

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

APR 13 1999

OPERATING PERMIT

Revised 4/6/99

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-09-0066</u>	Source(s)	<u>Facility NOx and VOC RACT</u>
Owner	<u>PECO Energy Company</u>	Air	<u></u>
Address	<u>South Pennsylvania Avenue</u>	Cleaning	<u></u>
	<u>Fairless Works</u>	Device	<u></u>
	<u>Fairless Hills, PA 19030</u>	Location	<u>Fairless Hills Generating Station</u>
Attention	<u>Mr. Charles Charland</u>		<u>Falls Township</u>
	<u>Site Engineer</u>		<u>Bucks County</u>

This permit is subject to the following conditions:

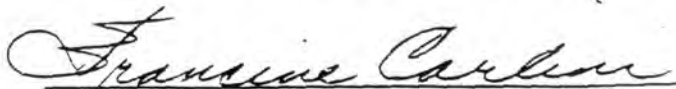
1. That the source(s) and any associated air cleaning devices are to be:
 - a. operated in such a manner as not to cause air pollution;
 - b. in compliance with the specifications and conditions of all applicable Plan Approvals issued;
 - c. operated and maintained in a manner consistent with good operating 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 12/31/1998

Expires 12/31/2003


Francine Carlini
Regional Manager
Air Quality

cc: ~~Division of Permits~~ RCSOB
Administration
SEFO
Re (GJC98)335-10a

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

3. This Operating Permit incorporates Reasonably Available Control Technology (RACT) determinations, as required by Title I provisions of the Clean Air Act Amendments and 25 Pa. Code Sections 129.91 through 129.95 for:
 - Boiler No. 3 (Serial No. 2817)
 - Boiler No. 4 (Serial No. 2818)
 - Boiler No. 5 (Serial No. 2819)

4. The expiration date shown on this Operating Permit is for State purposes. For Federal Enforcement purposes, the RACT portion of this Operating Permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced, pursuant to 40 CFR 51 and approved by the US Environmental Protection Agency (EPA).

5. If, at any time, the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Protection) of the aforementioned air contamination source(s), the operation and use of which is authorized by this permit, the permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).

6. If, at any time, the Department has cause to believe that air contaminant emissions from the aforementioned source(s) may be in excess of the limitations specified in any condition contained herein or 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 notifies the company that testing is required.

7. This Operating Permit is valid for a limited period of time and may be renewed before its expiration. Requests 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 Section 127.703 of the Rules and Regulations of the Department of Environmental Protection. 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 the Department along with a completed Air Pollution Control Act Compliance Review form no later than 30 days prior to the expiration date of this permit.

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

8. The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow the Department 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 the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.

9. Description of each of the three boilers shall be as follows:
 - Type: Wall-fired, two-drum, bent tube
 - No. of Burners: Six in pairs at three levels (Peabody type H-28 Register-style)
 - Steam Generating Capacity: 300,000 pounds per hour continuously
 - Rated Heat Input: 468.5 MMBtu/hr
 - Peak Heat Input: 490 MMBtu/hr

10. These three boilers are to be fired only on landfill gas, natural gas or residual fuel oil or any combination of these fuels. There will be no reclaimed or waste oil or other waste materials added to the residual fuel oil. Additionally, the sulfur content of the residual oil fired in these boilers shall not, at any time, exceed 0.5% by weight.

11. Implementation of RACT
 - The company has agreed to undertake the following actions as part of implementing RACT for the three boilers:
 - A. The company shall use landfill gas as primary fuel (100% of total capacity) in the boilers. Usage of natural gas shall be limited to 55% of total capacity (when fired individually), and usage of residual fuel oil shall be limited to 32% of total capacity (when fired individually).

