

# COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

# TITLE V/STATE OPERATING PERMIT

Issue Date: July 26, 2019 Effective Date: February 2, 2023
Revision Date: February 2, 2023 Expiration Date: July 25, 2024

Revision Type: Amendment

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: 213 PHYSICAL PLANT BLDG

UNIVERSITY PARK, PA 16802-1120

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: RUSSELL E RANG

Title: ASST VP OF OPERATIONS

Phone: (805) 889 - 5094 Email: rcr104@psu.edu

**Permit Contact Person** 

Name: GARY A HELSEL

Title: ENV COMPLIANCE ENGINEER

Phone: (814) 863 - 7339 Email: gah100@psu.edu

[Signature]

MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION





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# **SECTION A.** Site Inventory List

Source	ID Source Name	Capacity/Through	hput Fuel/Material
031B	WCSP NEW BOILER 1		
032B	WCSP NEW BOILER 2		
035	WCSP BOILER 8	49.000 MMBT	U/HR
036	ECSP BOILER 1	130.000 MMBT	U/HR
		928.570 Gal/HR	R #2 Oil
		127.450 MCF/H	R Natural Gas
037	ECSP BOILER 2	130.000 MMBT	U/HR
		928.570 Gal/HR	R #2 Oil
		127.450 MCF/H	R Natural Gas
064	NATURAL GAS-FIRED COMBUSTION UNITS < 10 MMBTU/HR		
064A	OIL-FIRED COMBUSTION UNITS < 10 MMBTU/HR		
171	DUCT BURNER (HEAT RECOVERY STEAM GENERATION UNIT)	97.850 MMBT	U/HR
001	HOSP/MED/INFECT WASTE INCINERATOR	500.000 Lbs/HF	R WASTE
P105	WASTEWATER TREATMENT PLANT	0.010 BCF/HI	R
P106	SUBPART ZZZZ EMERGENCY GENERATORS		
P106A	BEAVER STADIUM EMERGENCY GENERATOR		
P108	NEW SPARK IGNITION EMERGENCY GENERATORS		
P109	NEW COMPRESSION IGNITION EMERGENCY GENERATORS		
P110	MOBILE EQUIPMENT PAINT SPRAY BOOTH		
P112	WOODWORKING OPERATION		
P113	PAINTING OPERATION		
P116	HOUSING & FOOD SERVICES 1120 BHP DIESEL- FIRED ENGINE	52.600 Gal/HR	R Diesel Fuel
P116A	DICKENSON SCHOOL OF LAW, 399-BHP, DIESEL- FIRED ENGINE		
P117	COMPUTER BUILDING 2346 BHP DIESEL-FIRED ENGINE		
P118	COMPUTER BUILDING 2346 BHP DIESEL-FIRED ENGINE		
P119	ECSP 2695 BHP CAT GENERATOR		
P120	WCSP 2695 BHP CAT GENERATOR		
P122	TWO 433KW DOOSAN AIR COMPRESSORS	3.260 MMBT	U/HR
P123	HOUSING AND FOOD SERVICES WAREHOUSE GENERATOR		
P124	2MW DATA CENTER GENERATORS #1 & #2		
P125	2MW WATER TREATMENT PLANT GENERATOR		
P171	COMBINED HEAT AND POWER DUAL-FIRED COMBUSTION TURBINE	86.290 MMBT	U/HR
P172	WCSP COMBUSTION TURBINE AND HRSG		
C01	AMER AIR FILTER FC		
C03	WET SCRUBBER SYSTEM		
C105	WASTEWATER TREATMENT PLANT FLARE		
C110	PAINT SPRAY BOOTH FILTER PANELS		

DEP Auth ID: 1419671 DEP PF ID: 256457



# 14-00003



#### **SECTION A. Site Inventory List**

	D 0		Fuel/Meterial
Source I		Capacity/Throughput	Fuel/Material
C112	WOODWORKING CYCLONE		
C113	FILTER PANELS		
C171	OXIDATION CATALYST		
C172	WCSP CT/HRSG OXIDATION CATALYST		
FM005	NO. 2 OIL SUPPLY FOR CT		
FM02	REMAINING CAMPUS NAT GAS LINE		
FM03	REMAINING CAMPUS #2 FUEL OIL SUPPLY		
FM04	ECSP/WCSP NAT GAS LINE		
FM05	ECSP #2 FUEL OIL SUPPLY		
FM07	PROPANE		
FML#2	TWO (2) 25,000-GALLON ASTS		
S001	INCINERATOR STACK		
S031	STACK 1A		
S032	STACK 2A		
S035	WCSP BOILER 8 STACK		
S036	ECSP BOILER 1 STACK		
S037	ECSP BOILER 2 STACK		
S064	COMBUSTION UNITS' STACKS		
S105	WWTP FLARE STACK		
S106	EMERGENCY GENERATOR-ENGINES' STACKS		
S106A	GENERATOR & FIRE PUMP STACKS		
S108	SPARK IGNITION GENERATOR STACKS		
S109	COMPRESSION IGNITION GENERATOR STACKS		
S110	PAINT SPRAY BOOTH STACK		
S112	WOODWORKING OPERATION STACK		
S113	FILTER PANEL STACK		
S116	HOUSING & FOOD SERVICES ENGINE UNCONTROLLED		
S116A	DICKENSON SCHOOL OF LAW UNCONTROLLED		
S117	COMPUTER BUILDING ENGINE STACK		
S118	COMPUTER BUILDING ENGINE STACK		
S119	ECSP GENERATOR STACK		
S120	WCSP GENERATOR STACK		
S122	DOOSAN AIR COMPRESSOR STACKS		
S123	CATERPILLAR GENERATOR STACK		
S124	DATA CENTER GENERATORS 1 & 2 STACKS		
S125	WATER TREATMENT PLANT GENERATOR STACK		
S171	CT AND HRSG STACK		
S172	WCSP CT/HRSG STACK		

# **PERMIT MAPS**

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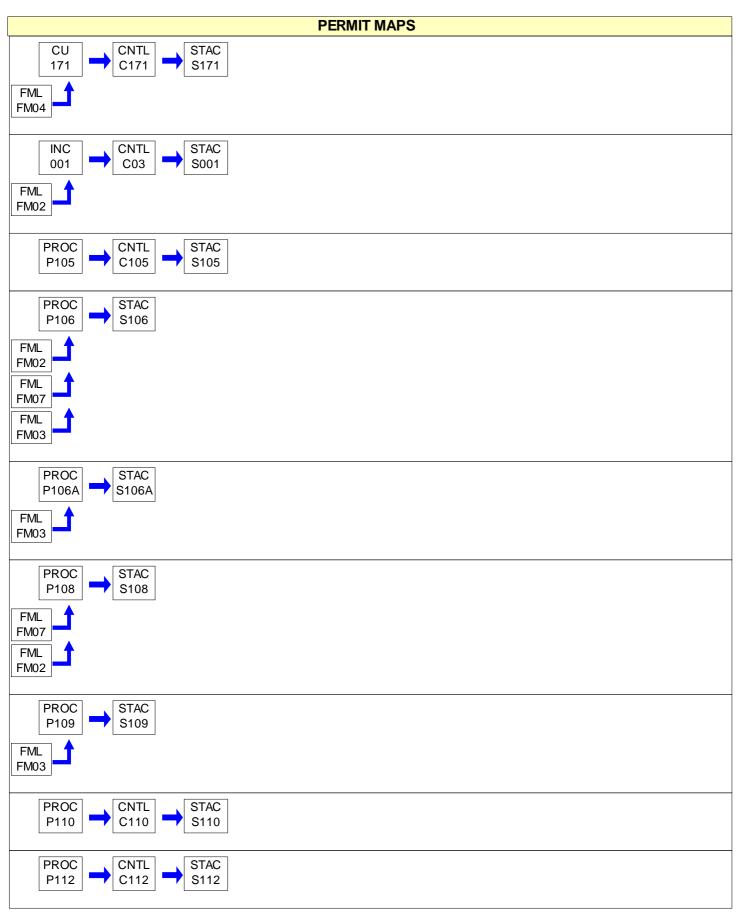












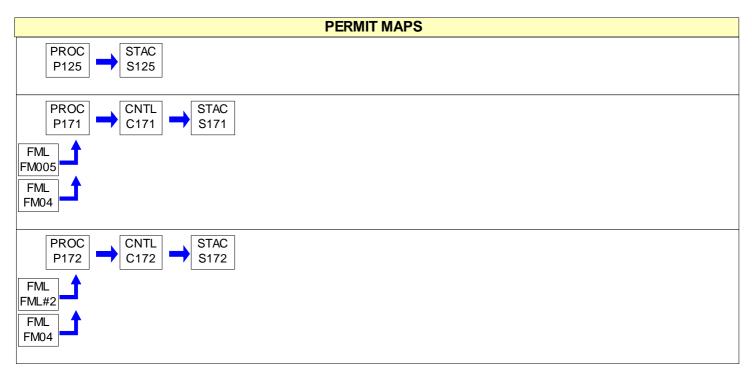
















#001 [25 Pa. Code § 121.1]

**Definitions** 

Words and terms that are not otherwise defined in this permit shall have the meanings set forth in Section 3 of the Air Pollution Control Act (35 P.S. § 4003) and 25 Pa. Code § 121.1......

#002 [25 Pa. Code § 121.7]

**Prohibition of Air Pollution** 

No person may permit air pollution as that term is defined in the act.

#003 [25 Pa. Code § 127.512(c)(4)]

**Property Rights** 

This permit does not convey property rights of any sort, or any exclusive privileges.

#004 [25 Pa. Code § 127.446(a) and (c)]

#### **Permit Expiration**

This operating permit is issued for a fixed term of five (5) years and shall expire on the date specified on Page 1 of this permit. The terms and conditions of the expired permit shall automatically continue pending issuance of a new Title V permit, provided the permittee has submitted a timely and complete application and paid applicable fees required under 25 Pa. Code Chapter 127, Subchapter I and the Department is unable, through no fault of the permittee, to issue or deny a new permit before the expiration of the previous permit. An application is complete if it contains sufficient information to begin processing the application, has the applicable sections completed and has been signed by a responsible official.

#005 [25 Pa. Code §§ 127.412, 127.413, 127.414, 127.446(e), 127.503 & 127.704(b)]

#### **Permit Renewal**

- (a) An application for the renewal of the Title V permit shall be submitted to the Department at least six (6) months, and not more than 18 months, before the expiration date of this permit. The renewal application is timely if a complete application is submitted to the Department's Regional Air Manager within the timeframe specified in this permit condition.
- (b) The application for permit renewal shall include the current permit number, the appropriate permit renewal fee, a description of any permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. The fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" and submitted with the fee form to the respective regional office.
- (c) The renewal application shall also include submission of proof that the local municipality and county, in which the facility is located, have been notified in accordance with 25 Pa. Code § 127.413. The application for renewal of the Title V permit shall also include submission of compliance review forms which have been used by the permittee to update information submitted in accordance with either 25 Pa. Code § 127.412(b) or § 127.412(j).
- (d) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information during the permit renewal process. The permittee shall also promptly provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.

#006 [25 Pa. Code §§ 127.450(a)(4) & 127.464(a)]

#### **Transfer of Ownership or Operational Control**

- (a) In accordance with 25 Pa. Code § 127.450(a)(4), a change in ownership or operational control of the source shall be treated as an administrative amendment if:
  - (1) The Department determines that no other change in the permit is necessary;
- (2) A written agreement has been submitted to the Department identifying the specific date of the transfer of permit responsibility, coverage and liability between the current and the new permittee; and,
  - (3) A compliance review form has been submitted to the Department and the permit transfer has been approved by





the Department.

(b) In accordance with 25 Pa. Code § 127.464(a), this permit may not be transferred to another person except in cases of transfer-of-ownership which are documented and approved to the satisfaction of the Department.

#### #007 [25 Pa. Code § 127.513, 35 P.S. § 4008 and § 114 of the CAA]

#### **Inspection and Entry**

- (a) Upon presentation of credentials and other documents as may be required by law for inspection and entry purposes, the permittee shall allow the Department of Environmental Protection or authorized representatives of the Department to perform the following:
- (1) Enter at reasonable times upon the permittee's premises where a Title V source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit;
  - (2) Have access to and copy or remove, at reasonable times, records that are kept under the conditions of this permit;
- (3) Inspect at reasonable times, facilities, equipment including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit;
- (4) Sample or monitor, at reasonable times, substances or parameters, for the purpose of assuring compliance with the permit or applicable requirements as authorized by the Clean Air Act, the Air Pollution Control Act, or the regulations promulgated under the Acts.
- (b) Pursuant to 35 P.S. § 4008, no person shall hinder, obstruct, prevent or interfere with the Department or its personnel in the performance of any duty authorized under the Air Pollution Control Act.
- (c) Nothing in this permit condition shall limit the ability of the EPA to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#### [25 Pa. Code §§ 127.25, 127.444, & 127.512(c)(1)] #008

#### **Compliance Requirements**

- (a) The permittee shall comply with the conditions of this permit. Noncompliance with this permit constitutes a violation of the Clean Air Act and the Air Pollution Control Act and is grounds for one (1) or more of the following:
  - (1) Enforcement action
  - (2) Permit termination, revocation and reissuance or modification
  - (3) Denial of a permit renewal application
- (b) A person may not cause or permit the operation of a source, which is subject to 25 Pa. Code Article III, unless the source(s) and air cleaning devices identified in the application for the plan approval and operating permit and the plan approval issued to the source are operated and maintained in accordance with specifications in the applications and the conditions in the plan approval and operating permit issued by the Department. A person may not cause or permit the operation of an air contamination source subject to 25 Pa. Code Chapter 127 in a manner inconsistent with good operating practices.
- (c) For purposes of Sub-condition (b) of this permit condition, the specifications in applications for plan approvals and operating permits are the physical configurations and engineering design details which the Department determines are essential for the permittee's compliance with the applicable requirements in this Title V permit.

#### #009 [25 Pa. Code § 127.512(c)(2)]

#### **Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.





### #010 [25 Pa. Code §§ 127.411(d) & 127.512(c)(5)]

### **Duty to Provide Information**

- (a) The permittee shall furnish to the Department, within a reasonable time, information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.
- (b) Upon request, the permittee shall also furnish to the Department copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator of EPA along with a claim of confidentiality.

# #011 [25 Pa. Code §§ 127.463, 127.512(c)(3) & 127.542]

# Reopening and Revising the Title V Permit for Cause

- (a) This Title V permit may be modified, revoked, reopened and reissued or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay a permit condition.
- (b) This permit may be reopened, revised and reissued prior to expiration of the permit under one or more of the following circumstances:
- (1) Additional applicable requirements under the Clean Air Act or the Air Pollution Control Act become applicable to a Title V facility with a remaining permit term of three (3) or more years prior to the expiration date of this permit. The Department will revise the permit as expeditiously as practicable but not later than 18 months after promulgation of the applicable standards or regulations. No such revision is required if the effective date of the requirement is later than the expiration date of this permit, unless the original permit or its terms and conditions has been extended.
- (2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator of EPA, excess emissions offset plans for an affected source shall be incorporated into the permit.
- (3) The Department or the EPA determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- (4) The Department or the Administrator of EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- (c) Proceedings to revise this permit shall follow the same procedures which apply to initial permit issuance and shall affect only those parts of this permit for which cause to revise exists. The revision shall be made as expeditiously as practicable.
- (d) Regardless of whether a revision is made in accordance with (b)(1) above, the permittee shall meet the applicable standards or regulations promulgated under the Clean Air Act within the time frame required by standards or regulations.

#### #012 [25 Pa. Code § 127.543]

#### Reopening a Title V Permit for Cause by EPA

As required by the Clean Air Act and regulations adopted thereunder, this permit may be modified, reopened and reissued, revoked or terminated for cause by EPA in accordance with procedures specified in 25 Pa. Code § 127.543.

# #013 [25 Pa. Code § 127.522(a)]

#### **Operating Permit Application Review by the EPA**

The applicant may be required by the Department to provide a copy of the permit application, including the compliance plan, directly to the Administrator of the EPA. Copies of title V permit applications to EPA, pursuant to 25 PA Code §127.522(a), shall be submitted, if required, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].



# #014 [25 Pa. Code § 127.541]

### **Significant Operating Permit Modifications**

When permit modifications during the term of this permit do not qualify as minor permit modifications or administrative amendments, the permittee shall submit an application for significant Title V permit modifications in accordance with 25 Pa. Code § 127.541. Notifications to EPA, pursuant to 25 PA Code §127.522(a), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#### #015 [25 Pa. Code §§ 121.1 & 127.462]

### **Minor Operating Permit Modifications**

The permittee may make minor operating permit modifications (as defined in 25 Pa. Code §121.1), on an expedited basis, in accordance with 25 Pa. Code §127.462 (relating to minor operating permit modifications). Notifications to EPA, pursuant to 25 PA Code §127.462(c), if required, shall be submitted, to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

#### #016 [25 Pa. Code § 127.450]

#### **Administrative Operating Permit Amendments**

(a) The permittee may request administrative operating permit amendments, as defined in 25 Pa. Code §127.450(a). Copies of request for administrative permit amendment to EPA, pursuant to 25 PA Code §127.450(c)(1), if required, shall be submitted to the following EPA e-mail box:

R3\_Air\_Apps\_and\_Notices@epa.gov

Please place the following in the subject line: TV [permit number], [Facility Name].

