

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.S. 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.	OP-09-0016A	Source(s)	Eight (8) Combustion Turbines
Owner	PECO Energy Company	Air	Croydon Generating Station
Address	2301 Market Street	Cleaning	
	Philadelphia, PA 19101	Device	
Attention	William F. McEloy	Location	955 River Road
	Director, Environmental Affairs		Bristol Township
			Bucks County

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. 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 12/20/1996

Expires 12/20/2001


Francine Carlini
Regional Manager
Air Quality

cc: Division of Permits, RCSOB
Administration
SEFO
Re (KAL)204.5

O. RATING PERMIT CONDITIONS
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CONDITIONS (continued):

3. This operating permit is issued to the owner for the operation of the following eight (8) GE Frame 7B combustion turbines rated at 48 MW each and fired by No. 2 fuel oil:
 - A. Simple Cycle Turbine Nos.: 11, 12, 22, 31, and 41;
 - B. Regenerative Turbines Nos.: 21, 32, and 42.
4. The expiration date shown on the Operating Permit is for state purposes. For Federal enforcement purposes the RACT provisions of the 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 U.S. Environmental Protection Agency (EPA). ~~The Operating Permit shall become enforceable by the U.S. EPA upon its approval of the above as a revision to the SIP.~~
5. This Operating Permit supersedes previously issued operating permit bearing the number OP-09-0016.
6. Operating Requirements:
 - A. The operation of each simple cycle turbines shall not exceed the capacity factor of 25%.
 - B. The operation of each regenerative cycle turbines shall not exceed the capacity factor of 20%.
 - C. The capacity factor for each turbine is defined as the ratio of net electrical power generated for the last twelve (12) months to the maximum electrical power generation capability of the turbine for the same last twelve (12) months.

A rolling 12 month capacity factor is expressed as:

$$\frac{\text{Last 12 month net generation (MWH)}}{\text{Maximum Capacity of the Unit (MW) x 8760 (hours)}}$$
7. Emission Limitations
 - A. The NOx emissions from each simple cycle turbine shall not exceed 0.70 pounds per million Btu or 587 pounds per hour whichever is more stringent.
 - B. The NOx emissions from each regenerative cycle turbine shall not exceed 1.7 pounds per million Btu or 1117 pounds per hour whichever is more stringent.
 - C. The NOx emissions from the facility in total shall not exceed 1296 tons per year.

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CONDITIONS (continued):

- D. The sulfur content of the fuel oil fired in each turbine shall not exceed 0.20% (by weight).
- E. The SOx emissions from the facility shall not exceed 153 tons per year.
- 8. Recordkeeping Requirements
 - A. The owner shall record the following information for each turbine covered by this operating permit:
 - 1. Monthly electrical power (MWH) generated so that compliance with Condition 6 of this Operating Permit can be determined.
 - 2. Monthly fuel consumption and operation hours.
 - B. Records required under this Operating Permit shall be kept for a period of two (2) years and shall be made available to the Department upon its request.
- 9. Test Requirements
 - A. The owner shall perform stack test on each of the turbines, that have not been tested, once within the five (5) year life of this Operating Permit in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department to show compliance with Condition 7 of this Operating Permit. The stack tests shall be performed while the turbines are operating at the maximum rated capacity as stated in the application.
 - B. At least sixty (60) days prior to the test, the company shall submit to the Department 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.
 - C. 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.
 - 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.

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CONDITIONS (continued):

10. General Requirements

- A. The company, within 24 hours of becoming knowledgeable of an occurrence, shall notify the Department, at 610-832-6242, 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 the Department within two working days following the incident describing the malfunctions and corrective actions taken.
- B. 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, 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.
- C. 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, or causes, permits or allows any modifications, malfunction or removal of any air pollution control device required as a condition of this permit, then and in that event, this permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).

Re 30 (KAL)204.6