



**CITY OF PHILADELPHIA
DEPARTMENT OF PUBLIC HEALTH
AIR MANAGEMENT SERVICES
RACT PLAN APPROVAL**

Effective Date: January 9, 2015

Expiration Date: None

Replaces Permit No. PA-8906 effective on May 27, 1995

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: Temple University – Health Sciences Campus
Owner: Temple University
Location: 3401 North Broad Street Philadelphia, PA 19140
Mailing Address: 1009 West Montgomery Ave, Philadelphia, PA 19122
SIC Code(s): 8221
Plant ID: 08906
Facility Contact: Kurt A. Bresser
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Permit Contact: Kurt A. Bresser
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Responsible
Official: Robert Siegfried,
Title: Associate Vice President Facilities Management

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

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 oxide and (NO_x) Reasonably available control technology (RACT) for Temple University, Health Science center. This includes the following emission source and control equipment.

A. Emission Sources

- (i) Boiler #1: The Central Steam Plant (CSP) Boiler #1 is a Keeler CP units with heat input 76.4 MMBTU/hr that combust both natural gas and #6 fuel oil
- (ii) Boiler #2: The Central Steam Plant (CSP) Boiler #2 is a Keeler CP units with heat input 76.4 MMBTU/hr that combust both natural gas and #6 fuel oil
- (iii) Boiler #3: The Central Steam Plant (CSP) Boiler #3 is a Keeler CP units with heat input 76.4 MMBTU/hr that combust both natural gas and #6 fuel oil

2) This approval authorizes**A. Installation of the following**

- (i) CCA burner modifications shall be performed on each boiler, including each of the following:
 - a. Installation of staged flame stabilizers (a.k.a. swirlers).
 - b. Redesign and replacement of the atomizers.
 - c. Replacement of the center-fired gas injection rings with gas manifolds having center-fired and poker gas injection.
 - d. Installation of a NO_x tempering system (water injection).

B. Emission limits

- (i) The combined heat input for Boilers #1, #2, and #3 shall not exceed 673,894 MMBTU per rolling 12-month period.
- (ii) Nitrogen Oxides (NO_x) emissions from each boiler shall not exceed the following
 - (a) 0.067 lbs/MMBTU while burning natural gas. Compliance shall be determined based on stack test and shall be the average of three one hour separate test runs for each source.
 - (b) 0.40 lbs/MMBTU while burning No.6 fuel oil. Compliance shall be determined based on stack test and shall be the average of three one hour separate test runs for each source.
 - (c) Nitrogen Oxides (NO_x) emissions from Boilers #1, #2, and #3 combined shall not exceed 56.3 lbs/hr.
- (iii) During the ozone season (April 1 – October 31), each boiler shall burn natural gas as the primary fuel. Each boiler may only burn No. 6 fuel oil during periods of gas curtailment and natural gas interruption.

3) Testing Requirements

- A. Temple University – Health Sciences Campus shall conduct a NO_x performance test on each of the three boilers every five years while burning No. 6 oil and natural gas.
- B. At least (30) days prior to the test, Temple university shall submit to AMS for approval the procedures for the test and sketch with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples

4) Monitoring, Recordkeeping and Reporting Requirements

- A. Temple University shall maintain a file containing all the records and the data that are required to be collected to demonstrate compliance with NO_x RACT requirement of 25 PA Code §129.91-129.94
- 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. Temple shall monitor and record the monthly fuel usage for each boiler
- E. Temple shall monitor and record verification of compliance with the NO_x emission limits. Compliance with the NO_x limit shall be based on AMS approved stack test data.
- F. Temple shall keep records of the fuel manifests documenting the nitrogen content of No. 6 fuel oil.
- G. Temple shall keep hourly records of NO_x emissions from the boilers calculated on a weekly basis.
- H. Temple shall keep records of the reasoning of burning fuel oil during the ozone season (April 1 – October 31),
- I. Temple shall monitor and record the combined heat input of the boilers per rolling 12-month period.
- J. Records shall be retained for at least two years and shall be made available to AMS on request.

5) RACT Implementation Schedule

- A. Upon issuance of this approval Temple University – Health Sciences Campus shall begin immediate implementation of the measures necessary to comply with the approved RACT proposal.
- 6) 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 the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.
- 7) Revisions to any conditions approved as RACT by EPA 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).