(b) Upon final action by the Department granting a request for an administrative operating permit amendment covered under §127.450(a)(5), the permit shield provisions in 25 Pa. Code § 127.516 (relating to permit shield) shall apply to administrative permit amendments incorporated in this Title V Permit in accordance with §127.450(c), unless precluded by the Clean Air Act or the regulations thereunder.

# #017 [25 Pa. Code § 127.512(b)]

# **Severability Clause**

The provisions of this permit are severable, and if any provision of this permit is determined by the Environmental Hearing Board or a court of competent jurisdiction, or US EPA to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

#### #018 [25 Pa. Code §§ 127.704, 127.705 & 127.707]

#### **Fee Payment**

- (a) The permittee shall pay fees to the Department in accordance with the applicable fee schedules in 25 Pa. Code Chapter 127, Subchapter I (relating to plan approval and operating permit fees). The applicable fees shall be made payable to "The Commonwealth of Pennsylvania Clean Air Fund" with the permit number clearly indicated and submitted to the respective regional office.
- (b) Emission Fees. The permittee shall, on or before September 1st of each year, pay applicable annual Title V emission fees for emissions occurring in the previous calendar year as specified in 25 Pa. Code § 127.705. The permittee is not required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant emitted from the facility.
- (c) As used in this permit condition, the term "regulated pollutant" is defined as a VOC, each pollutant regulated under Sections 111 and 112 of the Clean Air Act and each pollutant for which a National Ambient Air Quality Standard has been promulgated, except that carbon monoxide is excluded.





- (d) Late Payment. Late payment of emission fees will subject the permittee to the penalties prescribed in 25 Pa. Code § 127.707 and may result in the suspension or termination of the Title V permit. The permittee shall pay a penalty of fifty percent (50%) of the fee amount, plus interest on the fee amount computed in accordance with 26 U.S.C.A. § 6621(a)(2) from the date the emission fee should have been paid in accordance with the time frame specified in 25 Pa. Code § 127.705(c).
- (e) The permittee shall pay an annual operating permit maintenance fee according to the following fee schedule established in 25 Pa. Code § 127.704(d) on or before December 31 of each year for the next calendar year.
- (1) Eight thousand dollars (\$8,000) for calendar years 2021—2025.
- (2) Ten thousand dollars (\$10,000) for calendar years 2026—2030.
- (3) Twelve thousand five hundred dollars (\$12,500) for the calendar years beginning with 2031.

#### #019 [25 Pa. Code §§ 127.14(b) & 127.449]

### **Authorization for De Minimis Emission Increases**

- (a) This permit authorizes de minimis emission increases from a new or existing source in accordance with 25 Pa. Code §§ 127.14 and 127.449 without the need for a plan approval or prior issuance of a permit modification. The permittee shall provide the Department with seven (7) days prior written notice before commencing any de minimis emissions increase that would result from either: (1) a physical change of minor significance under § 127.14(c)(1); or (2) the construction, installation, modification or reactivation of an air contamination source. The written notice shall:
  - (1) Identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase.
- (2) Provide emission rates expressed in tons per year and in terms necessary to establish compliance consistent with any applicable requirement.

The Department may disapprove or condition de minimis emission increases at any time.

- (b) Except as provided below in (c) and (d) of this permit condition, the permittee is authorized during the term of this permit to make de minimis emission increases (expressed in tons per year) up to the following amounts without the need for a plan approval or prior issuance of a permit modification:
- (1) Four tons of carbon monoxide from a single source during the term of the permit and 20 tons of carbon monoxide at the facility during the term of the permit.
- (2) One ton of NOx from a single source during the term of the permit and 5 tons of NOx at the facility during the term of the permit.
- (3) One and six-tenths tons of the oxides of sulfur from a single source during the term of the permit and 8.0 tons of oxides of sulfur at the facility during the term of the permit.
- (4) Six-tenths of a ton of PM10 from a single source during the term of the permit and 3.0 tons of PM10 at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (5) One ton of VOCs from a single source during the term of the permit and 5.0 tons of VOCs at the facility during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act or 25 Pa. Code Article III.
- (c) In accordance with § 127.14, the permittee may install the following minor sources without the need for a plan approval:
- (1) Air conditioning or ventilation systems not designed to remove pollutants generated or released from other sources.
  - (2) Combustion units rated at 2,500,000 or less Btu per hour of heat input.





- (3) Combustion units with a rated capacity of less than 10,000,000 Btu per hour heat input fueled by natural gas supplied by a public utility, liquefied petroleum gas or by commercial fuel oils which are No. 2 or lighter, viscosity less than or equal to 5.82 c St, and which meet the sulfur content requirements of 25 Pa. Code § 123.22 (relating to combustion units). For purposes of this permit, commercial fuel oil shall be virgin oil which has no reprocessed, recycled or waste material added.
  - (4) Space heaters which heat by direct heat transfer.
  - (5) Laboratory equipment used exclusively for chemical or physical analysis.
  - (6) Other sources and classes of sources determined to be of minor significance by the Department.
- (d) This permit does not authorize de minimis emission increases if the emissions increase would cause one or more of the following:
- (1) Increase the emissions of a pollutant regulated under Section 112 of the Clean Air Act except as authorized in Subparagraphs (b)(4) and (5) of this permit condition.
- (2) Subject the facility to the prevention of significant deterioration requirements in 25 Pa. Code Chapter 127, Subchapter D and/or the new source review requirements in Subchapter E.
- (3) Violate any applicable requirement of the Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under either of the acts.
- (4) Changes which are modifications under any provision of Title I of the Clean Air Act and emission increases which would exceed the allowable emissions level (expressed as a rate of emissions or in terms of total emissions) under the Title V permit.
- (e) Unless precluded by the Clean Air Act or the regulations thereunder, the permit shield described in 25 Pa. Code § 127.516 (relating to permit shield) shall extend to the changes made under 25 Pa. Code § 127.449 (relating to de minimis emission increases).
- (f) Emissions authorized under this permit condition shall be included in the monitoring, recordkeeping and reporting requirements of this permit.
- (g) Except for de minimis emission increases allowed under this permit, 25 Pa. Code § 127.449, or sources and physical changes meeting the requirements of 25 Pa. Code § 127.14, the permittee is prohibited from making physical changes or engaging in activities that are not specifically authorized under this permit without first applying for a plan approval. In accordance with § 127.14(b), a plan approval is not required for the construction, modification, reactivation, or installation of the sources creating the de minimis emissions increase.
- (h) The permittee may not meet de minimis emission threshold levels by offsetting emission increases or decreases at the same source.

#### #020 [25 Pa. Code §§ 127.11a & 127.215]

#### **Reactivation of Sources**

- (a) The permittee may reactivate a source at the facility that has been out of operation or production for at least one year, but less than or equal to five (5) years, if the source is reactivated in accordance with the requirements of 25 Pa. Code §§ 127.11a and 127.215. The reactivated source will not be considered a new source.
- (b) A source which has been out of operation or production for more than five (5) years but less than 10 years may be reactivated and will not be considered a new source if the permittee satisfies the conditions specified in 25 Pa. Code § 127.11a(b).

#### #021 [25 Pa. Code §§ 121.9 & 127.216]

#### Circumvention

(a) The owner of this Title V facility, or any other person, may not circumvent the new source review requirements of 25 Pa. Code Chapter 127, Subchapter E by causing or allowing a pattern of ownership or development, including the





phasing, staging, delaying or engaging in incremental construction, over a geographic area of a facility which, except for the pattern of ownership or development, would otherwise require a permit or submission of a plan approval application.

(b) No person may permit the use of a device, stack height which exceeds good engineering practice stack height, dispersion technique or other technique which, without resulting in reduction of the total amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise be in violation of this permit, the Air Pollution Control Act or the regulations promulgated thereunder, except that with prior approval of the Department, the device or technique may be used for control of malodors.

#### #022 [25 Pa. Code §§ 127.402(d) & 127.513(1)]

#### **Submissions**

(a) Reports, test data, monitoring data, notifications and requests for renewal of the permit shall be submitted to the:

Regional Air Program Manager

PA Department of Environmental Protection

(At the address given on the permit transmittal letter, or otherwise notified)

(b) Any report or notification for the EPA Administrator or EPA Region III should be addressed to:

Enforcement & Compliance Assurance Division Air, RCRA and Toxics Branch (3ED21) Four Penn Center 1600 John F. Kennedy Boulevard Philadelphia, PA 19103-2852

The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.

(c) An application, form, report or compliance certification submitted pursuant to this permit condition shall contain certification by a responsible official as to truth, accuracy, and completeness as required under 25 Pa. Code § 127.402(d). Unless otherwise required by the Clean Air Act or regulations adopted thereunder, this certification and any other certification required pursuant to this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

### #023 [25 Pa. Code §§ 127.441(c) & 127.463(e); Chapter 139; & 114(a)(3), 504(b) of the CAA]

# Sampling, Testing and Monitoring Procedures

- (a) The permittee shall perform the emissions monitoring and analysis procedures or test methods for applicable requirements of this Title V permit. In addition to the sampling, testing and monitoring procedures specified in this permit, the Permittee shall comply with any additional applicable requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.
- (b) The sampling, testing and monitoring required under the applicable requirements of this permit, shall be conducted in accordance with the requirements of 25 Pa. Code Chapter 139 unless alternative methodology is required by the Clean Air Act (including §§ 114(a)(3) and 504(b)) and regulations adopted thereunder.

# #024 [25 Pa. Code §§ 127.511 & Chapter 135]

# **Recordkeeping Requirements**

- (a) The permittee shall maintain and make available, upon request by the Department, records of required monitoring information that include the following:
  - (1) The date, place (as defined in the permit) and time of sampling or measurements.
  - (2) The dates the analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.





- (5) The results of the analyses.
- (6) The operating conditions as existing at the time of sampling or measurement.
- (b) The permittee shall retain records of the required monitoring data and supporting information for at least five (5) years from the date of the monitoring sample, measurement, report or application. Supporting information includes the calibration data and maintenance records and original strip-chart recordings for continuous monitoring instrumentation, and copies of reports required by the permit.
- (c) The permittee shall maintain and make available to the Department upon request, records including computerized records that may be necessary to comply with the reporting, recordkeeping and emission statement requirements in 25 Pa. Code Chapter 135 (relating to reporting of sources). In accordance with 25 Pa. Code Chapter 135, § 135.5, such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions. If direct recordkeeping is not possible or practical, sufficient records shall be kept to provide the needed information by indirect means.

### #025 [25 Pa. Code §§ 127.411(d), 127.442, 127.463(e) & 127.511(c)]

### **Reporting Requirements**

- (a) The permittee shall comply with the reporting requirements for the applicable requirements specified in this Title V permit. In addition to the reporting requirements specified herein, the permittee shall comply with any additional applicable reporting requirements promulgated under the Clean Air Act after permit issuance regardless of whether the permit is revised.
- (b) Pursuant to 25 Pa. Code § 127.511(c), the permittee shall submit reports of required monitoring at least every six (6) months unless otherwise specified in this permit. Instances of deviations (as defined in 25 Pa. Code § 121.1) from permit requirements shall be clearly identified in the reports. The reporting of deviations shall include the probable cause of the deviations and corrective actions or preventative measures taken, except that sources with continuous emission monitoring systems shall report according to the protocol established and approved by the Department for the source. The required reports shall be certified by a responsible official.
- (c) Every report submitted to the Department under this permit condition shall comply with the submission procedures specified in Section B, Condition #022(c) of this permit.
- (d) Any records, reports or information obtained by the Department or referred to in a public hearing shall be made available to the public by the Department except for such records, reports or information for which the permittee has shown cause that the documents should be considered confidential and protected from disclosure to the public under Section 4013.2 of the Air Pollution Control Act and consistent with Sections 112(d) and 114(c) of the Clean Air Act and 25 Pa. Code § 127.411(d). The permittee may not request a claim of confidentiality for any emissions data generated for the Title V facility.

#### #026 [25 Pa. Code § 127.513]

#### **Compliance Certification**

- (a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:
- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.
- (b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3\_APD\_Permits@epa.gov.



#### #027 [25 Pa. Code § 127.3]

### **Operational Flexibility**

The permittee is authorized to make changes within the Title V facility in accordance with the following provisions in 25 Pa. Code Chapter 127 which implement the operational flexibility requirements of Section 502(b)(10) of the Clean Air Act and Section 6.1(i) of the Air Pollution Control Act:

- (1) Section 127.14 (relating to exemptions)
- (2) Section 127.447 (relating to alternative operating scenarios)
- (3) Section 127.448 (relating to emissions trading at facilities with federally enforceable emissions caps)
- (4) Section 127.449 (relating to de minimis emission increases)
- (5) Section 127.450 (relating to administrative operating permit amendments)
- (6) Section 127.462 (relating to minor operating permit amendments)
- (7) Subchapter H (relating to general plan approvals and operating permits)

# #028 [25 Pa. Code §§ 127.441(d), 127.512(i) and 40 CFR Part 68]

# **Risk Management**

- (a) If required by Section 112(r) of the Clean Air Act, the permittee shall develop and implement an accidental release program consistent with requirements of the Clean Air Act, 40 CFR Part 68 (relating to chemical accident prevention provisions) and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (P.L. 106-40).
- (b) The permittee shall prepare and implement a Risk Management Plan (RMP) which meets the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68 and the Federal Chemical Safety Information, Site Security and Fuels Regulatory Relief Act when a regulated substance listed in 40 CFR § 68.130 is present in a process in more than the listed threshold quantity at the Title V facility. The permittee shall submit the RMP to the federal Environmental Protection Agency according to the following schedule and requirements:
- (1) The permittee shall submit the first RMP to a central point specified by EPA no later than the latest of the following:
- (i) Three years after the date on which a regulated substance is first listed under § 68.130; or,
- (ii) The date on which a regulated substance is first present above a threshold quantity in a process.
- (2) The permittee shall submit any additional relevant information requested by the Department or EPA concerning the RMP and shall make subsequent submissions of RMPs in accordance with 40 CFR § 68.190.
- (3) The permittee shall certify that the RMP is accurate and complete in accordance with the requirements of 40 CFR Part 68, including a checklist addressing the required elements of a complete RMP.
- (c) As used in this permit condition, the term "process" shall be as defined in 40 CFR § 68.3. The term "process" means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances or any combination of these activities. For purposes of this definition, any group of vessels that are interconnected, or separate vessels that are located such that a regulated substance could be involved in a potential release, shall be considered a single process.
- (d) If the Title V facility is subject to 40 CFR Part 68, as part of the certification required under this permit, the permittee shall:
- (1) Submit a compliance schedule for satisfying the requirements of 40 CFR Part 68 by the date specified in 40 CFR § 68.10(a); or,
- (2) Certify that the Title V facility is in compliance with all requirements of 40 CFR Part 68 including the registration and submission of the RMP.



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- (e) If the Title V facility is subject to 40 CFR Part 68, the permittee shall maintain records supporting the implementation of an accidental release program for five (5) years in accordance with 40 CFR § 68.200.
- (f) When the Title V facility is subject to the accidental release program requirements of Section 112(r) of the Clean Air Act and 40 CFR Part 68, appropriate enforcement action will be taken by the Department if:
- (1) The permittee fails to register and submit the RMP or a revised plan pursuant to 40 CFR Part 68.
- (2) The permittee fails to submit a compliance schedule or include a statement in the compliance certification required under Section B, Condition #026 of this permit that the Title V facility is in compliance with the requirements of Section 112(r) of the Clean Air Act, 40 CFR Part 68, and 25 Pa. Code § 127.512(i).

#### #029 [25 Pa. Code § 127.512(e)]

#### **Approved Economic Incentives and Emission Trading Programs**

No permit revision shall be required under approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this Title V permit.

### #030 [25 Pa. Code §§ 127.516, 127.450(d), 127.449(f) & 127.462(g)]

# **Permit Shield**

- (a) The permittee's compliance with the conditions of this permit shall be deemed in compliance with applicable requirements (as defined in 25 Pa. Code § 121.1) as of the date of permit issuance if either of the following applies:
  - (1) The applicable requirements are included and are specifically identified in this permit.
- (2) The Department specifically identifies in the permit other requirements that are not applicable to the permitted facility or source.
- (b) Nothing in 25 Pa. Code § 127.516 or the Title V permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act, including the authority of the Administrator of the EPA provided thereunder.
  - (2) The liability of the permittee for a violation of an applicable requirement prior to the time of permit issuance.
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act.
  - (4) The ability of the EPA to obtain information from the permittee under Section 114 of the Clean Air Act.
- (c) Unless precluded by the Clean Air Act or regulations thereunder, final action by the Department incorporating a significant permit modification in this Title V Permit shall be covered by the permit shield at the time that the permit containing the significant modification is issued.

