



CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES

RACT PLAN APPROVAL

Effective Date: July 27, 1999

Expiration Date: None

PA Permit Number: 51-9513

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: Northeast Water Pollution Control Plant
Owner: Philadelphia Water Department
Location: 3899 Richmond Street, Philadelphia, PA 19137
Mailing Address: 3899 Richmond Street, Philadelphia, PA 19137
SIC Code(s): 4952
Plant ID: 9513
Facility Contact: James Nicolo
Phone: (215) 685-1301
Permit Contact: Dennis D. Blair
Phone: (215) 685-6368
Responsible Official: Richard E. Roy
Title: Water Commissioner


Thomas Huynh, Chief of Source Registration

July 27, 1999
Date

The RACT plan approval is subject to the following conditions:

- I. The purpose of this Plan Approval is to establish Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOC) Reasonably Available Control Technology (RACT) for Northeast WPCP. This includes the following emission sources and control equipment:

A. Emission Sources:

(1) NOx Sources:

<u>Boiler Description</u>	<u>Fuel Type</u>	<u>Full Rated Capacity</u>
1. PST Bldg. Boiler # 1	Natural Gas	1,139,100 BTU/hour
2. Chlor. Bldg. Boiler # 2	#2 Oil/ D. Gas	580,000 BTU/hour
3. Admin. Bldg. Boiler # 1	Natural Gas	1,532,000 BTU/hour
4. Old. Adm. Bldg. Boiler #1	Natural Gas	780,000 BTU/hour
5. Xform. Bldg. Boiler #1	Natural Gas	250,000 BTU/hour
6. PTB Boiler #1	#2 Oil/ D. Gas/ Natural Gas	14,645,000 BTU/hour
7. PTB Boiler #2	#2 Oil/ D. Gas/ Natural Gas	14,645,000 BTU/hour
8. STB Boiler #1	#2 Oil/ D. Gas/ Natural Gas	20,087,400 BTU/hour
9. STB Boiler #2	#2 Oil/ D. Gas/ Natural Gas	20,087,400 BTU/hour
10. STB Boiler #3	#2 Oil/ D. Gas/ Natural Gas	20,087,400 BTU/hour
11. STB Boiler #4	#2 Oil/ D. Gas/ Natural Gas	20,087,400 BTU/hour
12. Old Store Room Boiler	Natural Gas	500,000 BTU/hour

(2) VOC Sources at Northeast WPCP:

1. Influent Channels
2. Grit Basins
3. Primary Influent Channel - Set 2
4. Primary Sedimentation Tanks - Set 1
5. Primary Effluent Channel - Set 1
6. Primary Sedimentation Tanks - Set 2
7. Primary Effluent Channel - Set 2
8. RBC/Activated Sludge Process
9. Mixed Liquor Channel
10. Secondary Sedimentation Tanks
11. Chlorination & Effluent Channels
12. Dissolved Air Flotation Tanks
13. Anaerobic Digesters
- 14 a. Sludge Transfer Tank
- 14 b. Boilers
- 14 c. Two Gasoline/Diesel Fuel Tanks & Vapor recovery
- 14 d. Digester Gas Flares

B. Control Equipment

- I. Excess gas produced by the anaerobic digestion of sludge is flared through waste gas burners.

2. This approval requires and authorizes:

- ~~A. Boilers #1,2,3 and 4 located in the STB building at the Northeast WPCP will comply with presumptive RACT requirements of 25 PA Code 129.93(b)(2) (5) for combustion sources with individual rated gross heat inputs equal to or greater than 20 MMBTU/hr accordance with the above regulation.~~
- ~~B. Boilers located in the PST building, Chlorination building, Administration building, Old Administration building, Transformer building or any other boiler less than 20 MMBTU/hr RACT will be the performance of an annual adjustment or tune up on the boilers located on the property of the Northeast WPCP will comply with the presumptive RACT requirements of 25 PA Code 129.93(e) for combustion sources with individual rated gross heat inputs less than 20 MMBTU/hr. RACT will be the installation, maintenance and operation of the boilers in accordance with manufacturer specifications.~~
- C. RACT for the wastewater treating plant process is adhering to a current good maintenance and operation program.

3. RACT Implementation Schedule:

Upon issuance of this approval, Northeast WPCP shall begin immediate implementation of the measures necessary to comply with the approved RACT proposal.

4. Testing Requirements:

- A. Northeast WPCP shall test its wastewater influent monthly using EPA Method 624. A continuous 24-hour composite sample (one sample aliquot every four hours) shall be collected and analyzed for one day during the last seven days of the month. The sampling day shall be varied during the year.
- B. Northeast WPCP shall determine the VOC emission from its wastewater operation based on the test result and the "TOXCHEM+" Computer program.
- C. Northeast WPCP may petition to AMS for approval of an alternate emission estimate method instead of the above testing and calculation.

5. Recordkeeping:

- A. Northeast WPCP shall maintain a file containing all the records and other data that are required to be collected to demonstrate compliance with NO_x and VOC RACT requirements of 25 PA Code §129.91-129.94. These records shall include the following:
- (1) Northeast WPCP:
- Daily influent wastewater flow and associated parameters required to estimate VOC emission from the wastewater treatment sources using EPA Method 624 and the "TOXCHEM+" Computer program.
 - Monthly VOC concentration of influent
 - Monthly report of process tanks being used
 - Monthly production of digester gas
 - Annual fuel usage which includes - No. 2 fuel oil
 - digester gas to boilers
 - digester gas to flares
 - Periods when the flares are malfunctioning
 - Report on all VOC spills to the wastewater treatment plant investigated by the Water Department's Industrial Waste Unit.

- Any changes to the wastewater treatment plant that would cause the need for recalibration of the TOXCHEM+ model.
 - B. The records shall provide sufficient data and calculations to clearly demonstrate that the requirements of §129.91-129.94 are met.
 - C. Data or 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 the Department on request.
6. Reporting:
- Northeast WPCP shall report on a semiannual basis. The report shall be due August 15th (for the period covering January 1 through June 30) and February 15th (for the period covering July 1 through December 31) of each year.
- A. Monthly VOC emissions from the facility.
 - B. Periods when the flares are malfunctioning, VOC spills to the wastewater plant investigated by the Industrial Waste Unit and any changes to the wastewater plant that would cause the need for recalibration of the TOXCHEM+ model.
 - C. Annual fuel usage.
7. ~~The operation of the aforementioned sources 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.~~
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. 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).

NOTE: *Wordling with strikethrough font is NOT being submitted for SIP approval.*