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

- B. Each of the boilers shall be limited to 322 tons per year (on a 12-month rolling sum) of emission of oxides of nitrogen (NO_x). The following emission limits shall be used for the corresponding fuel type:

Fuel	Emission Factor
Landfill Gas	0.15 lb/MMBtu (30-day rolling average)
Natural Gas	0.274 lb/MMBtu (30-day rolling average)
Residual Oil	0.465 lb/MMBtu (30-day rolling average)
Co-Fired	prorated from the above emission limits and the percent heat input for each fuel fired in lb/MMBtu (30-day rolling average)

- C. The emission limit for volatile organic compounds (VOC) from each of the boilers shall be 3.96 tpy (12-month rolling sum) when burning natural gas or residual fuel oil. The emission limit for VOC when burning landfill gas shall be determined after performance tests to establish emission factors are completed. A boiler will be tested with the available landfill gas at the time of initial CEMS RATA to establish an interim VOC emission limit. Upon the availability of sufficient landfill gas to sustain full load operation, a boiler will be tested coincidental with the succeeding CEMS RATA to establish the full load VOC emission limit. This RACT Operating Permit shall be amended to include the revised VOC emission limit.
- D. The company shall perform an annual adjustment or tune up on the combustion process of each of the boilers. The adjustments shall include the requirements of 25 Pa. Code Section 129.93 (a)(2)-(a)(5). The initial adjustment or tune up on the combustion process shall be completed within 120 days of permit issuance.

12. Maintenance

The owner or operator shall properly maintain the boilers by following the steps listed below:

- A. The owner or operator shall conduct an annual adjustment or tune-up on the combustion units. The adjustment shall include but not limited to the following:
- (i) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

- (ii) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO_x and to the extent practicable minimize emissions of CO.
 - (iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.
- B. The owner or operator shall record each adjustment in a permanently bound log book or other method approved by the Department. This log shall contain, at a minimum, the following information:
- (i) The date of the tuning procedure.
 - (ii) The name of the service company and technician(s).
 - (iii) The final operating rate or load.
 - (iv) The final CO and NO_x emission rates.
 - (v) The final excess oxygen rate.

13. Monitoring

- A. Continuous emission monitoring systems (CEMS) for oxides of nitrogen (NO_x), Carbon Dioxide (CO₂), and a flow monitor must be approved by the Department and installed, operated and maintained in accordance with the requirements of Chapter 139 of the Rules and Regulations of the Pennsylvania Department of Environmental protection and the Department's Continuous Source Monitoring Manual. All submittals will be made in accordance with the time line specified in the Department's Continuous Source Monitoring Manual.
- B. The CEMS must be operated and maintained in accordance with the quality assurance, record keeping and reporting requirements of Chapter 139 of the Rules and Regulations of the Pennsylvania Department of Environmental Protection and the Department's Continuous Source Monitoring Manual. The required data reports shall be submitted to the Department's Central Office, in hardcopy and computer-readable-media formats as specified by the Department, within 30 days following the close of each calendar quarter.

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY
Revised 4/6/99

CONDITIONS (continued):

14. Recordkeeping

- A. The owner or operator shall record the type of fuel being used by each of the boilers, and the number of hours of operation using each type of fuel.
- B. The owner or operator shall make the annual adjustment in accordance with the EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved in writing by the Department.
- C. The owner or operator shall keep records to demonstrate compliance with 25 Pa. Code Sections 129.91-129.94.
- D. The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of 25 Pa. Code Sections 129.91-129.94 are met.
- E. Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
- F. The record shall be retained for at least five years and shall be made available to the Department on request.

15. NOx Allowance Requirements

- A. The following incorporates only the applicable NOx Allowance requirements specified in 25 Pa. Code §§ 123.101 – 123.120 for only the NOx affected sources listed in the site inventory.

- B. Tax – ID/Plant Code No. 25-0996816/26

OWNER: PECO Energy
MAILING: 2600 Monroe Boulevard
ADDRESS: Norristown, PA 19403

PLANT: Fairless Works
LOCATION: Bucks County, Falls Township

OPERATOR: PECO Energy
MAILING: 2600 Monroe Boulevard
ADDRESS: Norristown, PA 19403

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

AUTHORIZED ACCOUNT REPRESENTATIVE
NAME: Mr. Thomas Sylvester

PERMIT CONTACT PERSON
NAME: Mr. Thomas C. Ammons

C. Site Inventory List for NO_x Affected Sources

<u>Point ID</u>	<u>Combustion Source Name</u>	<u>NATS Account</u>	<u>Allowance</u>
043	Power House Boiler No. 3	007701000043	63
044	Power House Boiler No. 4	007701000044	14
045	Power House Boiler No. 5	007701000045	73
046	Power House Boiler No. 6	007701000046	84

D. § 123.112. Source Operating Permit Provisions Requirements

The permittee shall comply with the requirements 25 Pa. Code §§ 123.101 - 123.120 (relating to NO_x allowance requirements).