#### #031 [25 Pa. Code §135.3]

#### Reporting

- (a) The permittee shall submit by March 1 of each year an annual emissions report for the preceding calendar year. The report shall include information for all active previously reported sources, new sources which were first operated during the preceding calendar year, and sources modified during the same period which were not previously reported. All air emissions from the facility should be estimated and reported.
- (b) A source owner or operator may request an extension of time from the Department for the filing of an annual emissions report, and the Department may grant the extension for reasonable cause.

#### #032 [25 Pa. Code §135.4]

### **Report Format**

Emissions reports shall contain sufficient information to enable the Department to complete its emission inventory. Emissions reports shall be made by the source owner or operator in a format specified by the Department.





# **SECTION C.** Site Level Requirements

### I. RESTRICTIONS.

# **Emission Restriction(s).**

#### # 001 [25 Pa. Code §123.1]

#### Prohibition of certain fugitive emissions

No person may permit the emission into the outdoor atmosphere of fugitive air contaminants from a source other than the following:

- (1) Construction or demolition of buildings or structures.
- (2) Grading, paving, and maintenance of roads and streets.
- (3) Use of roads and streets. Emissions from material in or on trucks, railroad cars, and other vehicular equipment are not considered as emissions from use of roads and streets.
  - (4) Clearing of land.
  - (5) Stockpiling of materials.
  - (6) Open burning operations.
  - (7) Blasting in open pit mines. Emissions from drilling are not considered as emissions from blasting.
- (8) Sources and classes of sources other than those identified above, for which the permittee has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
  - (a) The emissions are of minor significance with respect to causing air pollution.
- (b) The emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

# # 002 [25 Pa. Code §123.2]

### Fugitive particulate matter

No person may permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in § 123.1(a)(1) -- (8) (Condition # 001 of this section) above if the emissions are visible at the point the emissions pass outside the person's property.

#### # 003 [25 Pa. Code §123.41]

#### Limitations

A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:

- (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 60% at any time.

# # 004 [25 Pa. Code §123.42]

# **Exceptions**

The limitations of 123.41 (relating to limitations) shall not apply to a visible emission in any of the following instances:

- (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.
  - (3) When the emission results from sources specified in 123.1(a)(1) -- (8) (Condition # 001 of this section).
  - (4) When arising from the production of agricultural commodities in their unmanufactured state on the premises of the





# **SECTION C.** Site Level Requirements

farm operation.

#### # 005 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is derived from the permittee requesting these limitations]

- (a) The combined total hazardous air pollutant emissions, from all sources at the facility, shall not equal or exceed 25 tons in any 12 consecutive month period.
- (b) The combined emissions of any single hazardous air pollutant, from all sources at the facility, shall not equal or exceed 10 tons in any 12 consecutive month period.

### # 006 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

The boilers located at the facility's West Campus Steam Plant, which include Source IDs 031B, 032B, and 035, shall not emit sulfur oxides (SOx, expressed as SO2) at rates in excess of 0.0006 lb/MMBtu of heat input when combusting natural gas and 0.051 lb/MMBtu of heat input when combusting #2 fuel oil.

#### Fuel Restriction(s).

# # 007 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 123.22(a)(2)]

- (a) Any fuel oil burned in any source at this facility shall be #2 or lighter virgin fuel oil to which no reclaimed or waste oil or other waste materials have been added.
- (b) The sulfur content of #2 fuel oil shall not, at any time, exceed 0.05% (by weight).

### II. TESTING REQUIREMENTS.

### # 008 [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]

- (a) Pursuant to 25 Pa. Code § 139.3, at least 90 calendar days prior to commencing a EPA reference method testing program, a test protocol shall be submitted to the Department for review and approval. The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (b) Pursuant to 25 Pa. Code § 139.3, at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the appropriate Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.
- (c) Pursuant to 40 CFR § 60.8(a), 40 CFR § 61.13(f) and 40 CFR § 63.7(g), complete test reports shall be submitted to the Department no later than 60 calendar days after completion of the on-site testing portion of an EPA reference method test program.
- (d) Pursuant to 25 Pa. Code § 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:
- 1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
- 2. Permit number(s) and condition(s) which are the basis for the evaluation.



# PA STATE UNIV/UNIV PARK CAMPUS

#### SECTION C. **Site Level Requirements**

- 3. Summary of results with respect to each applicable permit condition.
- 4. Statement of compliance or non-compliance with each applicable permit condition.
- (e) Pursuant to 25 Pa. Code § 139.3, all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.
- (f) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.
- (g) Pursuant to 25 Pa. Code § § 139.53(a)(1) and 139.53(a)(3), two (2) copies of the submittal shall be sent to the Pennsylvania Department of Environmental Protection, Northcentral Regional Office, Air Quality Program Manager, 208 West Third Street, Suite 101, Williamsport PA, 17701 with deadlines verified through document postmarks.
- (h) The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

#### # 009 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

(a) The permittee shall perform tests or provide a fuel certification report for the type and the percent sulfur by weight for each shipment of fuel delivered to this facility,

OR

- (a) The permittee shall provide a fuel certification report obtained from the fuel oil supplier once a year stating that fuel delivered to the facility is #2 fuel oil and the sulfur percentage for each shipment of fuel delivered to the facility during the year shall not exceed 0.05% sulfur by weight.
- (b) All testing and fuel certification reports shall be in accordance with the provisions of 25 Pa. Code Chapter 139.

#### # 010 [25 Pa. Code §127.513]

Compliance certification.

The Department specifically reserves the right to require testing of a source at any time if it has the reason to believe that the emission limitations set forth in any condition of this permit are being exceeded.

#### # 011 [25 Pa. Code §139.1]

### Sampling facilities.

Upon the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on a source. The Department will set forth, in the request, the time period in which the facilities shall be provided, as well as the specifications for such facilities.

#### # 012 [25 Pa. Code §139.11]

#### General requirements.

- (1) As specified in 25 Pa. Code Section 139.11(1), performance tests shall be conducted while the respective source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Department.
- (2) As specified in 25 Pa. Code Section 139.11(2), the Department will consider test results for approval where sufficient information is provided to verify the source conditions existing at the time of the test and where adequate data is available to show the manner in which the test was conducted. Information submitted to the Department shall include, at a minimum all of the following:
- (a) A thorough source description, including a description of any air cleaning devices and the flue.
- (b) Process conditions, for example, the charging rate of raw material or rate of production of final product, boiler pressure, oven temperature, and other conditions which may affect emissions from the process.
- (c) The location of the sampling ports.





# **SECTION C.** Site Level Requirements

- (d) Effluent characteristics, including velocity, temperature, moisture content, gas density (percentage CO, CO2, O2 and N2), static and barometric pressures.
- (e) Sample collection techniques employed, including procedures used, equipment descriptions and data to verify that isokinetic sampling for particulate matter collection occurred and that acceptable test conditions were met.
- (f) Laboratory procedures and results.
- (g) Calculated results.

#### III. MONITORING REQUIREMENTS.

# # 013 [25 Pa. Code §123.43]

#### Measuring techniques

Visible emissions may be measured using either of the following:

- (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

#### # 014 [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]

- (a) The permittee shall conduct a weekly inspection around the West Campus Steam Plant (WCSP), East Campus Steam Plant (ECSP) and incinerator (Source ID 001) locations during daylight hours when the plants and incinerator are in operation to detect visible emissions, fugitive visible emissions and malodorous air emissions. Weekly inspections are necessary to determine:
- (1) the presence of visible emissions,
- (2) the presence of fugitive visible emissions beyond the plant property boundaries,
- (3) the presence of malodors beyond the boundaries of the facility.
- (b) All detected visible emissions, visible fugitive emissions or malodors that have the potential to exceed applicable limits shall be reported to the manager of the facility.

#### IV. RECORDKEEPING REQUIREMENTS.

#### # 015 [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]

- (a) The permittee shall maintain a logbook of the facility's weekly inspections performed. The logbook shall include the name of the company representative performing the inspection, the date and time of inspections, any instances of exceedances of visible emissions limitations, visible fugitive emissions limitations and malodorous air emissions limitations, and the name of the manager informed if a potential exceedance is observed. The permittee shall also record any and all corrective action(s) taken to abate each recorded deviation to prevent future occurrences.
- (b) Records shall be retained for a minimum of 5 years and shall be made available to the Department upon request.

#### # 016 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

(a) The permittee shall keep records of tests or fuel certification reports of the percent sulfur by weight for each delivery of the #2 fuel oil or diesel fuel delivered to the facility to verify compliance with the 0.05% by weight sulfur content limitation.

OR

(a) The permittee shall keep records of fuel certification reports obtained yearly form the #2 fuel oil supplier containing the name of the fuel oil supplier and stating that the sulfur percentage for each shipment of #2 fuel oil delivered to the facility





# **SECTION C.** Site Level Requirements

during the year shall not exceed 0.05% sulfur by weight.

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

#### # 017 [25 Pa. Code §135.5]

#### Recordkeeping

- (a) The permittee shall maintain such records, including computerized records, as may be necessary to comply with 25 Pa. Code §§135.3 and 135.21. These may include records of production, fuel usage, equipment maintenance or other information determined by the Department to be necessary for identification and quantification of air contaminant emissions.
- (b) Any records maintained pursuant to this condition shall be retained for at least five (5) years and shall be made available to the Department upon request.

#### V. REPORTING REQUIREMENTS.

#### # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit all requested reports in accordance with the Department's suggested format.

#### # 019 [25 Pa. Code §127.442]

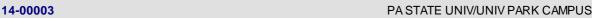
#### Reporting requirements.

- (a) The permittee shall report malfunctions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (b) Failures that are caused in part by poor maintenance or careless operation shall be reported as excess emissions or deviations from the operating permit requirements.
- (c) When the malfunction, excess emissions or deviation from this operating permit requirements poses an imminent danger to the public health, safety, welfare, or environment shall be reported by telephone to the Department and the County Emergency Management Agency within one (1) hour after the incident. The owner or operator shall submit a written report of instances of such incidents to the Department within three (3) business days of the telephone report.
- (d) Except as reported to the Department in accordance with 25 Pa. Code Chapter 139 and the Department's Continuous Source Monitoring Manual, any malfunction or excess emissions that is not subject to the notice requirements of subsection (c) of this operating permit condition shall be reported to the Department within 24 hours of discovery or the next business day. In notifying the Department, the permittee shall describe the following:
  - (i) name and location of the facility;
  - (ii) nature and cause of the malfunction or breakdown;
  - (iii) time when the malfunction or breakdown was first observed;
  - (iv) expected duration of excess emissions;
  - (v) estimated rate of emissions; and
  - (vi) corrective actions or preventative measures taken.
- (e) The permittee shall notify the Department within 24 hours, or the next business day, when corrective measures have been accomplished.
- (f) Upon the request of the Department, the permittee shall submit a full written report to the Regional Air Program Manager within 15 days of the malfunction, excess emissions or deviation from the operating permit requirements.

#### # 020 [25 Pa. Code §135.21]

### **Emission statements**

(a) The permittee shall provide the Department with a statement of each stationary source in a form as prescribed by the



#### SECTION C. **Site Level Requirements**

Department, showing the actual emissions of oxides of nitrogen from the permitted facility for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based.

- (b) The annual emission statements are due by March 1 for the preceding calendar year and shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate. The Emission Statement shall provide data consistent with requirements and guidance developed by the EPA.
- (c) The Department may require more frequent submittals if the Department determines that one or more of the following applies:
- (1) A more frequent submission is required by the EPA.
- (2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the Air Pollution Control Act.

#### # 021 [25 Pa. Code §135.3] Reporting

- (a) Aperson who owns or operates a source to which 25 Pa. Code 135 applies, and who has previously been advised by the Department to submit an annual Air Information Management Systems (AIMS) emissions report, shall, by March 1 of each year, submit an AIMS report for the preceding calendar year. The report shall include information for all previouslyreported sources, new sources which were first operated during the preceding calendar year and sources modified during the same period which were not previously reported.
- (b) A person who receives initial notification by the Department that an annual AIMS report is necessary shall submit an initial AIMS report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.
- (c) A source owner or operator may request an extension of time from the Department for the filing of an AIMS report, and the Department may grant the extension for reasonable cause.

#### VI WORK PRACTICE REQUIREMENTS.

#### # 022 [25 Pa. Code §123.1]

# Prohibition of certain fugitive emissions

The permittee shall take all reasonable actions for any source specified in (1) through (8) in Condition #001 herein to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Applications of asphalt, oil, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which may give rise to airborne dusts.
  - (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

# VII. ADDITIONAL REQUIREMENTS.

#### # 023 [25 Pa. Code §121.7]

#### Prohibition of air pollution.

No person may permit air pollution as that term is defined in the Pennsylvania Air Pollution Control Act (35 P.S. §§ 4001-4015).





# **SECTION C.** Site Level Requirements

### # 024 [25 Pa. Code §123.31]

#### Limitations

The permittee shall not permit the emission of any malodorous air contaminants into the outdoor atmosphere from any source in such a manner that the malodors are detectable outside the property of the person on whose land the source is being operated.

### # 025 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Nothing in this Operating Permit relieves the facility owner or operator from the obligation to comply with all applicable federal, state and local laws and regulations.

### # 026 [25 Pa. Code §129.14]

### **Open burning operations**

The permittee shall not permit the open burning of material at this facility unless in accordance with 25 Pa. Code Section 129.14.

# VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this permit including Section B (relating to Title V General Requirements).

#### IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

# \*\*\* Permit Shield In Effect \*\*\*



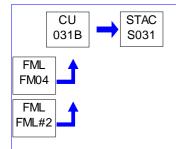
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# **SECTION D.** Source Level Requirements

Source ID: 031B Source Name: WCSP NEW BOILER 1

Source Capacity/Throughput:



#### I. RESTRICTIONS.

### **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.11]

#### **Combustion units**

A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

- (1) The rate of 0.4 pound per million British thermal unit (lb/MMBtu) of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.
- (2) The rate determined by the following formula:  $A = 3.6E^{-1}(-0.56)$ , where A = Allowable emissions in lb/MMBtu of heat input, and E = Heat input to the combustion unit in MMBtu per hour (MMBtu/hr), when E is equal to or greater than 50 but less than 600.

#### # 002 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall not emit air contaminants at rates in excess of the following limitations while firing natural gas:

- (1) 0.04 lb/MMBtu of heat input for nitrogen oxides, NOx (expressed as NO2);
- (2) 0.047 lb/MMBtu of heat input for carbon monoxide, (CO), during normal boiler operation;
- (3) 0.007 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 0.007 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5):
- (5) 0.004 lb/MMBtu of heat input for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 120 lb/MMBtu of heat input for carbon dioxide, CO2.

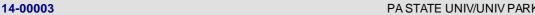
The restriction specified in (1) [NOx lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all hours in each 30 day period in which the respective fuel was combusted).

The restriction specified in (2) [CO lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all normal operating hours in each 30-day period in which the respective fuel was combusted). Transitional operating hours are excluded from 30-day, steam generating operating day, compliance averages for CO.

# # 003 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall not emit air contaminants at rates in excess of the following limitations while firing distillate oil:





#### SECTION D. **Source Level Requirements**

- (1) 0.10 lb/MMBtu of heat input for nitrogen oxides. NOx (expressed as NO2):
- (2) 0.04 lb/MMBtu of heat input for carbon monoxide, (CO), during normal boiler operation;
- (3) 0.03 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 0.03 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5);
- (5) 0.004 lb/MMBtu of heat input for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 159 lb/MMBtu of heat input for carbon dioxide, CO2.

The restriction specified in (1) [NOx lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all hours in each 30 day period in which the respective fuel was combusted).

The restriction specified in (2) [CO lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all normal operating hours in each 30-day period in which the respective fuel was combusted). Transitional operating hours are excluded from 30-day, steam generating operating day, compliance averages for CO.

#### # 004 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the boilers associated with Source IDs 031B and 032B shall not emit hazardous air pollutants in a manner that the rate exceeds 2.8 tons in any 12 consecutive month period.

#### # 005 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is taken from the provisions specified in 25 Pa. Code § 127.203a]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the boilers associated with Source IDs 031B and 032B shall not emit air contaminants in excess of the following limitations:

- (1) 56 tons in any 12 consecutive months for nitrogen oxides, NOx (expressed as NO2);
- (2) 52 tons in any 12 consecutive months for carbon monoxide, CO;
- (3) 10.8 tons in any 12 consecutive months for total particulate matter (condensable and filterable), having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 10.8 tons in any 12 consecutive months for total particulate matter (condensable and filterable), having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5);
- (5) 5.2 tons in any 12 consecutive months for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 157,384 tons in any 12 consecutive month period of greenhouse gas emissions, GHG (expressed as CO2e).

#### # 006 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the atmosphere of visible air contaminants in such a manner that the opacity of the emission from the boilers associated with Source IDs 031B and 032B is greater than:

- (1) 10% for a period or periods aggregating more than 3 minutes in any 1 hour;
- (2) 20% at any time.

#### [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 60.44b(h), the NOx emissions restrictions apply at all times including periods of startup, shutdown, or malfunction.

