



**CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES**

RACT PLAN APPROVAL

Effective Date: July 11, 2001

Expiration Date: None

PA Permit Number: 51-4904

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 a Reasonably Available Control Technology (RACT) proposal received under the Pennsylvania Code, Title 25, Chapter 129.91 thru 129.95, of the rules and regulations of the Pennsylvania Department of Environmental Protection (PADEP), Air Management Services (AMS) approved the RACT proposal of the Facility below for the source(s) listed in section 1.A. Emission Sources of the attached RACT Plan Approval.

Facility: Exelon Generation Company - Schuylkill Generating Station
Owner: Exelon Generation Company
Location: 2800 Christian Street, Philadelphia , PA 19146
Mailing Address: 200 Exelon Way, Kennett Square, PA 19348
SIC Code(s): 4911
Plant ID: 4904
Facility Contact: Claude J. Reifsnyder
Phone: (215) 427-8537
Permit Contact: Kimberly A. Peck
Phone: (610) 765-5883
Responsible Official: Robert W. Sauer
Title: Manager


Edward Braun, Chief of Source Registration

7/11/01
Date

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and with Chapter 127 & 129 of the rules and regulations of the Department of Environmental Protection, Air Management Services has approved this Plan Approval to establish Nitrogen Oxides (NOx) Reasonably Available Control Technology (RACT) for implementation of the operating limitations on the emission source(s) in 2.A. below.

The plan approved is subject to the following conditions:

1. The Plan Approval No. 51-4904 is issued to Exelon Generation Company (Exelon) for the implementation of the operating limitations on the nitrogen oxides (NOx) emission sources at Schuylkill Generating Station, located at 2800 Christian Street, Philadelphia.
2. The purpose of this Plan Approval is to establish Nitrogen Oxides (NOx) Reasonably Available Control Technology (RACT) for Exelon's Schuylkill Generating Station. This includes the following emission sources and control equipment:
 - A. Emission Sources
 - (1) Tangentially fired (T-fired) Combustion Engineering #6 oil burning unit No. 1 with a rated net electrical output of 166 MW, based on summer peak output level (175 MW, based on winter peak output levels). The boiler consists of twin radiant type furnaces.
 - (2) One Pratt & Whitney model FT4A8 combustion turbine and one Pratt & Whitney model FT4A9 combustion turbine, both of aircraft derivative design and burn #2 oil. Their nominal outputs are 15.5 MW and 17.5 MW respectively.
 - (3) Emergency Diesel Generator.
3. This Plan Approval authorizes:
 - A. The implementation of the following operational limitations on Schuylkill Unit No. 1 to comply with the case-by-case determination in the RACT proposal submitted by Exelon:
 - (1) The performance of an annual adjustment or tuneup on the combustion process as per 25 PA Code Section 129.93(b)(2) - (5).
 - B. The implementation of the following operational limitations on the two Schuylkill combustion turbines to comply with the presumptive RACT requirements of 25 PA Code Section 129.93(c)(5):
 - (1) Maximum 12-month rolling capacity factor less than 5% for each combustion turbine. The rolling 12-month capacity factor is expressed as:

$$\frac{\text{Last 12 months net generation (MWH)}}{\text{Maximum capacity of unit (MW) x 24 hrs/day x No. of days in last 12 months}}$$
 - (2) The installation, maintenance and operation of the combustion turbines in accordance with manufacturers specifications.
 - C. The implementation of the following operational limitations on the Schuylkill emergency diesel generator to comply with the presumptive RACT requirements of PA Code Section 129.93(c)(5):
 - (1) Maximum operation of less than 500 hours in a consecutive 12-month period.
 - (2) The installation, maintenance and operation of the combustion turbines in accordance with manufacturers specifications.

4. This Plan Approval supersedes all Plan Approvals previously issued.
5. Stack Emission Limitations
 - A. The maximum air contaminant emissions from these sources, controlled by the equipment above shall be limited at stack outlet to:
 - (1) Nitrogen Oxides (NO_x):

Unit #1: 0.31 pounds or less per million BTU of heat input on a 30-day rolling average.
Maximum NO_x emissions of 673 tons per rolling 12-month period.
 - (2) NO_x emissions shall be determined from AMS-approved NO_x continuous monitoring system which includes heat input and fuel flow rate. During periods of operation when the NO_x continuous monitoring system records invalid data, NO_x emissions shall be determined using representative default data in accordance with the provisions of 40 CFR, Part 75 and "Guidance for Implementation of Emission Monitoring Requirements for the NO_x Budget Program".
6. RACT Implementation Schedule
 - A. Upon issuance of this Plan Approval, Exelon shall begin implementation of the measures necessary to comply with the approved RACT proposal by May 31, 1995.
7. Continuous Monitoring Requirements
 - A. Schuylkill Unit No. 1 meets the requirements of a "peaking" unit as defined in 40 CFR Part 75. Schuylkill Unit No. 1 shall comply with the parametric emissions monitoring systems (PEMS) requirements in accordance with 40 CFR Part 75, Appendix E to quantify emissions in pounds of NO_x per million BTU of heat input and the NO_x emissions mass flow rate to demonstrate compliance with Condition 5.A.(1).
8. 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 NO_x RACT requirements of 25 PA Code §§129.91-129.94. These records shall include fuel consumption, fuel sulfur content, operating hours, operating conditions, power generation and NO_x emissions.
 - B. The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of §§129.91-129.94 are met.
 - C. Data of information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
 - D. Records shall be retained for at least two years and shall be made available to AMS on request.
9. Malfunctions

The company, within one hour of occurrence, shall notify Air Management Services (AMS), at (215) 685-7572, of any malfunction of the source(s) or associated air 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 Resources. A written report shall be submitted to AMS within two working days following the incident describing the malfunctions and corrective actions taken. For those air contaminants monitored by an AMS certified CEMS for which AMS's Enforcement Policy - Continuous Emission Monitoring System (CEMS) established penalties for excess emissions the aforementioned notification and reporting requirements will be waived.

10. The operation of the aforementioned boiler, combustion turbines and emergency diesel engine shall not at any time result in the emission of visible air contaminants in excess of the limitations specified in Section 123.41, particulate matter in excess of the limitations specified in Section 123.11 or sulfur oxides in excess of the limitations specified in Section 123.22, all Sections of Chapter 123 of Article III of the Rules and Regulations of the Department of Environmental Resources, or in the emission of any of these or any other type of air contaminant in excess of the limitations specified in, or established pursuant to, any other applicable rule or regulation contained in Article III.
11. The company shall not impose conditions upon or otherwise restrict AMSs access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow AMS 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 AMS deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.
12. The expiration date shown on the Plan Approval is for city purposes. For Federal enforcement purposes the Plan Approval shall remain in effect as part of the State Implementation Plan until repealed pursuant to 40 CFR 51.4 and approved by the U.S. Environmental Protection Agency.
13. Revisions to any emission limitations incorporated in this Plan Approval will require resubmission as revision to the PA State Implementation Plan. The applicant shall bear the cost of public hearing and notification required for EPA approval as stipulated in 25 PA Code Section 129.91(h).