



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

**RACT PLAN APPROVAL**

Effective Date: January 9, 2015

Expiration Date: None

Replaces Permit No. None

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: Grays Ferry Cogeneration Partnership – Schuylkill Station

Permittee: Grays Ferry Cogeneration Partnership  
Location: 2600 Christian Street, Philadelphia, PA 19146  
Mailing Address: 2600 Christian Street, Philadelphia, PA 19146  
SIC Code(s): 4961  
Plant ID: 4944

Facility Contact: Floyd Ruppel  
Phone: (267) 350-5846

Permit Contact: Floyd Ruppel  
Phone: (267) 350-5846

Responsible Official: Michael J. Smedley  
Title: Vice President and General Manager

A handwritten signature in blue ink, appearing to read "Edward Wiener".

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Edward Wiener, Chief of Source Registration

1/9/2015

Date

The RACT plan approval is subject to the following conditions:

1. The purpose of this Plan Approval is to establish Nitrogen Oxides (NO<sub>x</sub>) Reasonably Available Control Technology (RACT) for Veolia – Schuylkill Station. This includes the following emission sources and control equipment:

**A. Emission Sources**

- (1) Boiler #25: Auxiliary boiler with a capacity of 1119 MMBTU/hr. The boiler is front wall fired burns #2 oil and Natural Gas.
- (2) Turbine (with and without HRSG): Combustion Turbine (CT) is a combined cycle turbine with a capacity of 1515 MMBTU/hr (135 MW). The CT can operate both with and without a Heat Recovery Steam Generating Unit (HRSG). The CT burns #2 oil and Natural Gas.

**B. Control Equipment**

- (1) Boiler #25 shall be modified with low NO<sub>x</sub> (LNB) burners and flue gas recirculation (FGR).
- (2) CT has SCR and in addition of low NO<sub>x</sub> (DLN) combustion for gas firing, and water injection (WI) for oil firing.

**2. This approval requires and authorizes:**

- A. Boiler #25 shall be modified with low NO<sub>x</sub> burners and flue gas recirculation .
- B. CT shall be modified with SCR and in addition of low NO<sub>x</sub> (DLN) combustion for gas firing, and water injection for oil firing.

**3. Stack Emission Limitations**

- A. The maximum air contaminant emissions from these sources shall be limited at stack outlet to:
  - (1) Nitrogen Oxides (NO<sub>x</sub>):
    - (a) Boiler #25- NO<sub>x</sub> emissions shall not exceed 0.10 pounds per MMBTU when firing gas and 0.15 pounds per MMBTU when firing oil.
    - (b) The Combustion Turbine NO<sub>x</sub> emissions shall not exceed 255 pounds per hour.
    - (c) The Combustion Turbine with HRSG NO<sub>x</sub> emissions shall not exceed 298.9 pounds per hour.
    - (d) The facility shall monitor and record compliance based on NO<sub>x</sub> CEMs for Boiler #25 and CT.

#### **4. RACT Implementation Schedule**

- A. Upon issuance of this approval, Grays Ferry shall begin immediate implementation of the measures necessary to comply with the approved RACT proposal.
  - (1) Grays Ferry shall maintain low NOx burners and flue gas recirculation on Boiler #25, and SCR and in addition of low NOx (DLN) combustion for gas firing, and water injection for oil firing on CT

#### **5. Testing and Monitoring Requirements**

- A. Continuous nitrogen oxides and oxygen monitors and recorders shall be operated on the exhaust stacks of Boiler #25 and the CT/HRSG.

#### **6. Recordkeeping and Reporting Requirements**

- A. Compliance shall be monitored and recorded based on NOx CEMS for Boiler#25 and CT.
  - B. Grays Ferry shall maintain a file containing all the records and other data that are required to be collected to demonstrate compliance with NOx RACT requirements of 25 PA Code §129.91-129.94.
  - C. The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of §129.91-129.94 are met.
  - D. Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
  - E. Records shall be retained for at least five years and shall be made available to AMS on request.
7. The company shall not impose conditions upon or otherwise restrict AMS's 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.
8. Revisions to any emission limitations incorporated in this RACT 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 §129.91(h).