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# **SECTION D.** Source Level Requirements

# Fuel Restriction(s).

#### # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The provisions under 40 CFR §§ 60.42b(k)(2) and 60.43b(h)(5), which exempts the unit from the SO2 and PM standards of 40 CFR §§ 60.42b and 60.43b, respectively, apply to each of the boilers associated with Source IDs 031B and 032B based on the requirement to only fire pipeline-quality natural gas and distillate oil with maximum, 500 ppm sulfur (by weight). The requirement to only operate the boilers with these types of fuels satisfies the very low sulfur oil provisions at 40 CFR § 60.41b.

#### # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition will assure compliance with the provisions of 25 Pa. Code Section 123.22]

- (a) Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall only fire pipeline-quality natural gas in the boilers associated with Source IDs 031B and 032B, except as noted in (b).
- (b) The permittee may fire distillate oil that contains no more than 0.05 weight percent sulfur if:
- (1) No waste oil, waste-derived oil, or other waste materials has been added to the distillate oil;
- (2) Distillate oil firing only occurs during periods of emergency gas curtailments, gas supply interruption and periodic testing.
- (3) Periodic testing of distillate fuel does not exceed a combined total of 48 hours during any calendar year.

# **Throughput Restriction(s).**

### # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is taken from the provisions specified in 25 Pa. Code § 127.203a]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, (a) The firing of natural gas in the boilers associated with Source IDs 031B and 032B shall never exceed 2,574,000 MMBtu of heat input in any 12 consecutive month period:

- (b) The firing of distillate oil in the boilers associated with Source IDs 031B and 032B shall never exceed 152,000 MMBtu of heat input in any 12 consecutive month period;
- (c) For every 1 MMBtu of heat input from the firing of distillate oil, the heat input limit for natural gas which is established in (a) shall be reduced by 1.19 MMBtu.

# # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The emissions cap for Source IDs 031B and 032B is a compliance cap, imposed for the purpose of limiting emission increases, for NSR/PSD purposes, related to the construction of Source IDs 031B and 032B as part of the WCSP Improvement Project. This cap does not provide any relief from the requirement to conduct NSR/PSD applicability determination for any future physical change or change in the method of operation of either of these WCSP boilers. By accepting this cap and agreeing to consider these two WCSP boilers as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve both boilers.

# II. TESTING REQUIREMENTS.

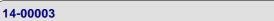
# # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR Section 60.46b]

After the initial 30-day test is performed, the permittee shall upon request by the Department determine compliance with the NOx standards in 40 CFR Section 60.44b through the use of another 30-day performance test in accordance with the initial 30-day test requirements as well as the methods and procedures acceptable to the Department.

SECTION D.



**Source Level Requirements** 



#### # 013 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

- (a) The permittee shall conduct performance tests on Source IDs 031B and 032B using Method 9 in appendix A-4 of 40 CFR Part 60, including the procedures at §60.11 as well as 25 Pa. Code 123.43. If during the initial 60 minutes of observation there are no 15-second observations greater than or equal to 10 percent, the observation period may be reduced from 3 hours to 60 minutes.
- (b) The frequency of Method 9 testing shall be determined by the most recent Method 9 performance test results in accordance with parts (c)(1) and (c)(2) of this condition.
- (c)(1) If no visible emissions are observed, a subsequent Method 9 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted; (2) If visible emissions are observed but the maximum rolling 3-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 30 calendar days from the date that the most recent performance test was conducted.

# # 014 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provisions specified in 25 Pa. Code Section 127.511]

- (a) Within 36 months of the previous stack testing of the boilers associated with Source IDs 031B and 032B, the permittee shall conduct EPA reference method testing on each respective unit for nitrogen oxides, carbon monoxide, carbon dioxide, volatile organic compounds, particulate matter, total PM10 and total PM2.5 emissions to verify compliance with the emission limitations, including Method 9 and 25 Pa. Code Section 123.43 testing to verify compliance with the opacity limitations specified herein.
- (b) All stack testing shall be performed at the boiler's maximum routine operating conditions while firing natural gas.

# III. MONITORING REQUIREMENTS.

#### # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provisions specified in 40 CFR § 60.46b]

- (a) During periods when subsequent 30-day performance tests are not requested, the permittee shall monitor the NOx and CO emissions from Source IDs 031B and 032B using continuous monitoring systems and their data acquisition systems in order to determine 30-day rolling average emission rates for each steam generating unit operating day, as required herein.
- (b) A new NOx lb/MMBtu 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly emission data for the preceding 30 steam generating unit operating days. The hourly and 30-day NOx lb/MMBtu records will be used to prepare excess emission reports.
- (c) For NOx lb/MMBtu restrictions, steam generating unit operating day shall be as defined in 40 CFR 60.41b and mean a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.
- (d) A new CO lb/MMBtu 30-day rolling average emission rate is calculated for each steam generating unit operating day that contains any hours of normal boiler operation. The average shall be calculated using all the normal boiler operation hourly emission data for the preceding 30 steam generating unit operating days. Transitional operating hours shall be excluded from all CO lb/MMBtu 30-day compliance averages. The hourly and 30-day CO lb/MMBtu normal operation records will be used to prepare excess emission reports.
- (e) For CO lb/MMBtu emissions restrictions, steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit and one or more hour(s) of normal boiler operation also occurred within the same 24-hour period. It is not necessary for fuel to be combusted continuously for the entire 24-hour period. 24-hour periods (i.e., calendar days) containing only transitional

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# **SECTION D.** Source Level Requirements

hours of boiler operation are not considered a steam generating operating day for CO lb/MMBtu compliance and shall be excluded from the CO lb/MMBtu 30-day rolling average emission rate calculations.

#### # 016 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

- (a) In accordance with the provisions of 40 CFR § 60.48b, the permittee shall install, maintain and operate a predictive emission monitoring system (PEMS) for NOx or a continuous emission monitoring system (CEMS) for NOx on each of the boilers associated with Source IDs 031B and 032B.
- (b) In accordance with Section 127.12(a)(3) of 25 Pa. Code Chapter 127, the permittee shall install, maintain and operate a PEMS for CO, or another type of continuous monitoring system as approved by the Department, on each of the boilers associated with Source IDs 031B and 032B.
- (c) Pursuant to 25 Pa. Code Section 139.101, the continuous monitoring systems required herein shall be certified as well as installed, maintained and operated in accordance with the requirements specified in the Department's Continuous Source Monitoring Manual.

#### # 017 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code §§ 139.101(1)(iv), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(8), 139.101(12), 139.101(14) and 139.101(15))]

- (a) Continuous Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the "Quality Assurance" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.
- (b) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

#### IV. RECORDKEEPING REQUIREMENTS.

# # 018 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

- (a) The permittee shall keep accurate and comprehensive records for Source IDs 031B and 032B of each occurrence of distillate oil firing in the boilers to verify that the units comply with the applicable requirements herein.
- (b) The information kept for the records shall include a statement confirming if distillate oil firing occurred on a monthly basis, at least.
- (c) For each month when distillate oil was fired, the information kept for the record shall include all of the following along with the supporting documentation as requested by the Department:
- (1) reasoning for distillate oil firing;
- (2) amount of distillate oil fired for each steam generating unit operating day including the monthly totals and rolling 12-month totals;
- (3) specific hours during which distillate oil is combusted;
- (4) hourly data (lb/MMBtu, steam lb/hr, and operation status of the boiler [process down, startup, shutdown, and normal operation]) generated by the continuous monitoring systems required herein;
- (5) annual emission calculations including monthly totals and rolling 12-month totals for NOx, CO, particulate matter, total PM10, total PM2.5, VOC, HAP and GHG emissions.
- (d) The permittee shall record each transitional period event and its duration.
- (e) Hourly mass emissions data generated by the predictive emission monitoring systems for Source IDs 031B and 032B for both normal operation and transitional periods shall be used in the calculations to determine the rolling 12-month totals

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# **SECTION D.** Source Level Requirements

for CO and NOx emissions.

(f) In accordance with the provisions of 25 Pa. Code § 135.4, the permittee shall upon request prepare semiannual reports of the records kept pursuant to parts (a) through (e) of this condition in a format specified by the Department. A demonstration of compliance with the restriction to limit each transitional period event to 360-minutes in duration per event shall be included within this semiannual report.

# # 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 70.6, all information generated to comply with the monitoring and recordkeeping conditions herein shall be kept for a period of five (5) years and shall be made available to the Department upon request.

#### # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep accurate and comprehensive records of the following information for the boilers associated with Source IDs 031B and 032B:

- (1) A copy of the stack test reports for any testing performed on the boilers;
- (2) The amount of natural gas and distillate oil fired in the boilers during each day (each day must have a value for the amount of fuel, i.e. if Source ID 031B is not operated, for each day of non-operation, 0 would be the recorded value).

#### # 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

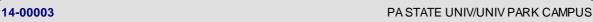
- (a) The permittee shall keep accurate and comprehensive records for Source IDs 031B and 032B of natural gas firing in the boilers to verify that the units comply with the applicable requirements herein.
- (b) On a monthly basis, the information kept for the record shall, at least include all of the following along with the supporting documentation as requested by the Department:
- (1) the amount of natural gas fired for each steam generating unit operating day including the monthly totals and rolling 12-month totals;
- (2) specific hours during which natural gas is combusted;
- (3) hourly data (lb/MMBtu, steam lb/hr, and operational status of the boiler [process down, startup, shutdown, and normal operation]) generated by the continuous monitoring systems required herein;
- (4) annual emission calculations including monthly totals and rolling 12-month totals for NOx, CO, particulate matter, total PM10, total PM2.5, VOC, HAP and GHG emissions.
- (c) The permittee shall record each transitional period event and its duration.
- (d) Hourly mass emissions data generated by the continuous monitoring systems for Source IDs 031B and 032B for both normal operation and transitional periods shall be used in the calculations to determine the rolling 12-month totals for CO and NOx emissions.
- (e) In accordance with the provisions of 25 Pa. Code § 135.4, the permittee shall upon request prepare reports of the records kept pursuant to parts (a) through (d) of this condition in a format specified by the Department. The Department's request will specify the frequency of report submission. A demonstration of compliance with the restriction to limit each transitional period event to 360-minutes in duration per event shall be included within this report.

#### # 022 [25 Pa. Code §127.441]

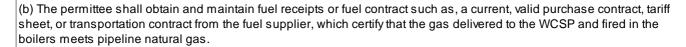
Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provision of 40 CFR Section 60.46b(i) and 60.49b(r)]

(a) The permittee shall obtain and maintain fuel receipts or fuel contract such as, a current, valid purchase contract, tariff sheet, or transportation contract from the fuel supplier, which certify that each shipment of oil received for the 25,000-gallon tanks and fired in Source IDs 031B and 032B meets the definition of distillate oil and the maximum 500 ppm, by weight, sulfur content requirements.



#### SECTION D. **Source Level Requirements**



- (c) According to 25 Pa. Code §§ 127.12b and 139.16, the Department reserves the right to require the permittee conduct sampling at each of the 25,000-gallon distillate oil tanks and at a location which will provide representative samples of the natural gas delivered to the plant, on regular intervals and conduct analysis of the fuel samples to verify the average of high heat values that are used to verify compliance with the heat input throughput restrictions specified herein.
- (1) The permittee shall submit a site-specific fuel analysis plan to the Department for review within 60 days of the date of the reauest.
- (2) The fuel analysis plan shall include a minimum initial sampling after each shipment of distillate oil and weekly sampling of das.
- (3) Each sampling analysis report shall contain, at a minimum, the following information:
- (i) The high heat value of the sample (Btu/gallon, Btu/scf);
- (ii) The method used to determine the high heat value. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;
- (4) The sampling frequency can be revised based on the average results of the sampling.

#### # 023 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 60.49b(g), pertaining to the NOx standards under §60.44b, the permittee shall maintain accurate and comprehensive records of the following information for each day that Source ID 031B operates and for each day that Source ID 032B operates (i.e. for each steam generating unit operating day as defined in 40 CFR 60.41b):

- (1) Calendar date;
- (2) The average hourly NOx emission rates (used to determine the 30-day rolling average emission rate) as determined by the continuous monitoring system;
- (3) The 30-day rolling average emission rates (lb/MMBtu heat input) for NOx as determined at the end of each steam generating unit operating day by the continuous monitoring system and its data acquisition system;
- (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
- (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- (7) Identification of "F" factor used for calculations, method of determination, and type of fuel fired.

#### # 024 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is derived 25 Pa. Code§§ 139.101(5) and 139.101(12)]

- (a) The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), and the "Record Keeping and Reporting" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001, and the recordkeeping requirements established in 40 CFR §§ 60.40b through 60.49b.
- (b) Records shall be retained for at least 5 years and shall be made available to the Department upon request.
- (c) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute





# **SECTION D.** Source Level Requirements

compliance with this permit condition.

#### V. REPORTING REQUIREMENTS.

#### # 025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall record and submit semi-annual reports of the predicted nitrogen oxide emission rates and the steam generating unit operating conditions identified in the PEMS plan, including steam generating unit load and all information required by the provisions specified in 40 CFR Sections 60.49b(g)(1) - (7).

# 026 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) In accordance with the provisions of 40 CFR §§ 60.46b(e)(4) and 60.49b(h), the permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period on a semiannual basis.
- (b) The excess emission reports shall include all of the information recorded pursuant to 40 CFR 60.49b(g)(1) (7) during the days in the reporting period, as required by 40 CFR § 60.49b(i).
- (c) Semiannual reports shall be submitted to the Department and EPA within 30 days of the end of the reporting period as required by 40 CFR 60.49b(w). For the July 1 through December 31 reporting period of the preceding year, the report is due January 31 and for the January 1 through June 30 reporting period of the concurrent year, the report is due July 31.

# 027 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provision of 40 CFR Section 60.49b(r)]

The permittee shall include in the semiannual reports a statement certifying that only pipeline-quality natural gas and distillate oil were fired in the boilers associated with Source IDs 031B and 032B during the reporting period.

# 028 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived 25 Pa. Code §§ 139.101(1)(iv), 139.101(10) and 139.101(12)]

- (a) The permittee shall submit quarterly reports for the continuous monitoring systems to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements as established in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001, and the reporting requirements established in 40 CFR § 60.49b
- (b) Excluding CO lb/MMBtu emissions, the permittee shall report hourly emissions in the units of the applicable emissions standard for all periods of unit operation, including startup, shutdown and malfunction. CO lb/MMBtu emissions during startup and shutdown are exempt from this requirement.
- (c) The permittee shall submit to the Department's Continuous Emissions Monitoring Section within 60 days of the revision date of this Title V Operating Permit a request to modify the certified CO lb/MMBtu PEMS.
- (d) Initial quarterly reports following system certification or recertification shall be submitted to the Department within 35 days following the date upon which the Department notifies the permittee, in writing, of the approval of the continuous monitoring system for use in monitoring for compliance with NOx and CO limitations.
- (e) Subsequent guarterly reports shall be submitted to the Department within 30 days after the end of each calendar guarter.
- (f) Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this plan approval, unless approved in advance by the Department in writing.





# **SECTION D.** Source Level Requirements

(g) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

#### VI. WORK PRACTICE REQUIREMENTS.

#### # 029 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall operate and maintain Source IDs 031B and 032B in a manner consistent with good air pollution control and good combustion practices for minimizing emissions at all times, including during startup, shutdown, and malfunction events.

#### # 030 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Transitional periods include cold startups, hot standby startups, safety startups, and shutdowns.

- (a) Each transitional event associated with Source IDs 031B and 032B shall not exceed 360-minutes in duration per event.
- (b) Startups and shutdowns of the boilers shall be conducted in accordance with manufacturer guidelines and in a manner consistent with good air pollution control practices for minimizing emissions.

#### VII. ADDITIONAL REQUIREMENTS.

#### # 031 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to 40 CFR §63.11195(e), gas-fired boilers are exempted from the requirements of 40 CFR Part 63 Subpart JJJJJJ - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercia, and Institutional Boilers Area Sources.

Source IDs 031B and 032B are not subject to any requirements under Subpart JJJJJJ provided that they burn gaseous fuels not combined with any solid fuels and burn liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

### # 032 [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.]

- (a) Source IDs 031B and 032B consists of two (2) natural gas-fired, steam generating units (also sometimes referenced herein as boilers), with a nominal rated capacity of 150,000 pounds of steam per hour at 250 psig steam superheated to 530 °F. The boilers also fire distillate oil as the back-up fuel.
- (b) Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall be equipped with a low NOx burner and flue gas recirculation. The low-NOx burner in each boiler shall not have a maximum, rated heat input capacity greater than 198 MMBtu/hr for natural gas firing and 190 MMBtu/hr for distillate oil firing.

#### # 033 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

The steam generating units associated with Source IDs 031B and 032B are subject to Title 40 Part 60 Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). The permittee shall comply with all applicable provisions specified in 40 CFR Sections 60.40b - 60.49b.

