COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date:	November 22, 2013	Effective Date:	December 13, 2017
Revision Date:	December 13, 2017	Expiration Date:	[redacted]
Revision Type:	Modification, Significant		

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable applicable requirements unless otherwise designated as "State-Only" or "non-applicable" requirements.

TITLE V Permit No: 14-00003

Federal Tax Id - Plant Code: 24-6000376-1

Owner Information

Name: PA STATE UNIV
Mailing Address: 208 OFFICE OF PHYSICAL PLANT BLDG
UNIVERSITY PARK, PA 16802-1119

Plant Information

Plant: PA STATE UNIV/UNIV PARK CAMPUS
Location: 14 Centre County 14001 State College Borough
SIC Code: 8221 Services - Colleges And Universities

Responsible Official

Name: STEVEN M MARUSZEWSKI
Title: ASSISTANT VICE PRESIDENT
Phone: (814) 865 - 4402

Permit Contact Person

Name: ROBERT COOPER
Title: DIR, ENERGY AND ENG.
Phone: (814) 863 - 5362

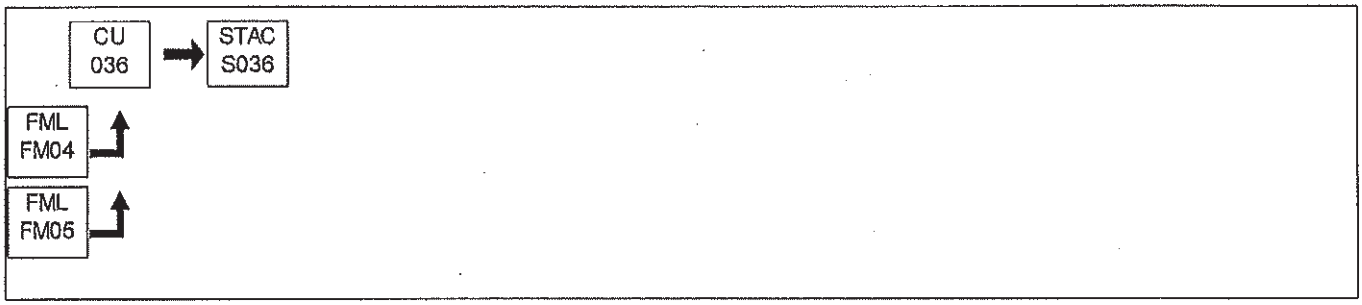
[Signature] _____
MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION

Pages: 2-30	Completely Redacted
Pages 41-121	Completely Redacted

SECTION D. Source Level Requirements

Source ID: 036 Source Name: ECSP BOILER 1

Source Capacity/Throughput:			
	130.000	MMBTU/HR	
	928.570	Gal/HR	#2 Oil
	127.450	MCF/HR	Natural Gas



I. RESTRICTIONS.

Emission Restriction(s).

[redacted]

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

Source ID 036 shall not at any time it is fired on natural gas emit nitrogen oxides (NOx, expressed as NO2) at a rate in excess of 0.18 pounds per million BTU of heat input.

 # 006 [25 Pa. Code §127.441]
Operating permit terms and conditions.
Pursuant to 25 Pa. Code Section 129.97(g)(1)(ii), Source ID 036 shall not at any time it is fired on #2 fuel oil emit nitrogen oxides (NOx, expressed as NO2) at a rate in excess of 0.12 pounds per million BTU of heat input.

Fuel Restriction(s).

 # 007 [25 Pa. Code §127.441]
Operating permit terms and conditions.
[Additional authority for this plan approval condition is derived from 25 Pa. Code 127.203a(a)(5)(iii). With respect to natural gas fuel usage, compliance with this permit condition ensures compliance with 25 Pa. Code Section 129.99(d).]

The fuel usage of Source IDs 036 and 037 shall each not exceed 520 million cubic feet in any 12 consecutive month period while firing natural gas and 743,000 gallons in any 12 consecutive month period while firing No. 2 fuel oil.

[redacted]

[redacted]

II. TESTING REQUIREMENTS.

 # 009 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(b) and 127.511]

At least 60 days before the performance of any testing required by this permit, the permittee shall submit three copies of a pretest protocol to the Department for review. The protocol shall describe the proposed test methods, procedures and equipment, and shall contain a dimensioned sketch of Source ID. 036's exhaust showing the location of the sampling ports to be used.

