basis to determine the composition of the sulfur, as required under the NSPS Regulation Section 60.334 of 40 CFR, Part 60 Subpart GG.

10. Stack Test

- a. Within one hundred and eighty (180) days after receiving this operating permit, the owner or operator shall perform a stack test on both the turbines in accordance with the provisions of Chapter 139 of the Rules and Regulations of DEP. The stack test shall be performed for NOx and VOC while operating at the maximum rated capacity.
- b. 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.
- c. At least thirty (30) days prior to the test, the company shall submit to DEP 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.

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CONDITIONS (continued):

- d. Within thirty (30) days after the source test(s), two copies of the complete test report, including all operating conditions, shall be submitted to the Regional Air Quality Manager for approval.

11. RACT Compliance Protocol

- a. An annual adjustment or tune-up on each of the combustion turbines shall be performed. The adjustment shall include the following:
 - (i) The date of the tuning procedure
 - (ii) The name of the service company and technicians
 - (iii) The final operating rate or load
 - (iv) The final CO and NOx emission rates
 - (v) The final excess oxygen rate.
- b. A major overhaul of the turbine equipment shall be conducted in accordance with manufacturer's guidelines on a periodic schedule.
- c. The landfill gas shall be analyzed by an on-line process gas chromatograph to determine nitrogen content of the fuel. Records of the fuel heating value shall be maintained.

12. Recordkeeping and Reporting Requirements

- a. The permittee shall maintain a file containing all the records and other data that are required to be collected to demonstrate compliance with NOx/VOC RACT requirements of 25 Pa. Code §§ 129.91-129.92.
- b. The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of §§ 129.91-129.92 are met.
- c. Data required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.

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CONDITIONS (continued):

- d. Records shall be retained for at least five years and shall be made available to DEP upon request.

13. General Requirements

- a. Malfunctions

The company within 24 hours of identifying an occurrence, shall notify DEP, at 610-832-6241, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, the emission of air contaminants 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. A written report shall be submitted to DEP within two working days following the incident describing the malfunctions and corrective actions taken.

- b. The company shall not impose conditions upon or otherwise restrict DEP's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow DEP to have access at any time to said source(s) and associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as DEP deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control act.
- c. This operation permit is valid for a period of five (5) years as per 25 Pa. Code Section 127.446 and may be renewed before its expiration. Request for an operating permit renewal must be in writing and must be accompanied by the appropriate permit application processing and annual permit administration fees as specified in 25 Pa. Code Section 127.703. These fees shall be paid in the form of a check payable to the "Commonwealth of Pennsylvania - clean Air Fund." The request should be made using the appropriate application form and must be received by DEP along with a completed Air Pollution Control Act Compliance Review form no later than 30 days prior to the expiration date of this permit.
- d. The expiration date shown on this RACT operating permit is for state purposes. For Federal enforcement purposes, the conditions of the operating permit which pertains to the implementation of the RACT regulations shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. Environmental Protection Agency (EPA).

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CONDITIONS (continued):

- e. Revisions to any emission limitations incorporated in this operating permit will require resubmission as a revision to the Pa. State Implementation Plan. The applicant shall bear the costs of public hearings and notifications required for EPA approval as stipulated in 25 Pa. Code § 129.91(h).
- 14. This source is subject to Subpart GG of the Standards of Performance for New Stationary Sources and shall comply with all applicable requirements of this Subpart. 40 CFR § 60.4 requires submission of copies of all requests, reports, applications, submittals, and other communications to both EPA and DEP. The EPA copies shall be forwarded to:

Director
Air, Toxic and Radiation Division
U.S. EPA, Region III
841 Chestnut Street
Philadelphia, PA 19107

- 15. Schedule for compliance shall be as follows:
 - a. All provisions of RACT approved by DEP shall be implemented immediately upon receiving this operating permit.

Re 30 (jcd)289-4