#### # 034 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

The following definitions apply to the New Boiler 1 (Source ID 031B) and New Boiler 2 (Source ID 032B) operations:



# **SECTION D.** Source Level Requirements

- (a) "Transitional Period" means any startup or shutdown.
- (b) "Startup" is defined as the period following process down. Startup begins when fuel begins flowing to the boiler. Startup ends when the boiler has achieved 25% of the boiler design capacity (37,500 lb/hr steam) or 360 consecutive operating minutes of startup mode have elapsed.
- (c) "Shutdown" is defined as the period following startup or normal operation and begins when the steam load is manually lowered to below 25% of the boiler design capacity (37,500 lb/hr steam) and shall not exceed 360-minutes per shutdown event.
- (d) "Normal" operation is defined as all times except startup, shutdown, and process down.
- (e) "Process down" is defined as the time when the process is not operating AND combustion is not occurring.

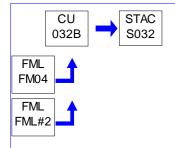
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: 032B Source Name: WCSP NEW BOILER 2

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.11]

#### **Combustion units**

A person may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

- (1) The rate of 0.4 pound per million British thermal unit (lb/MMBtu) of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.
- (2) The rate determined by the following formula:  $A = 3.6E^{-1}(-0.56)$ , where A = Allowable emissions in lb/MMBtu of heat input, and E = Heat input to the combustion unit in MMBtu per hour (MMBtu/hr), when E is equal to or greater than 50 but less than 600.

## # 002 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall not emit air contaminants at rates in excess of the following limitations while firing natural gas:

- (1) 0.04 lb/MMBtu of heat input for nitrogen oxides, NOx (expressed as NO2);
- (2) 0.047 lb/MMBtu of heat input for carbon monoxide, (CO), during normal boiler operation;
- (3) 0.007 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 0.007 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5):
- (5) 0.004 lb/MMBtu of heat input for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 120 lb/MMBtu of heat input for carbon dioxide, CO2.

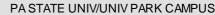
The restriction specified in (1) [NOx lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all hours in each 30 day period in which the respective fuel was combusted).

The restriction specified in (2) [CO lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all normal operating hours in each 30-day period in which the respective fuel was combusted). Transitional operating hours are excluded from 30-day, steam generating operating day, compliance averages for CO.

# # 003 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall not emit air contaminants at rates in excess of the following limitations while firing distillate oil:





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- (1) 0.10 lb/MMBtu of heat input for nitrogen oxides. NOx (expressed as NO2):
- (2) 0.04 lb/MMBtu of heat input for carbon monoxide, (CO), during normal boiler operation;
- (3) 0.03 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 0.03 lb/MMBtu of heat input for total particulate matter (condensable and filterable) having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5);
- (5) 0.004 lb/MMBtu of heat input for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 159 lb/MMBtu of heat input for carbon dioxide, CO2.

The restriction specified in (1) [NOx lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all hours in each 30 day period in which the respective fuel was combusted).

The restriction specified in (2) [CO lb/MMBtu] is determined by a rolling 30-day, steam generating operating day, average (which means the average of all normal operating hours in each 30-day period in which the respective fuel was combusted). Transitional operating hours are excluded from 30-day, steam generating operating day, compliance averages for CO.

#### # 004 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the boilers associated with Source IDs 031B and 032B shall not emit hazardous air pollutants in a manner that the rate exceeds 2.8 tons in any 12 consecutive month period.

#### # 005 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is taken from the provisions specified in 25 Pa. Code § 127.203a]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the boilers associated with Source IDs 031B and 032B shall not emit air contaminants in excess of the following limitations:

- (1) 56 tons in any 12 consecutive months for nitrogen oxides, NOx (expressed as NO2);
- (2) 52 tons in any 12 consecutive months for carbon monoxide, CO;
- (3) 10.8 tons in any 12 consecutive months for total particulate matter (condensable and filterable), having an aerodynamic diameter equal to or less than 10 micrometers (PM10);
- (4) 10.8 tons in any 12 consecutive months for total particulate matter (condensable and filterable), having an aerodynamic diameter equal to or less than 2.5 micrometers (PM2.5);
- (5) 5.2 tons in any 12 consecutive months for volatile organic compounds, VOC (expressed as NMVOC);
- (6) 157,384 tons in any 12 consecutive month period of greenhouse gas emissions, GHG (expressed as CO2e).

#### # 006 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the atmosphere of visible air contaminants in such a manner that the opacity of the emission from the boilers associated with Source IDs 031B and 032B is greater than:

- (1) 10% for a period or periods aggregating more than 3 minutes in any 1 hour;
- (2) 20% at any time.

#### [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 60.44b(h), the NOx emissions restrictions apply at all times including periods of startup, shutdown, or malfunction.





# Fuel Restriction(s).

### # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The provisions under 40 CFR §§ 60.42b(k)(2) and 60.43b(h)(5), which exempts the unit from the SO2 and PM standards of 40 CFR §§ 60.42b and 60.43b, respectively, apply to each of the boilers associated with Source IDs 031B and 032B based on the requirement to only fire pipeline-quality natural gas and distillate oil with maximum, 500 ppm sulfur (by weight). The requirement to only operate the boilers with these types of fuels satisfies the very low sulfur oil provisions at 40 CFR § 60.41b.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition will assure compliance with the provisions of 25 Pa. Code Section 123.22]

- (a) Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall only fire pipeline-quality natural gas in the boilers associated with Source IDs 031B and 032B, except as noted in (b).
- (b) The permittee may fire distillate oil that contains no more than 0.05 weight percent sulfur if:
- (1) No waste oil, waste-derived oil, or other waste materials has been added to the distillate oil;
- (2) Distillate oil firing only occurs during periods of emergency gas curtailments, gas supply interruption and periodic testing.
- (3) Periodic testing of distillate fuel does not exceed a combined total of 48 hours during any calendar year.

# **Throughput Restriction(s).**

# # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is taken from the provisions specified in 25 Pa. Code § 127.203a]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, (a) The firing of natural gas in the boilers associated with Source IDs 031B and 032B shall never exceed 2,574,000 MMBtu of heat input in any 12 consecutive month period:

- (b) The firing of distillate oil in the boilers associated with Source IDs 031B and 032B shall never exceed 152,000 MMBtu of heat input in any 12 consecutive month period;
- (c) For every 1 MMBtu of heat input from the firing of distillate oil, the heat input limit for natural gas which is established in (a) shall be reduced by 1.19 MMBtu.

# # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The emissions cap for Source IDs 031B and 032B is a compliance cap, imposed for the purpose of limiting emission increases, for NSR/PSD purposes, related to the construction of Source IDs 031B and 032B as part of the WCSP Improvement Project. This cap does not provide any relief from the requirement to conduct NSR/PSD applicability determination for any future physical change or change in the method of operation of either of these WCSP boilers. By accepting this cap and agreeing to consider these two WCSP boilers as one emissions unit for NSR/PSD purposes, any future applicability determinations must involve both boilers.

# II. TESTING REQUIREMENTS.

# # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR Section 60.46b]

After the initial 30-day test is performed, the permittee shall upon request by the Department determine compliance with the NOx standards in 40 CFR Section 60.44b through the use of another 30-day performance test in accordance with the initial 30-day test requirements as well as the methods and procedures acceptable to the Department.



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#### SECTION D. **Source Level Requirements**

#### # 013 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

- (a) The permittee shall conduct performance tests on Source IDs 031B and 032B using Method 9 in appendix A-4 of 40 CFR Part 60, including the procedures at §60.11 as well as 25 Pa. Code 123.43. If during the initial 60 minutes of observation there are no 15-second observations greater than or equal to 10 percent, the observation period may be reduced from 3 hours to 60 minutes.
- (b) The frequency of Method 9 testing shall be determined by the most recent Method 9 performance test results in accordance with parts (c)(1) and (c)(2) of this condition.
- (c)(1) If no visible emissions are observed, a subsequent Method 9 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted; (2) If visible emissions are observed but the maximum rolling 3-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 30 calendar days from the date that the most recent performance test was conducted.

#### # 014 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provisions specified in 25 Pa. Code Section 127.511]

- (a) Within 36 months of the previous stack testing of the boilers associated with Source IDs 031B and 032B, the permittee shall conduct EPA reference method testing on each respective unit for nitrogen oxides, carbon monoxide, carbon dioxide, volatile organic compounds, particulate matter, total PM10 and total PM2.5 emissions to verify compliance with the emission limitations, including Method 9 and 25 Pa. Code Section 123.43 testing to verify compliance with the opacity limitations specified herein.
- (b) All stack testing shall be performed at the boiler's maximum routine operating conditions while firing natural gas.

#### MONITORING REQUIREMENTS.

#### # 015 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provisions specified in 40 CFR § 60.46b]

- (a) During periods when subsequent 30-day performance tests are not requested, the permittee shall monitor the NOx and CO emissions from Source IDs 031B and 032B using continuous monitoring systems and their data acquisition systems in order to determine 30-day rolling average emission rates for each steam generating unit operating day, as required herein.
- (b) A new NOx lb/MMBtu 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly emission data for the preceding 30 steam generating unit operating days. The hourly and 30-day NOx lb/MMBtu records will be used to prepare excess emission reports.
- (c) For NOx lb/MMBtu restrictions, steam generating unit operating day shall be as defined in 40 CFR 60.41b and mean a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.
- (d) A new CO lb/MMBtu 30-day rolling average emission rate is calculated for each steam generating unit operating day that contains any hours of normal boiler operation. The average shall be calculated using all the normal boiler operation hourly emission data for the preceding 30 steam generating unit operating days. Transitional operating hours shall be excluded from all CO lb/MMBtu 30-day compliance averages. The hourly and 30-day CO lb/MMBtu normal operation records will be used to prepare excess emission reports.
- (e) For CO lb/MMBtu emissions restrictions, steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit and one or more hour(s) of normal boiler operation also occurred within the same 24-hour period. It is not necessary for fuel to be combusted continuously for the entire 24-hour period. 24-hour periods (i.e., calendar days) containing only transitional



hours of boiler operation are not considered a steam generating operating day for CO lb/MMBtu compliance and shall be excluded from the CO lb/MMBtu 30-day rolling average emission rate calculations.

#### # 016 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

- (a) In accordance with the provisions of 40 CFR § 60.48b, the permittee shall install, maintain and operate a predictive emission monitoring system (PEMS) for NOx or a continuous emission monitoring system (CEMS) for NOx on each of the boilers associated with Source IDs 031B and 032B.
- (b) In accordance with Section 127.12(a)(3) of 25 Pa. Code Chapter 127, the permittee shall install, maintain and operate a PEMS for CO, or another type of continuous monitoring system as approved by the Department, on each of the boilers associated with Source IDs 031B and 032B.
- (c) Pursuant to 25 Pa. Code Section 139.101, the continuous monitoring systems required herein shall be certified as well as installed, maintained and operated in accordance with the requirements specified in the Department's Continuous Source Monitoring Manual.

# # 017 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code §§ 139.101(1)(iv), 139.101(2), 139.101(3), 139.101(4), 139.101(6), 139.101(7), 139.101(8), 139.101(12), 139.101(14) and 139.101(15))]

- (a) Continuous Monitoring Systems and components must be operated and maintained in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) and the "Quality Assurance" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001.
- (b) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

#### IV. RECORDKEEPING REQUIREMENTS.

# # 018 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

- (a) The permittee shall keep accurate and comprehensive records for Source IDs 031B and 032B of each occurrence of distillate oil firing in the boilers to verify that the units comply with the applicable requirements herein.
- (b) The information kept for the records shall include a statement confirming if distillate oil firing occurred on a monthly basis, at least.
- (c) For each month when distillate oil was fired, the information kept for the record shall include all of the following along with the supporting documentation as requested by the Department:
- (1) reasoning for distillate oil firing;
- (2) amount of distillate oil fired for each steam generating unit operating day including the monthly totals and rolling 12-month totals;
- (3) specific hours during which distillate oil is combusted;
- (4) hourly data (lb/MMBtu, steam lb/hr, and operation status of the boiler [process down, startup, shutdown, and normal operation]) generated by the continuous monitoring systems required herein;
- (5) annual emission calculations including monthly totals and rolling 12-month totals for NOx, CO, particulate matter, total PM10, total PM2.5, VOC, HAP and GHG emissions.
- (d) The permittee shall record each transitional period event and its duration.
- (e) Hourly mass emissions data generated by the predictive emission monitoring systems for Source IDs 031B and 032B for both normal operation and transitional periods shall be used in the calculations to determine the rolling 12-month totals



for CO and NOx emissions.

(f) In accordance with the provisions of 25 Pa. Code § 135.4, the permittee shall upon request prepare semiannual reports of the records kept pursuant to parts (a) through (e) of this condition in a format specified by the Department. A demonstration of compliance with the restriction to limit each transitional period event to 360-minutes in duration per event shall be included within this semiannual report.

## # 019 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 70.6, all information generated to comply with the monitoring and recordkeeping conditions herein shall be kept for a period of five (5) years and shall be made available to the Department upon request.

## # 020 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

The permittee shall keep accurate and comprehensive records of the following information for the boilers associated with Source IDs 031B and 032B:

- (1) A copy of the stack test reports for any testing performed on the boilers;
- (2) The amount of natural gas and distillate oil fired in the boilers during each day (each day must have a value for the amount of fuel, i.e. if Source ID 031B is not operated, for each day of non-operation, 0 would be the recorded value).

### # 021 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

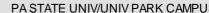
- (a) The permittee shall keep accurate and comprehensive records for Source IDs 031B and 032B of natural gas firing in the boilers to verify that the units comply with the applicable requirements herein.
- (b) On a monthly basis, the information kept for the record shall, at least include all of the following along with the supporting documentation as requested by the Department:
- (1) the amount of natural gas fired for each steam generating unit operating day including the monthly totals and rolling 12-month totals;
- (2) specific hours during which natural gas is combusted;
- (3) hourly data (lb/MMBtu, steam lb/hr, and operational status of the boiler [process down, startup, shutdown, and normal operation]) generated by the continuous monitoring systems required herein;
- (4) annual emission calculations including monthly totals and rolling 12-month totals for NOx, CO, particulate matter, total PM10, total PM2.5, VOC, HAP and GHG emissions.
- (c) The permittee shall record each transitional period event and its duration.
- (d) Hourly mass emissions data generated by the continuous monitoring systems for Source IDs 031B and 032B for both normal operation and transitional periods shall be used in the calculations to determine the rolling 12-month totals for CO and NOx emissions.
- (e) In accordance with the provisions of 25 Pa. Code § 135.4, the permittee shall upon request prepare reports of the records kept pursuant to parts (a) through (d) of this condition in a format specified by the Department. The Department's request will specify the frequency of report submission. A demonstration of compliance with the restriction to limit each transitional period event to 360-minutes in duration per event shall be included within this report.

## # 022 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provision of 40 CFR Section 60.46b(i) and 60.49b(r)]

(a) The permittee shall obtain and maintain fuel receipts or fuel contract such as, a current, valid purchase contract, tariff sheet, or transportation contract from the fuel supplier, which certify that each shipment of oil received for the 25,000-gallon tanks and fired in Source IDs 031B and 032B meets the definition of distillate oil and the maximum 500 ppm, by weight, sulfur content requirements.





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- (b) The permittee shall obtain and maintain fuel receipts or fuel contract such as, a current, valid purchase contract, tariff sheet, or transportation contract from the fuel supplier, which certify that the gas delivered to the WCSP and fired in the boilers meets pipeline natural gas.
- (c) According to 25 Pa. Code §§ 127.12b and 139.16, the Department reserves the right to require the permittee conduct sampling at each of the 25,000-gallon distillate oil tanks and at a location which will provide representative samples of the natural gas delivered to the plant, on regular intervals and conduct analysis of the fuel samples to verify the average of high heat values that are used to verify compliance with the heat input throughput restrictions specified herein.
- (1) The permittee shall submit a site-specific fuel analysis plan to the Department for review within 60 days of the date of the reauest.
- (2) The fuel analysis plan shall include a minimum initial sampling after each shipment of distillate oil and weekly sampling of das.
- (3) Each sampling analysis report shall contain, at a minimum, the following information:
- (i) The high heat value of the sample (Btu/gallon, Btu/scf);
- (ii) The method used to determine the high heat value. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;
- (4) The sampling frequency can be revised based on the average results of the sampling.

#### # 023 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 60.49b(g), pertaining to the NOx standards under §60.44b, the permittee shall maintain accurate and comprehensive records of the following information for each day that Source ID 031B operates and for each day that Source ID 032B operates (i.e. for each steam generating unit operating day as defined in 40 CFR 60.41b):

- (1) Calendar date;
- (2) The average hourly NOx emission rates (used to determine the 30-day rolling average emission rate) as determined by the continuous monitoring system;
- (3) The 30-day rolling average emission rates (lb/MMBtu heat input) for NOx as determined at the end of each steam generating unit operating day by the continuous monitoring system and its data acquisition system;
- (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
- (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- (7) Identification of "F" factor used for calculations, method of determination, and type of fuel fired.

#### # 024 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is derived 25 Pa. Code§§ 139.101(5) and 139.101(12)]

- (a) The permittee shall comply with the recordkeeping requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), and the "Record Keeping and Reporting" requirements in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001, and the recordkeeping requirements established in 40 CFR §§ 60.40b through 60.49b.
- (b) Records shall be retained for at least 5 years and shall be made available to the Department upon request.
- (c) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute

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compliance with this permit condition.