 # 010 [25 Pa. Code §127.441]
Operating permit terms and conditions.

(a) Pursuant to 25 Pa. Code Section 129.100(b)(1), the permittee shall by no later than January 1, 2017 demonstrate compliance with all RACT II nitrogen oxide limitations specified in this permit for Source ID 036. Compliance demonstration shall include performing EPA reference method testing for nitrogen oxides.

(b) Pursuant to 25 Pa. Code Section 129.100(a)(4), the permittee shall perform EPA reference method testing for nitrogen oxides on Source ID 036 no later than 5 years following the previous EPA reference method test for this source.

 # 011 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(b) and 127.511.]

The permittee shall provide the Department with at least 14 days advance notice of the actual date(s) and time(s) when any testing required by this permit will be performed, so that Department personnel may arrange to be present during testing.

 # 012 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.100(b).]

All testing required for Source ID 036 shall be performed using test methods and procedures approved in advance by the Department, and shall be performed while the source is operating at or near its rated (or allowable) capacity. During all

testing, the permittee shall monitor and record the steam production and fuel usage rates of Source ID. 036.

[redacted]

IV. RECORDKEEPING REQUIREMENTS.

[redacted]

 # 017 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(d) and 127.511.]

(a) The permittee shall keep records of the tune-ups conducted on Source ID. 036 in a permanently bound log book or other method approved by the Department. This log shall contain, at a minimum, the following information:

(i) the date of the tuning procedure
(ii) the name of the service company and technicians
(iii) the final operating rate or load
(iv) the final CO and NOx emission rates
(v) the final excess oxygen rate

(b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

 # 018 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 127.511 and, with respect to the NOx emissions, 25 Pa. Code Section 129.100(d).]

(a) The permittee shall keep records of the following for Source ID 036:

(1) The number of hours operated per month
(2) The amount and type of fuel consumed per month
(3) Supporting calculations used to verify the SO2 and particulate emissions limitations
(4) Stack test reports
(5) Supporting calculations to verify compliance with the NOx emission limitation in any 12 consecutive month period on a monthly basis

(b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

[redacted]

 # 021 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.100(b).]

Within 60 days following the performance of any testing required by this permit, the permittee shall submit two copies of a test report to the Department. The test report shall contain the results of all testing, descriptions of the test methods and procedures actually used in the performance of testing, and copies of all boiler steam production and fuel usage data recorded during testing for Source ID 036.

[redacted]

VI. WORK PRACTICE REQUIREMENTS.

 # 023 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

The permittee shall perform annual tune-ups of Source ID 036 to minimize the unit's nitrogen oxides emissions. These tune-ups shall be performed within 12 months (+/- 1 month) of the unit's previous tune-up.

SECTION D. Source Level Requirements

 # 024 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

The permittee shall comply with the annual tune-up, maintenance, and operating vendor guidelines on the subject source. The annual tune-up will include at a minimum:

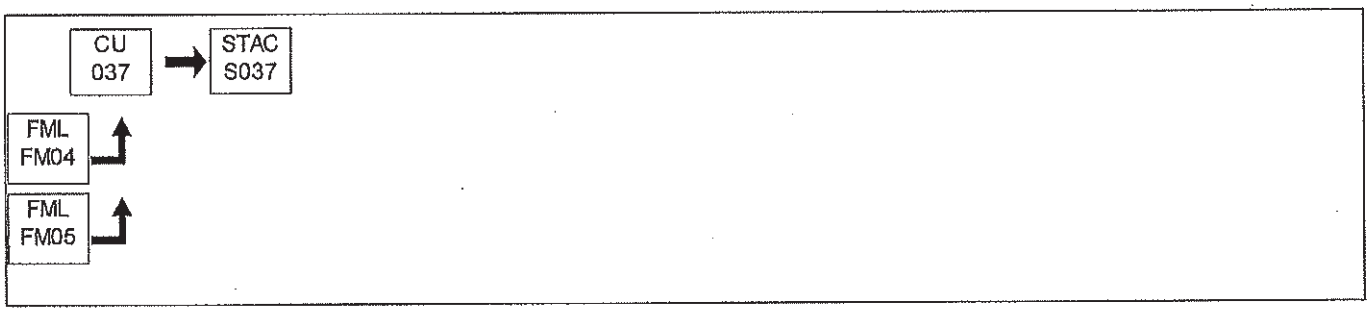
(i) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
(ii) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx, and to the extent practicable minimize emissions of CO.
(iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

[redacted]

SECTION D. Source Level Requirements

Source ID: 037 Source Name: ECSP BOILER 2

Source Capacity/Throughput: 130.000 MMBTU/HR
928.570 Gal/HR #2 Oil
127.450 MCF/HR Natural Gas



I. RESTRICTIONS.

Emission Restriction(s).