E. § 123.102. Source NO_x Allowance Requirements and NO_x Allowance Control Period

- a) For each NO_x affected source identified in this permit, the permittee shall hold a quantity of NO_x allowances meeting the requirements of § 123.110(a) (relating to source compliance requirements) in the source's current year NATS account by December 31st of each calendar year. The NO_x allowances shall be equal to or greater than the total NO_x emitted from the source during that year's NO_x allowance control period.
- b) The initial NO_x allowance control period begins on May 1, 1999.

F. § 123.108. Source emissions monitoring requirements

- a) The NO_x emissions from each NO_x affected source at this facility shall be monitored as specified in 25 Pa.Code § 123.108 and in accordance with the procedures contained in the document titled, "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program."

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

- b) As referenced in § 123.108(2), the permittee shall submit to the Department and the NO_x Budget Administrator a monitoring plan in accordance with the procedures outlined in the document titled, "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program."
- c) New and existing unit emission monitoring systems, as required and specified by 25 Pa.Code § 123.108(4) and the NO_x affected source's monitoring plan approved by the Department, shall be installed and operational. The installed emissions monitoring systems shall have met all of the certification testing requirements in accordance with the procedures and deadlines specified in the document titled, "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program" in a manner consistent with Chapter 139 (relating to sampling and testing).
- d) Sources subject to 40 CFR Part 75 shall demonstrate compliance with § 123.108 by using a certified Part 75 monitoring system.
- e) During a period when valid data is not being recorded by devices approved for use to demonstrate compliance with the NO_x Allowance Requirement subchapter, the permittee shall replace missing or invalid data with representative default data in accordance with 40 CFR Part 75 (relating to continuous emission monitoring) and the document titled, "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program." For Non-Part 75 sources that have Department approved NO_x CEMS reporting of NO_x emissions in pounds of NO_x per hour as required under 25 Pa.Code § 139.101, the data shall be reported to the NETS. The permittee shall continue to report submissions as required under 25 Pa. Code Chapter 139 to the Department.

G. § 123.108. Source Emissions Testing Requirements

Monitoring systems for each NO_x affected source shall comply with the initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in the document titled "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program."

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

Notwithstanding this permit condition, Non-Part 75 Sources which have Department approved NO_x CEMS reporting in units of pounds of NO_x per hour, as required under 25 Pa. Code § 139.101 (relating to general requirements) shall complete the periodic self-audits listed in the quality assurance section of § 139.102(3) (relating to references) at least annually and no sooner than six months following the previous periodic self-audit. If practicable, the audit shall be conducted between April 1 and May 31.

H. § 123.109. Source Emissions Reporting Requirements

- a) The authorized account representative shall submit to the NO_x Budget Administrator, electronically, emissions and operations information for each calendar quarter of each year in accordance with the document titled, "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program." The emissions and operations information shall be submitted in a format which meets the requirements of EPA's Electronic Data Reporting convention.

I. § 123.110. Source Compliance Requirements

- a) Each year from November 1 through December 31st, inclusive, the authorized account representative shall request the NO_x Budget Administrator to deduct, consistent with § 123.107 (relating to NO_x allowance transfer procedures) a designated amount of NO_x allowances by serial number, from the NO_x affected source's compliance account in an amount equivalent to the NO_x emitted from the NO_x affected source during that year's NO_x allowance control period. The designated NO_x allowances shall be used in accordance with the requirements specified in 25 Pa.Code § 123.110.
- b) For each NO_x allowance control period, the authorized account representative for the NO_x affected source shall submit an annual compliance certification to the Department no later than the NO_x allowance transfer deadline (December 31st) of each year.
- c) At a minimum, the compliance certification shall contain the information and statements required under 25 Pa. Code §§ 123.110(e)(1)-(6).

OPERATING PERMIT CONDITIONS
APPLICATION NO. OP-09-0066
PECO ENERGY COMPANY

Revised 4/6/99

CONDITIONS (continued):

J. § 123.113. Source Recordkeeping Requirements

The owner or operator shall maintain for each NO_x affected source at this facility, the measurements, data, reports and other information required by 25 Pa. Code §§ 123.101 - 123.120. The records shall be maintained for five years or any other period consistent with the terms of the NO_x affected source's operating permit

Re 30 (GJC98)335-10