#### V. REPORTING REQUIREMENTS.

#### # 025 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

The permittee shall record and submit semi-annual reports of the predicted nitrogen oxide emission rates and the steam generating unit operating conditions identified in the PEMS plan, including steam generating unit load and all information required by the provisions specified in 40 CFR Sections 60.49b(g)(1) - (7).

#### # 026 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

- (a) In accordance with the provisions of 40 CFR §§ 60.46b(e)(4) and 60.49b(h), the permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period on a semiannual basis.
- (b) The excess emission reports shall include all of the information recorded pursuant to 40 CFR 60.49b(g)(1) (7) during the days in the reporting period, as required by 40 CFR § 60.49b(i).
- (c) Semiannual reports shall be submitted to the Department and EPA within 30 days of the end of the reporting period as required by 40 CFR 60.49b(w). For the July 1 through December 31 reporting period of the preceding year, the report is due January 31 and for the January 1 through June 30 reporting period of the concurrent year, the report is due July 31.

#### # 027 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from the provision of 40 CFR Section 60.49b(r)]

The permittee shall include in the semiannual reports a statement certifying that only pipeline-quality natural gas and distillate oil were fired in the boilers associated with Source IDs 031B and 032B during the reporting period.

#### [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Additional authority for this permit condition is derived 25 Pa. Code §§ 139.101(1)(iv), 139.101(10) and 139.101(12)]

- (a) The permittee shall submit quarterly reports for the continuous monitoring systems to the Department in accordance with the requirements established in 25 Pa. Code Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources), the "Record Keeping and Reporting" requirements as established in the Department's Continuous Source Monitoring Manual, Revision No. 8, 274-0300-001, and the reporting requirements established in 40 CFR § 60.49b
- (b) Excluding CO lb/MMBtu emissions, the permittee shall report hourly emissions in the units of the applicable emissions standard for all periods of unit operation, including startup, shutdown and malfunction. CO lb/MMBtu emissions during startup and shutdown are exempt from this requirement.
- (c) The permittee shall submit to the Department's Continuous Emissions Monitoring Section within 60 days of the revision date of this Title V Operating Permit a request to modify the certified CO lb/MMBtu PEMS.
- (d) Initial quarterly reports following system certification or recertification shall be submitted to the Department within 35 days following the date upon which the Department notifies the permittee, in writing, of the approval of the continuous monitoring system for use in monitoring for compliance with NOx and CO limitations.
- (e) Subsequent quarterly reports shall be submitted to the Department within 30 days after the end of each calendar quarter.
- (f) Failure to submit required reports of continuous emission monitoring within the time periods specified in this Condition, shall constitute violations of this plan approval, unless approved in advance by the Department in writing.





(g) Compliance with any subsequently issued revision to the Continuous Source Monitoring Manual will constitute compliance with this permit condition.

### VI. WORK PRACTICE REQUIREMENTS.

## # 029 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall operate and maintain Source IDs 031B and 032B in a manner consistent with good air pollution control and good combustion practices for minimizing emissions at all times, including during startup, shutdown, and malfunction events.

## # 030 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Transitional periods include cold startups, hot standby startups, safety startups, and shutdowns.

- (a) Each transitional event associated with Source IDs 031B and 032B shall not exceed 360-minutes in duration per event.
- (b) Startups and shutdowns of the boilers shall be conducted in accordance with manufacturer guidelines and in a manner consistent with good air pollution control practices for minimizing emissions.

# VII. ADDITIONAL REQUIREMENTS.

## # 031 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to 40 CFR §63.11195(e), gas-fired boilers are exempted from the requirements of 40 CFR Part 63 Subpart JJJJJJ - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercia, and Institutional Boilers Area Sources.

Source IDs 031B and 032B are not subject to any requirements under Subpart JJJJJJ provided that they burn gaseous fuels not combined with any solid fuels and burn liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

# # 032 [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.]

- (a) Source IDs 031B and 032B consists of two (2) natural gas-fired, steam generating units (also sometimes referenced herein as boilers), with a nominal rated capacity of 150,000 pounds of steam per hour at 250 psig steam superheated to 530 °F. The boilers also fire distillate oil as the back-up fuel.
- (b) Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, each of the boilers associated with Source IDs 031B and 032B shall be equipped with a low NOx burner and flue gas recirculation. The low-NOx burner in each boiler shall not have a maximum, rated heat input capacity greater than 198 MMBtu/hr for natural gas firing and 190 MMBtu/hr for distillate oil firing.

## # 033 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

The steam generating units associated with Source IDs 031B and 032B are subject to Title 40 Part 60 Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units). The permittee shall comply with all applicable provisions specified in 40 CFR Sections 60.40b - 60.49b.

## # 034 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

The following definitions apply to the New Boiler 1 (Source ID 031B) and New Boiler 2 (Source ID 032B) operations:



- (a) "Transitional Period" means any startup or shutdown.
- (b) "Startup" is defined as the period following process down. Startup begins when fuel begins flowing to the boiler. Startup ends when the boiler has achieved 25% of the boiler design capacity (37,500 lb/hr steam) or 360 consecutive operating minutes of startup mode have elapsed.
- (c) "Shutdown" is defined as the period following startup or normal operation and begins when the steam load is manually lowered to below 25% of the boiler design capacity (37,500 lb/hr steam) and shall not exceed 360-minutes per shutdown event.
- (d) "Normal" operation is defined as all times except startup, shutdown, and process down.
- (e) "Process down" is defined as the time when the process is not operating AND combustion is not occurring.

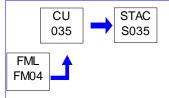
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: 035 Source Name: WCSP BOILER 8

Source Capacity/Throughput: 49.000 MMBTU/HR



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from the provisions specified in 25 Pa. Code § 127.207]

The operation of Source ID 035 shall not emit air contaminants at rates in excess of the following limitations;

- (1) 0.28 pound per million British thermal units (lb/MMBtu) of heat input for NOx (expressed as NO2)
- (2) 0.084 lb/MMBtu of heat input for CO
- (3) 0.0056 lb/MMBtu of heat input for VOC (inc. H2CO)
- (4) 120 lb/MMBtu of heat input for CO2

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from the provisions specified in 25 Pa. Code § 127.207] [Compliance with this streamlined permit condition will assure compliance with the provisions specified in 25 Pa. Code Section 123.11]

The total particulate matter (condensable and filterable) emissions from the operation of Source ID 035 shall not be in excess of the following limitations:

- (1) 0.008 lb/MMBtu for total PM10;
- (2) 0.008 lb/MMBtu for total PM2.5.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from the provisions specified in 25 Pa. Code § 127.207] [Compliance with this streamlined permit condition will assure compliance with the provisions specified in 25 Pa. Code Section 123.22 and 40 CFR 52.2020(c)]

The sulfur oxide (SOx, expressed as SO2) emissions from Source ID 035 shall not be in excess of 0.0006 lb/MMBtu.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from the provisions specified in 25 Pa. Code § 127.207]

Source ID 035 shall not emit air contaminants at rates in excess of the following limitations:

- (1) 0.8 ton in any 12 consecutive month period for total PM10 and total PM2.5;
- (2) 8.2 tons in any 12 consecutive month period for CO;
- (3) 27.4 tons in any 12 consecutive month period for NOx;
- (4) 0.6 ton in any 12 consecutive month period for VOC (inc. H2CO);
- (5) 0.1 ton in any 12 consecutive month period for SOx
- (6) 11,832 tons in any 12 consecutive month period for GHG (expressed as CO2e).





# **SECTION D.** Source Level Requirements

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91 through 129.95]

Source ID 035 shall not at any time emit nitrogen oxides (NOx, expressed as NO2) at a rate in excess of 0.55 pounds per million BTU of heat input.

## Fuel Restriction(s).

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall only fire pipeline-quality natural gas in Source ID 035.

# Throughput Restriction(s).

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is taken from the provisions specified in 25 Pa. Code § 127.207]

The firing of natural gas in Source ID 035 shall never exceed 196,000 MMBtu of heat input in any 12 consecutive month period.

#### II. TESTING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91 through 129.95]

The permittee shall perform nitrogen oxides testing on the exhaust of Source ID 035 on an annual basis. The tests are to be completed by no earlier than January 1 of each calendar year and no later than February 28.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee may utilize a portable analyzer, in conjunction with a Department-approved protocol, for the annual nitrogen oxides testing on the exhaust of Source ID 035, except that a minimum of one test utilizing EPA reference test methods shall be conducted on Source ID 035 in each 5-year calendar period.

# 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91 through 129.95 and 127.511]

- (a) At least 60 days before the performance of any EPA reference method testing on Source ID 035, the permittee shall submit two (2) 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 the exhaust of the boiler being tested that shows the location of the sampling ports to be used during the EPA reference method testing program.
- (b) Within 60 days following the performance of any testing on Source ID 035 as required by this permit, the permittee shall submit two (2) 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 the boiler's steam production including steam temperature and pressure as well as the fuel usage data recorded during performance testing program.

# 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91 through 129.95 and 127.511]

The permittee shall provide the Department with at least 15 days advance notice of the actual date(s) and time(s) when any



# **SECTION D.** Source Level Requirements

testing required herein 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 Sections 129.91 through 129.95]

All testing 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 maximum routine operating conditions. During all testing, the permittee shall monitor and record the steam production, temperature and pressure of the boiler as well as the fuel usage rates.

#### III. MONITORING REQUIREMENTS.

# # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The fuel delivery system associated with Source ID 035 shall be equipped with an alarm for continuously monitoring the maximum operating pressure of the fuel to the inlet to the boiler's burner.

## IV. RECORDKEEPING REQUIREMENTS.

## # 014 [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]

The permittee shall keep records of the following for Source ID 035:

- (1) The total number of hours operated per month
- (2) The total amount of natural gas consumed per month
- (3) The total amount of natural gas consumed in each 12 consecutive month period
- (4) Monthly and 12-month rolling emissions
- (5) Calculations used to verify the emissions recorded for each boiler
- (6) Stack test reports

#### # 015 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to the provisions of 40 CFR § 70.6, all information generated to comply with all of the monitoring and recordkeeping conditions herein shall be kept for a period of five (5) years and shall be made available to the Department upon request.

# # 016 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.95 and 127.511]

The permittee shall keep records in accordance with the recordkeeping requirements of 25 Pa. Code Section 129.95 which, at a minimum, shall include a record of each adjustment conducted under the requirements of 25 Pa. Code Section 129.93 for Source ID 035 in a permanently bound log book or other method approved by the Department. This log shall contain, at a minimum, the following information:

- (1) the date of the tuning procedure;
- (2) the name of the service company and technicians;
- (3) the final operating rate or load;
- (4) the final CO and NOx emission rates;
- (5) the final excess oxygen rate.





# 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]

The permittee shall obtain and maintain fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the natural gas supplier that certify that the fuel for operation of Source ID 035 meets the potential SO2 emissions as required herein.

#### V. REPORTING REQUIREMENTS.

# 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]

The permittee shall submit semiannual reports certifying that only natural gas meeting the maximum SO2 emission potential required herein was fired in Source ID 035 during the reporting period.

#### VI. WORK PRACTICE REQUIREMENTS.

# 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91 through 129.95]

The permittee shall perform annual tune-ups on Source ID 035 to minimize the unit's nitrogen oxide emissions. These tune-ups shall be performed within 12 months (+/- 1 month) of the unit's previous tune-up.

# 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91-129.95]

For Source ID 035, 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, the following adjustments as required in paragraphs (i) through (iii) of 25 Pa. Code Section 129.93(b)(2):

- (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.

# VII. ADDITIONAL REQUIREMENTS.

# 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 035 is a natural gas-fired Wickes boiler rated at 49.0 MMBtu/hr of maximum heat input which is located in the West Campus Steam Plant.

# 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

All RACT conditions derived from 25 Pa. Code Sections 129.91 through 129.95 pertaining to Source ID 035 remain in effect and are not superseded by RACT II (25 Pa. Code Sections 129.96 though 129.100) as per Section 129.97(i).

# \*\*\* Permit Shield in Effect. \*\*\*



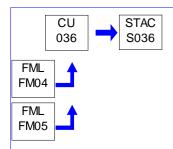


Source ID: 036 Source Name: ECSP BOILER 1

Source Capacity/Throughput: 130.000 MMBTU/HR

928.570 Gal/HR #2 Oil

127.450 MCF/HR Natural Gas



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.11]

#### **Combustion units**

No person may permit the emission of particulate matter from the exhaust of Source ID 036 into the outdoor atmosphere in excess of the following:

- (1) The rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.
- (2) The rate determined by the following formula:

 $A=3.6 \times E$  (to the minus 0.56 power)

Where A = Allowable emissions in pounds per million Btus of heat input, and

E = Heat input to the combustion unit in millions of Btus per hour (when E is equal to or greater than 50 but less than 600).

#### # 002 [25 Pa. Code §123.22]

### **Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from the exhaust of Source ID 036 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

#### # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The nitrogen oxides, expressed as NO2, emissions from the exhaust of Source ID 036 shall not exceed 60.9 tons in any 12 consecutive month period.

#### # 004 [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.





# 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.

The VOC emissions from the exhaust of Source ID 036 shall not exceed 0.96 tons in any 12 consecutive month period.

# Fuel Restriction(s).

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §123.22(a)(2)(ii)]

Source ID 036 shall be fired only on natural gas, or #2 fuel oil to which no reclaimed or waste oil or other waste materials have been added. Additionally, the sulfur content of #2 fuel oil used in Source ID 036 shall not exceed 0.05% by weight.

## **Throughput Restriction(s).**

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The combined fuel usage of Source IDs 036 and 037 shall not exceed 650 million cubic feet in any 12 consecutive month period while firing natural gas and 1,114,000 gallons in any 12 consecutive month period while firing No. 2 fuel oil.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[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 ID 036 shall 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.

# 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. 036's exhaust showing the location of the sampling ports to be used.

# 011 [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.





### # 012 [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.

# 013 [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.

#### III. MONITORING REQUIREMENTS.

## # 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor emissions of PM, SOx, and NOx from Source ID 036, by using fuel consumption data, the most recent stack testing results, and/or published emission factors from a reliable source, to perform emissions calculations to verify compliance with the emissions limitations.

# IV. RECORDKEEPING REQUIREMENTS.

## # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the amount and type of fuel consumed per month for Source IDs 036 and 037 to verify compliance with the fuel restrictions in any 12 consecutive month period.

# 016 [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.

#### # 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]

- (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.

## # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The permittee shall submit to the Department on a semiannual basis records of the supporting calculations used to verify compliance with the fuel restriction from Source ID 036 in any 12 consecutive month period.
- (b) All semiannual reports shall be submitted to the Department no later than March 1 (For January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).

# 019 [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.

# 020 [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]

- (a) The permittee shall submit to the Department on a semiannual basis records of the supporting calculations used to verify compliance with the NOx emission limitation from Source ID 036 in any 12 consecutive month period.
- (b) All semiannual reports shall be submitted to the Department no later than March 1 (For January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).

# VI. WORK PRACTICE REQUIREMENTS.

## # 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

# 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91-129.95]

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, the following adjustments as required in paragraphs (i) through (iii) of 25 Pa. Code Section 129.93(b)(2):

- (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.

#### VII. ADDITIONAL REQUIREMENTS.

# 023 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 40 CFR §63.11195(e), gas-fired boilers are exempted from the requirements of 40 CFR Part 63 Subpart JJJJJJ - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercia, and Institutional Boilers Area Sources.

Source ID 036 is not subject to any requirements under Subpart JJJJJJ provided that it burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

# 024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 036 is a 130 million BTU/hr E. Keeler natural gas/#2 fuel oil-fired boiler located in the East Campus Steam Plant.

# \*\*\* Permit Shield in Effect. \*\*\*

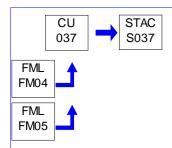


Source ID: 037 Source Name: ECSP BOILER 2

Source Capacity/Throughput: 130.000 MMBTU/HR

928.570 Gal/HR #2 Oil

127.450 MCF/HR Natural Gas



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.11]

#### **Combustion units**

No person may permit the emission of particulate matter from the exhaust of Source ID 037 into the outdoor atmosphere in excess of the following:

- (1) The rate of 0.4 pound per million Btu of heat input, when the heat input to the combustion unit in millions of Btus per hour is greater than 2.5 but less than 50.
- (2) The rate determined by the following formula:

 $A=3.6 \times E$  (to the minus 0.56 power)

Where A = Allowable emissions in pounds per million Btus of heat input, and

E = Heat input to the combustion unit in millions of Btus per hour (when E is equal to or greater than 50 but less than 600).

#### # 002 [25 Pa. Code §123.22]

### **Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from the exhaust of Source ID 037 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

# # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The nitrogen oxides, expressed as NO2, emissions from the exhaust of Source ID 037 shall not exceed 60.9 tons in any 12 consecutive month period.

#### # 004 [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.





# 005 [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.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The VOC emissions from the exhaust of Source ID 037 shall not exceed 0.96 tons in any 12 consecutive month period.