[redacted]

 # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.
[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

Source ID 037 shall not at any time it is fired on natural gas emit nitrogen oxides (NOx, expressed as NO2) at a rate in excess of 0.18 pounds per million BTU of heat input.

 # 006 [25 Pa. Code §127.441]
Operating permit terms and conditions.
Pursuant to 25 Pa. Code Section 129.97(g)(1)(ii), Source ID 037 shall not at any time it is fired on #2 fuel oil emit nitrogen oxides (NOx, expressed as NO2) at a rate in excess of 0.12 pounds per million BTU of heat input.

[redacted]

Throughput Restriction(s).

 # 008 [25 Pa. Code §127.441]
Operating permit terms and conditions.
[Additional authority for this plan approval condition is derived from 25 Pa. Code 127.203a(a)(5)(iii). With respect to natural gas fuel usage, compliance with this permit condition ensures compliance with 25 Pa. Code Section 129.99(d).]

The fuel usage of Source IDs 036 and 037 shall each not exceed 520 million cubic feet in any 12 consecutive month period while firing natural gas and 743,000 gallons in any 12 consecutive month period while firing No. 2 fuel oil.

II. TESTING REQUIREMENTS.

 # 009 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.100(b).]

All testing required for Source ID 037 shall be performed using test methods and procedures approved in advance by the Department, and shall be performed while the source is operating at or near its rated (or allowable) capacity. During all testing, the permittee shall monitor and record the steam production and fuel usage rates of Source ID 037.

 # 010 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(b) and 127.511.]

At least 60 days before the performance of any testing required by this permit, the permittee shall submit three copies of a pretest protocol to the Department for review. The protocol shall describe the proposed test methods, procedures and equipment, and shall contain a dimensioned sketch of Source ID 037's exhaust showing the location of the sampling ports to be used.

 # 011 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(b) and 127.511.]

The permittee shall provide the Department with at least 14 days advance notice of the actual date(s) and time(s) when any testing required by this permit will be performed, so that Department personnel may arrange to be present during testing.

 # 012 [25 Pa. Code §127.441]
Operating permit terms and conditions.

(a) Pursuant to 25 Pa. Code Section 129.100(b)(1), the permittee shall by no later than January 1, 2017 demonstrate compliance with all RACT II nitrogen oxide limitations specified in this permit for Source ID 037. Compliance demonstration

shall include performing EPA reference method testing for nitrogen oxides.

(b) Pursuant to 25 Pa. Code Section 129.100(a)(4), the permittee shall perform EPA reference method testing for nitrogen oxides on Source ID 037 no later than 5 years following the previous EPA reference method test for this source.

[redacted]

IV. RECORDKEEPING REQUIREMENTS.

[redacted]

 # 017 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 127.511 and, with respect to the NOx emissions, 25 Pa. Code Section 129.100(d).]

(a) The permittee shall keep records of the following for Source ID 037:

(1) The number of hours operated per month
(2) The amount and type of fuel consumed per month
(3) Supporting calculations used to verify the SO2 and particulate emissions limitations
(4) Stack test reports
(5) Supporting calculations to verify compliance with the NOx emission limitation in any 12 consecutive month period on a monthly basis

(b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

 # 018 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.100(d) and 127.511.]

(a) The permittee shall maintain records of the tune-ups conducted on Source ID. 037 in a permanently bound log book or other method approved by the Department. This log shall contain, at a minimum, the following information:

(i) the date of the tuning procedure
(ii) the name of the service company and technicians
(iii) the final operating rate or load
(iv) the final CO and NOx emission rates
(v) the final excess oxygen rate

(b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

[redacted]

 # 022 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.100(b).]

Within 60 days following the performance of any testing required by this permit, the permittee shall submit two copies of a test report to the Department. The test report shall contain the results of all testing, descriptions of the test methods and procedures actually used in the performance of testing, and copies of all boiler steam production and fuel usage data recorded during testing for Source ID 037.

VI. WORK PRACTICE REQUIREMENTS.

 # 023 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

The permittee shall perform annual tune-ups of Source ID 037 to minimize the unit's nitrogen oxides emissions. These

tune-ups shall be performed within 12 months (+/- 1 month) of the unit's previous tune-up.

 # 024 [25 Pa. Code §127.441]
Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.99(d).]

The permittee shall comply with the annual tune-up, maintenance, and operating vendor guidelines on the subject source. The annual tune-up will include at a minimum:

(i) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
(ii) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx, and to the extent practicable minimize emissions of CO.
(iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.

[redacted]