## Fuel Restriction(s).

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §123.22(a)(2)(ii)]

Source ID 037 shall be fired only on natural gas, or #2 fuel oil to which no reclaimed or waste oil or other waste materials have been added. Additionally, the sulfur content of #2 fuel oil used in Source ID 037 shall not exceed 0.05% by weight.

## **Throughput Restriction(s).**

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[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 ID 037 shall 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.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The combined fuel usage of Source IDs 036 and 037 shall not exceed 650 million cubic feet in any 12 consecutive month period while firing natural gas and 1,114,000 gallons in any 12 consecutive month period while firing No. 2 fuel oil.

#### II. TESTING REQUIREMENTS.

# 010 [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.

# 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.]

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.

# 012 [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.

## # 013 [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.

#### III. MONITORING REQUIREMENTS.

# # 014 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

The permittee shall monitor emissions of PM, SOx, and NOx from Source ID 037, by using fuel consumption data, the most recent stack testing results, and/or published emission factors from a reliable source, to perform emissions calculations to verify compliance with the emissions limitations.

#### IV. RECORDKEEPING REQUIREMENTS.

## # 015 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

The permittee shall keep records of the amount and type of fuel consumed per month for Source IDs 036 and 037 to verify compliance with the fuel restrictions in any 12 consecutive month period.

## # 016 [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]

- (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.

# # 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 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.

# # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The permittee shall submit to the Department on a semiannual basis records of the supporting calculations used to verify compliance with the the fuel restriction from Source ID 037 in any 12 consecutive month period.
- (b) All semiannual reports shall be submitted to the Department no later than March 1 (For January 1 through December 31 of the previous year) and September 1(for July 1 of the previous year through June 30 of the current year).

# 019 [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]

- (a) The permittee shall submit to the Department on a semiannual basis records of the supporting calculations used to verify compliance with the NOx emission limitation from Source ID 037 in any 12 consecutive month period.
- (b) All semiannual reports shall be submitted to the Department no later than March 1 (For January 1 through December 31 of the previous year) and September 1(for July 1 of the previous year through June 30 of the current year).

# 020 [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.

# # 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

# 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.91-129.95]

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, the following adjustments as required in paragraphs (i) through (iii) of 25 Pa. Code Section 129.93(b)(2):

- (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.



#### VII. ADDITIONAL REQUIREMENTS.

# 023 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 40 CFR §63.11195(e), gas-fired boilers are exempted from the requirements of 40 CFR Part 63 Subpart JJJJJJ - National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercia, and Institutional Boilers Area Sources.

Source ID 037 is not subject to any requirements under Subpart JJJJJJ provided that it burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

# 024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 037 is a 130 million BTU/hr E. Keeler natural gas/#2 fuel oil-fired boiler located in the East Campus Steam Plant.

# \*\*\* Permit Shield in Effect. \*\*\*

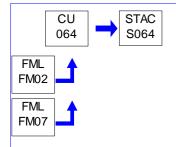
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#### SECTION D. **Source Level Requirements**

Source ID: 064 Source Name: NATURAL GAS-FIRED COMBUSTION UNITS < 10 MMBTU/HR

Source Capacity/Throughput:



#### RESTRICTIONS. I.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.11]

#### **Combustion units**

No person may permit the emission of particulate matter from the exhaust of any combustion unit included in Source ID 064 rated at greater than 2.5 MMBtu/hr of heat input into the outdoor atmosphere in excess of 0.40 pound per million Btu of heat input.

# 002 [25 Pa. Code §123.22]

#### **Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from the exhaust of Source ID 064 in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

## Fuel Restriction(s).

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Only natural gas or propane shall be fired in each combustion unit of Source ID 064.

#### TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### IV. RECORDKEEPING REQUIREMENTS.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), the permittee shall maintain records of the following for each combustion unit operating under Source ID 064:

- (a) Rated gross heat input;
- (b) Verification of maintenance and operation in accordance with manufacturer's specifications and good operating practices.



#### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

### VI. WORK PRACTICE REQUIREMENTS.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.97(c).]

Each combustion unit of Source ID 064 shall be maintained and operated in accordance with manufacturer's specifications and with good operating practices.

#### VII. ADDITIONAL REQUIREMENTS.

#### # 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 064 consists of 120 natural gas and/or propane-fired boilers, water heaters and furnaces each rated at less than 10 MMBtu/hr of heat input located in buildings as specified below:

[Building No., Boiler Type, Building Name, Manufacturer, Install Year, Capacity (Btu/hr)]

022-001, Water Tube Boiler, Coal Utilization, Cleaver Brooks, 1985, 1,700,000

029-00, CI Boiler, Schreyer House, Weil McLain, 2012, 399,000

029-00, CI Boiler, Schreyer House, Weil McLain, 2012, 399,000

034-00, Boiler, Rider House, Burnham, 2002, 646,000

036-00, Water Tube Boiler, Visitor Center, Weil McLain, 2000, 175,000

037-00, CI Boiler, Procurement Services, Weil McLain, 2003, 3,277,000

041-00, Water Tube Boiler, Bennett Family Center, A. O. Smith, 1997, 167,000

041-00, Water Tube Boiler, Bennett Family Center, A. O. Smith, 1997, 167,000

041-001, CI Boiler, Gary Schultz Child Center, Harsco, 2010, 1,050,000 041-001, CI Boiler, Gary Schultz Child Center, Harsco, 2010, 1,050,000

0043-00, Fire Tube Boiler, Data Center, AlC Tuchom, 2014, 275,000

0043-00, The Tube Doller, Data Center, Alc Tuchon, 2014, 273,000

0043-00, Fire Tube Boiler, Data Center, AlC Tuchom, 2014, 275,000

064-001, Water Tube Boiler, EMS Energy Institute, L.C., 2010, 400,000

091-00, Water Tube Boiler, Nittany Lion Inn, Raypak, 1991, 627,000

091-00, Water Tube Boiler, Nittany Lion Inn, Raypak, 1991, 627,000

120-00, Fire Tube Boiler, Gypsy Moth Research, York Shippley, 2002, 1,675,000

125-00, Water Tube Boiler, Merkle, A. O. Smith, 2009, 1,048,000

127-00, Cast Iron Boiler, AG Seed Barn, Burnham, 2006, 1,035,000

128-00, Fire Tube Boiler, Meats Lab, York Shipley, 1998, 714,000

128-00, Cast Iron Boiler, Meats Lab, Weil McLain, 1996, 1,250,000

132-00, Cast Iron Boiler, Swine Research Center, Weil McLain, 1970, 462,000

132-03, Steam Jenny, Swine Farrow, Hydro Tek, 2007, 360,000

132-03, Cast Iron Boiler, Swine Out Bldg, Burnham, 2010, 80,000

136-00, Fire Tube Boiler, Mushroom Research, York Shipley, 2002, 892,000

136-00, Cast Iron Boiler, Mushroom Research, Weil McLain, 2003, 1,230,000

143-00, Water Tube Boiler, Chem. Ecology, RBI Mestek, 2004, 350,000

143-04, VIT Boiler, Scent Mediated Eco. Lab, Lochinvar, 2009, 1,390,000

143-04, Hot Water Heater, Scent Mediated Eco. Lab, Takagi, 2009, 2,703,000

167-01, Cast Iron Boiler, Almquist Lab, Burnham, 2015, 936,000

168-01, Cast Iron Boiler, Dairy Barn, Burnham, 2016, 624,000

168-04, CI Boiler, Dairy Barn D (D8), Burnham, 2011, 433,000

168-05, Cast Iron Boiler, Dairy Barn E (D9), Burnham, 2002, 433,000

168-28, Hot Water Heater, Milking Center, A.O. Smith, 2013, 275,000

169-01, Water Tube Boiler #3, Wiley Lab, Bryan, 1990, 520,000

169-01, Cast Iron Boiler #4, Wiley Lab, Weil McLain, 2003, 634,000





169-01, Cast Iron Boiler #1, Wiley Lab, Burnham, 2011, 1,198,000 169-02, Fire Tube Boiler, A.D.L., Bryan, 1999, 3,600,000 169-10, Cast Iron Boiler, Mastitis, Wesco, 2002, 80,000 169-20, Cast Iron Boiler, Pell Lab, Lochinvar, 2012, 1,912,000 169-20, Cast Iron Boiler, Pell Lab, Lochinvar, 2012, 1,912,000 169-20, Water Tube Boiler 01A, Pell Lab, Cleaver Brooks, 2012, 3,500,000 169-20, Water Tube Boiler 01B, Pell Lab, Cleaver Brooks, 2012, 3,500,000 169-20, Water Tube Boiler 01C, Pell Lab, Cleaver Brooks, 2012, 3,500,000 178-01, Cast Iron Boiler, P1 Poultry Research, Burnham, 2012, 808,000 178-02, Cast Iron Boiler, P2 Poultry Meatbird, Burnham, 2002, 675,000 178-03, Cast Iron Boiler, P3 Poultry Pullet Growout, Burnham, 2013, 460,000 178-03, Cast Iron Boiler, P3 Poultry Pullet Growout, Burnham, 2013, 460,000 178-04, Cast Iron Boiler, P4 Cage Layer, Burnham, 2012, 550,000 178-04, Cast Iron Boiler, P4 Cage Layer, Burnham, 2012, 550,000 178-05, Cast Iron Boiler, P5 Poultry Breeder, Burnham, 2008, 805,000 178-06, Cast Iron Boiler, P6 Poultry Processing, Burnham, 2011, 550,000 189-05, CI Boiler, Insectory, Weil McLain, 2010, 510,000 189-05, CI Boiler, Insectory, Weil McLain, 2010, 510,000 193-005, Cast Iron Boiler, Fox Hollow, Weil McLain, 2006, 375,000 193-005, Cast Iron Boiler, Fox Hollow, Weil McLain, 2006, 375,000 193-005, Cast Alum. Boiler, Fox Hollow, PK, 2009, 535,000 215-50, CI Boiler, Nittany Comm. Center, UNICAL, 2007, 454,000 280-00, Fire Tube Boiler, Foods & Housing, Cleaver Brooks, 1989, 5,230,000 332-00, Fire Tube Boiler, Special Services, Burnham, 1996, 265,000 332-00, Fire Tube Boiler, Special Services, Burnham, 1996, 265,000 430-00, Cast Boiler, High Pressure Gas Lab, Weil McLain, 2004, 375,000 431-00, Cast Iron Boiler, Chem. Storage, Burnham, 2004, 1,010,000 664-00, Cast Iron Boiler, Benedict, Burnham, 2002, 301,000 665-00, Cast Iron Boiler, Beecher, A. O. Smith, 1997, 544,000 666-00, Cast Iron, Gardner, Eafco Inc., 1998, 298,000 761-00, Water Tube Boiler, Blue Band, Lochinvar, 2004, 590,000 761-00, Water Tube Boiler, Blue Band, Lochinvar, 2004, 590,000 822-18, Cast Iron, Field Maint. Bldg., US Boiler, 2013, 140,000 827-00, Gas Boiler, Medlar Field, Lochinvar, 2006, 500,000 827-00, Gas Boiler, Medlar Field, Sermeta, 2014, 500,000 828-00, Water Tube Boiler, N.L. Softball Park, Lochinvar, 2010, 1,300,000 828-00, Water Tube Boiler, N.L. Softball Park, Lochinvar, 2010, 1,900,000 846-00, Water Tube Boiler, Indoor Multi Sport Facility, A. O. Smith, 1998, 900,000 846-00, Water Tube Boiler, Indoor Multi Sport Facility, A. O. Smith, 1998, 900,000 904-026, Gas Boiler, OPP Landscape Greenhouse, Raypak, 2011, 500,000 943-00, CI Boiler, W.Campus Chiler Building, Weil McLain, 2012, 750,000 943-00, CI Boiler, W.Campus Chiler Building, Weil McLain, 2012, 750,000 943-00, CI Boiler, W.Campus Chiler Building, Weil McLain, 2012, 750,000 943-00, CI Boiler, W.Campus Chiler Building, Weil McLain, 2012, 750,000 959-01, Fire Tube Boiler, Horticulture Research, Weil McLain, 2003, 787,000 959-01, Fire Tube Boiler, Horticulture Research, Weil McLain, 2003, 787,000 959-58, Fire Tube Boiler, Plant Pathology, York Shipley, 2002, 2,160,000 960-42, Fire Tube Boiler, C.E. Camp, Burnham, 1998, 3,600,000 960-42, Hot Water Heater, M.I. Camp, A.O. Smith, 2006, 300,000 963-09, Fire Tube Boiler, Airport Hanger I, Hydrotherm, 2001, 150,000 963-09, Water Tube Boiler, Airport Hanger I, Lochinvar, 2010, 150,000 963-09, Water Tube Boiler, Airport Hanger I, Lochinvar, 2013, 150,000 963-09, Water Tube Boiler, Airport Hanger I, Lochinvar, 2013, 150,000 963-12, Cast Iron Boiler, Airport Mant. Hanger, Weil McLain, 1998, 510,000 963-12, Fire Tube Boiler, Airport Mant. Hanger, Sermeta, 2015, 510,000 963-16, Fire Tube Boiler, Airport Mant. Hanger, AlC Knight, 2017, 150,000





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963-19, Fire Tube Boiler, Airport Mant. Hanger H, AlC Knight, 2017, 150,000
963-31, Water Tube Boiler, Airport Control Tower, Larris, 2010, 150,000
965-01, Hot Water Heater, Penn Stater, Sellers, 2004, 375,000
965-01, Hot Water Heater, Penn Stater, Sellers, 2004, 375,000
965-01, Hot Water Heater, Penn Stater, Sellers, 2004, 375,000
965-01, Hot Water Heater, Penn Stater, Sellers, 2004, 375,000
965-01, Water Tube Boiler, Penn Stater, Ace Buehler, 1993, 4,750,000
965-01, Water Tube Boiler, Penn Stater, Ace Buehler, 1993, 4,750,000
965-01, Water Tube Boiler, Penn Stater Laundry, Parker, 2012, 4,830,000
965-01, Gas Steam Generator, Penn Staer, Unified Brands, 2014, 200,000
965-02, Steam Boiler #3, 230 Building, Ajax, 1993, 225,000
965-02, Steam Boiler #4, 230 Building, Burnham, 2007, 2,154,000
965-02, CI Boiler #1, 230 Building, Burnham, 2008, 4,551,000
965-02, CI Boiler, 230 Building, Burnham, 2011, 3,353,000
965-13, Water Tube Boiler, Outreach Inovation Buld., A. O. Smith, 2004, 2,100,000
965-13, Water Tube Boiler, Outreach Inovation Buld., A. O. Smith, 2004, 2,100,000
965-13. Water Tube Boiler, Outreach Inovation Buld., A. O. Smith, 2004, 2,100,000
994-00, Gas Water Boiler, WWTP, Crown, 1999, 80,000
994-00, Fire Tube Boiler, WWTP, Hurst, 2010, 2,000,000
995-029, Cast Iron Boiler, Test Track, Burnman, 2004, 1,085,000
996-15, Water Tube Boiler, ARL (at test track), Clayton, 1987, 6,700,000
999-019, CI Boiler, Technology Support, BFC, 2014, 4.720,000
999-019, CI Boiler, Technology Support, BFC, 2014, 4.720,000
999-502, Cast Iron Boiler, Smith #2, Weil McLain, 1986, 535,000
999-504, Cast Iron Boiler, Smith #4, Weil McLain, 1992, 950,000
999-516, Water Tube Boiler, 3058 MPI Research, P.K., 2008, 850,000
999-516, Water Tube Boiler, 3058 MPI Research, P.K., 2009, 850,000
999-516, Water Tube Boiler, 3058 MPI Research, P.K., 2012, 850,000
999-520, Cast Iron Boiler, College Heights, AMRCN RAD, 1958, 535,000
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#### # 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Each combustion unit operating under Source ID 064, having a heat input less than 20 MMBtu/hour, complies with the Presumptive RACT II provisions of 25 Pa. Code Section 129.97(c)(3).

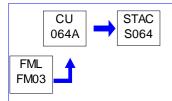
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: 064A Source Name: OIL-FIRED COMBUSTION UNITS < 10 MMBTU/HR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.11]

#### **Combustion units**

No person may permit the emission of particulate matter from the exhaust of any combustion unit included in Source ID 064A rated at greater than 2.5 MMBtu/hr of heat input into the outdoor atmosphere in excess of 0.40 pound per million Btu of heat input.

# 002 [25 Pa. Code §123.22]

#### **Combustion units**

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provision in 40 CFR 52.2020(c)]

No person may permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from the exhaust of Source ID 064A in excess of the rate of 4 pounds per million Btu of heat input over any 1-hour period.

## Fuel Restriction(s).

# # 003 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §123.22(a)(2)(ii)]

Each combustion unit of Source ID 064A shall be fired only on #2 fuel oil to which no reclaimed or waste oil or other waste materials have been added. Additionally, the sulfur content of #2 fuel oil used in Source ID 064A shall not exceed 0.05% by weight.

### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### IV. RECORDKEEPING REQUIREMENTS.

# # 004 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), the permittee shall maintain records of the following for each combustion unit operating under Source ID 064A:

- (a) Rated gross heat input;
- (b) Verification of maintenance and operation in accordance with manufacturer's specifications and good operating





practices.

#### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### VI. WORK PRACTICE REQUIREMENTS.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.97(c).]

Each combustion unit of Source ID 064A shall be maintained and operated in accordance with manufacturer's specifications and with good operating practices.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall conduct a tune-up of each boiler included in Source ID 064A every 5 years using the procedures specified in 40 CFR §63.11223. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

#### VII. ADDITIONAL REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 064A is subject to the requirements of 40 CFR Part 63 Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The permittee shall comply with all applicable requirements of 40 CFR §§ 63.11193 through 63.11237 for Source ID 064A.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 064A consists of two fuel oil-fired boilers each rated at less than 10 MMBtu/hr of heat input located in buildings as specified below:

- One (1) 534,000 btu/hr Burnham boiler located in building 008-00 (New Mechanical Room) installed in 1996.
- One (1) 535,000 btu/hr Burnham boiler located in building 046-00 (Boiler Room) installed in 2004.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Each combustion unit operating under Source ID 064A, having a heat input less than 20 MMBtu/hour, complies with the Presumptive RACT II provisions of 25 Pa. Code Section 129.97(c)(3).

# \*\*\* Permit Shield in Effect. \*\*\*





# **SECTION D.** Source Level Requirements

Source ID: 171 Source Name: DUCT BURNER (HEAT RECOVERY STEAM GENERATION UNIT)

Source Capacity/Throughput: 97.850 MMBTU/HR



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(g)(1)(i), the permittee shall not permit the emission into the outdoor atmosphere of nitrogen oxides (expressed as NO2) from Source ID 171 at a rate in excess of 0.10 pounds per million British thermal units (lb/MMBtu).

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the total emissions from Source ID 171 shall not at any time exceed any of the following limitations:

- i) 16.15 tons of nitrogen oxides, expressed as (NO2), in any 12 consecutive month period;
- ii) 0.59 ton of carbon monoxide in any 12 consecutive month period;
- iii) 0.09 ton of sulfur oxides, expressed as (SO2), in any 12 consecutive month period;
- iv) 1.47 tons of particulate matter, including particulate matter having an aerodynamic diameter equal to or less than 10 micrometers (PMPM10) in any 12 consecutive month period:
- v) 1.89 tons of volatile organic compounds in any 12 consecutive month period; and
- vi) 0.16 ton of formaldehyde in any 12 consecutive month period.

## # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of air contaminant pollutants from Source ID 171 at a rate in excess of the following limitations;

- i) 0.11 pound per million British thermal units (lb/MMBtu) for nitrogen oxides (expressed as NO2) emissions;
- ii) 0.004 lb/MMBtu for carbon monoxide emissions;
- iii) 0.01 lb/MMBtu for particulate matter including particulate matter with a nominal aerodynamic diameter less than 10 microns (PM/PM10);
- iv) 0.013 lb/MMBtu for volatile organic compounds; and
- v) 400 ppb (parts per billion), corrected to 15% oxygen, for formaldehyde.

### # 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4320]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

What emission limits must I meet for nitrogen oxides (NOX)?

The permittee shall not permit the emission into the outdoor atmosphere of nitrogen oxides from Source ID 171 in a manner that the concentration of NOx in the effluent gas exceeds the following;

- i) 25 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID 171 is operating and Source ID P171 uses natural gas as fuel for operation.
- ii) 74 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID 171 is operating and Source ID P171 uses No. 2 oil as fuel for operation.



# **SECTION D.** Source Level Requirements

# Fuel Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4365(a)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall only use natural gas containing maximum sulfur content equal to 20 grains per 100 standard cubic foot for fuel to operate Source ID 171.

# Throughput Restriction(s).

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this plan approval condition is derived from the permittee requesting the following elective restriction]

The amount of natural gas used in Source ID 171 shall not exceed 293.55 million standard cubic feet (MMscf) in any 12 consecutive month period.

#### II. TESTING REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4340(a). Compliance with the nitrogen oxides testing requirements specified under condition (b) below ensures compliance with 25 Pa. Code Section 129.100(a)(4).]

- a) In the calendar year 2023, stack testing shall be conducted on Source ID 171 to determine the NOx, CO, VOC, and HCHO emission rates while operating at maximum rated capacity within 90 days of receipt of an approved testing protocol from the Department's Source Testing Section.
- b) Subsequent stack tests shall be conducted on Source ID 171 to determine the nitrogen oxides (NOx) and carbon monoxide (CO) emission rates while operating at maximum rated capacity on an approximate annual basis, but in each case, no less than 10 months and no more than 14 months following the previous test. If the NOx emission result from the previous performance test is less than or equal to 75 percent of the applicable NOx emission limit specified in 40 CFR Part 60 Subpart KKKK, the permittee may reduce the frequency of subsequent NOx and CO performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit established in Subpart KKKK, the permittee shall resume annual performance tests.
- c) Stack tests shall be conducted on Source ID 171 to determine the volatile organic compounds and formaldehyde emission rates while operating at maximum rated capacity on an approximate triennial basis, but in each case, no less than 34 months and no more than 38 months following the previous test.
- d) The permittee may request a change in the required frequency of testing once enough data has been generated to determine the consistency of the results; however, the stack testing frequency may not, under any circumstances, become less than the frequency required by 40 CFR Part 60 Subpart KKKK.

# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4400]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

How do I conduct the initial and subsequent performance tests, regarding NOX?

The permittee shall comply with all applicable nitrogen oxides testing requirements specified in 40 CFR Section 60.4400.

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

How do I conduct the initial and subsequent performance tests for sulfur?

The permittee shall comply with all applicable testing requirements for sulfur specified in 40 CFR Section 60.4415.





### III. MONITORING REQUIREMENTS.

### # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the oxidation catalyst (ID C171) associated with Source ID 171 shall be equipped with instrumentation to continuously monitor the catalyst bed inlet and outlet temperatures as well as the pressure differential across the catalyst bed.

#### IV. RECORDKEEPING REQUIREMENTS.

## # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[With respect to NOx emissions, compliance with this condition ensures compliance with 25 Pa. Code §129.100(d).]

- a) The permittee shall keep accurate and comprehensive records of the following information:
  - i) A copy of stack test reports for testing performed on Source ID 171.
- ii) Records demonstrating compliance with the maximum natural gas sulfur content.
- b) The permittee shall keep accurate and comprehensive records of the following information on a monthly basis:
- i) The calculations of air contaminant emissions from Source ID 171 used to verify compliance with nitrogen oxides, carbon monoxide, sulfur oxides, particulate matter including particulate matter with an aerodynamic diameter less than 10 microns, volatile organic compounds, and formaldehyde emissions limitations in any 12 consecutive month period.
- ii) The amount of fuel used in the duct burner associated with Source ID 171.
- c) These records shall be kept for a minimum of five (5) years and shall be made available to the Department upon request.

#### V. REPORTING REQUIREMENTS.

# # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following information for Source ID 171 on an annual basis:

i) The monthly emissions of nitrogen oxides, carbon monoxide, sulfur oxides, particulate matter including particulate matter with an aerodynamic diameter less than 10 microns, volatile organic compounds, and formaldehyde emissions with the supporting calculations/documentation (includes total emissions tons per year based on a 12-month rolling total for each month in a the reporting period).

Annual reports shall be submitted to the Department by March 1 (for the January 1 through December 31 reporting period).

# # 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

# **Subpart A - General Provisions**

Address.

The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4300 through 60.4420 must be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

Associate Director

Office of Air Enforcement and Compliance Assistance 3AP20

Air Protection Division

**USEPA Region 3** 

1650 Arch Street

Philadelphia, PA 19103-2029

# # 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What reports must I submit?

The permittee must submit a written report of the results of each performance test required by 40 CFR § 60.4340(a) before the close of business on the 60th day following the completion of the performance test.





# **SECTION D.** Source Level Requirements

# 015 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4395]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

When must I submit my reports?

All reports required under 40 CFR § 60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

#### VI. WORK PRACTICE REQUIREMENTS.

# 016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4333]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What are my general requirements for complying with this subpart?

The permittee shall operate and maintain Source ID 171, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

#### VII. ADDITIONAL REQUIREMENTS.

# 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 171 consists of a 97.85 MMBtu/hr, heat recovery steam generation unit with supplemental natural gas-fired duct burner.

# 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 171 shall be equipped a 27160 SCFM, BASF oxidation catalyst (ID C171) or equivalent as determined by the Department.

# 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID 171 is subject to Subpart KKKK of the federal Standards of Performance for New Stationary Sources, 40 CFR Sections 60.4300 through 60.4420. Source ID 171 shall comply with all applicable requirements specified in 40 CFR Sections 60.4300 through 60.4420.

# \*\*\* Permit Shield in Effect. \*\*\*

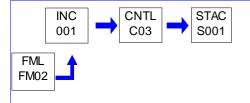




# **SECTION D.** Source Level Requirements

Source ID: 001 Source Name: HOSP/MED/INFECT WASTE INCINERATOR

Source Capacity/Throughput: 500.000 Lbs/HR WASTE



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition assures compliance with the requirement of 25 Pa. Code Section 123.41]

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Visible air contaminants from Source ID 001 shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 10% for a period, or periods aggregating more than 3 minutes in any one hour; or equal to or greater than 30% at any time.

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Sulfur dioxide emissions from Source ID. 001 shall not exceed 30 ppmv, hourly average, corrected to 7% O2 on a dry basis; or, shall be reduced by 75% by weight on an eight-hour basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR §§ 62.14411 through 62.14413]

{Compliance with this streamlined permit condition assures compliance with the requirements of 25 Pa. Code §§ 123.12 and 123.21}

The permittee shall comply with the following and all applicable emission limitations set forth in 40 CFR Section 62.14411 and Table 1 of 40 CFR Part 62 Subpart HHH:

- (a) Source ID 001 shall not discharge into the atmosphere from the stack any gases that exhibit greater than 6 percent opacity (6-minute block average).
- (b) The permittee may not cause to be discharged into the atmosphere from Source ID 001 any gases that contain stack emissions in excess of the limits specified in Table 1 of 40 CFR 62 Subpart HHH (pertaining to medium HMIWI):

POLLUTANT EMISSION LIMITS (7 percent oxygen, dry basis)

Particulate matter 0.020 grains per dry standard cubic foot

Carbon monoxide 5.5 parts per million by volume

Dioxins/furans 0.37 grain per billion dry standard cubic feet total dioxins/furans





# **SECTION D.** Source Level Requirements

Nitrogen oxides 190 parts per million by volume

Sulfur dioxide 4.2 parts per million by volume

Hydrogen chloride 7.7 parts per million by volume or 93 percent reduction

Lead 0.0079 grain per thousand dry standard cubic feet

Cadmium 0.0057 grain per thousand dry standard cubic feet

Mercury 0.011 grain per thousand dry standard cubic feet

(c) These emission limits apply at all times including all periods of startup, shutdown, and malfunction (SSM). No hospital or medical/infectious waste shall be charged to this HMIWI unit during SSM.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Hydrogen chloride emissions from Source ID 001 shall not exceed 30 ppmv, hourly average, corrected to 7% O2 on a dry basis; or, shall be reduced by 90% by weight on an hourly basis.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c)(1), the nitrogen oxides emissions from Source ID 001 shall be less than 5 tons per year.

# Throughput Restriction(s).

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The maximum charge rate to Source ID 001 shall not exceed 500 pounds of waste over any 1-hour period.
- (b) The permittee shall limit the charging of waste to Source ID 001 to 110% of the lowest 3-hour average charge rate measured during the most recent stack test demonstrating compliance with all applicable emissions limitations.

### II. TESTING REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Part 62 Subpart HHH]

[Compliance with this streamlined permit condition assures compliance with the requirements specified in 40 CFR Sections 62.14451]

- (a) The permittee shall determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in 40 CFR § 62.14452.
- (b) The permittee shall conduct stack testing every three years which in each case shall consist of testing for particulate matter (total suspended particulate and PM10), hydrogen chloride, carbon monoxide, sulfur dioxide, arsenic and compounds (expressed as arsenic), beryllium and compounds (expressed as beryllium), cadmium and compounds (expressed as chromium), hexavalent chromium and compounds (expressed as chromium), lead and compounds (expressed as lead), mercury and compounds (expressed as mercury), nickel and compounds (expressed as nickel), as

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## **SECTION D.** Source Level Requirements

well as PCDD and PCDF (expressed as 2,3,7,8 TCDD equivalents), while the incinerator is being operated at its maximum charge rate.

- (c) If any performance test indicates noncompliance with the respective emissions limit, a performance test for that pollutant shall be conducted annually until all annual performance tests over a 3-year period indicate compliance with the emissions limit.
- (d) The stack testing shall consist of 3 separate test runs for each contaminant and shall be performed using stack testing procedures which are acceptable to the Department of Environmental Protection and consistent with the requirements of 40 CFR § 62.14452. As a data base is established, and as the emissions consistently show compliance, this schedule may be altered by the Department.

## # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Department shall be given 14 days notice of the scheduled dates for the performance of all testing required by this permit on Source ID 001. The Department is under no obligation to accept the results of any testing performed without adequate advance notice having been provided.

## # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

At least 60 days prior to the scheduled performance of each occurrence of stack testing and opacity observations for Source ID 001 required by this permit, the permittee shall submit a test plan or protocol to the Department of Environmental Protection. This plan shall contain a description of the specific testing and analytical procedures to be used in performing the testing and a listing of all incinerator and air pollution control equipment operating parameters to be monitored during test performance. Dimensioned sketches of the test port location showing the upstream and downstream ductwork, stack, etc. configuration shall also be included if any changes have occurred since the previous testing.

## III. MONITORING REQUIREMENTS.

#### # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The permittee shall certify, maintain, and operate continuous emission monitoring systems for oxygen and carbon monoxide on Source ID 001. The oxygen and carbon monoxide monitors shall be co-located upstream of the air pollution control device. The permittee shall additionally comply with all applicable requirements specified for these monitoring systems in 25 Pa. Code Chapter 139 and the Department of Environmental Protection's "Continuous Source Monitoring Manual".

The permittee shall obtain monitoring data at all times except during period of monitoring equipment malfunction, calibration, or repair.

### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall comply with all applicable monitoring requirements specified in 40 CFR §§ 62.14453 and 62.14454.

#### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Department reserves the right to require the permittee to install a continuous SO2 monitor at any time.

## IV. RECORDKEEPING REQUIREMENTS.

# 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR § 62.14460]





- (a) The permittee shall keep records of the following for Source ID 001 at a minimum frequency of once per minute:
  - (i) Flue gas temperature at the outlet of the wet scrubber (ID C03).
  - (ii) Secondary chamber temperature.
- (iii) Pressure drop across the wet scrubber (ID C03) or horsepower or amperage to the wet scrubber (ID C03).
- (iv) Scrubber liquor flow rate at the inlet to the wet scrubber tank.
- (v) Scrubber liquor pH at the inlet to the wet scrubber tank.
- (b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

## # 014 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The primary chamber temperature and secondary chamber exit temperature shall be continuously measured and recorded. Sensors shall be located such that flames from the burners do not impinge on the sensors. The permittee shall additionally comply with all applicable requirements specified for these monitoring systems in 25 Pa. Code Chapter 139 and the Department of Environmental Protection's "Continuous Source Monitoring Manual".

## # 015 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

The permittee shall comply with all applicable recordkeeping requirements specified in 40 CFR §§ 62.14460 through 62.14462 and 62.14424.

## # 016 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code §§ 127.1 and 127.511 and 40 CFR § 62.14460]

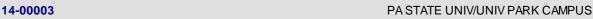
- (a) The permittee shall keep a daily HMIWI operating log. The log shall contain, but not be limited to, the following information:
- (1) the date and time of every charge of waste to the HMIWI
- (2) the total weight of every charge
- (3) the generator of waste (including the name, date delivered and amount accepted, if generated off-site)
- (4) the secondary combustion chamber temperature immediately prior to each charging of waste to the HMIWI
- (5) the secondary combustion chamber temperature during operation of the HMIWI
- (6) the total hours of operation of the HMIWI
- (7) a continuous record of the pounds of waste charged to Source ID 001 over any 1-hour period.
- (8) records of the supporting calculations used to verify compliance with all applicable emissions limitations.
- (b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

## # 017 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), the permittee shall maintain comprehensive, accurate records of the following with respect to Source ID 001:

- a. Verification that the nitrogen oxides are less than 5 tons per year;
- b. Verification of maintenance and operation in accordance with manufacturer's specifications and good operating





practices.

#### V. REPORTING REQUIREMENTS.

#### #018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall comply with all applicable reporting requirements specified in 40 CFR §§ 62.14463 through 62.14465.

#### # 019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The Department shall be notified within one hour of occurrence, following any failure of process equipment, any failure of any air pollution control equipment, any failure in monitoring equipment, or any process operational error which results in an increase in emissions above any allowable emission rate. In addition, the Department shall be notified in writing of the problem and measures taken to correct the problem as expeditiously as possible, but not later than five (5) days following such failure.

#### # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The HMIWI (Source ID 001) is subject to 40 CFR Part 62 Subpart HHH, Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators. The permittee shall comply with 40 CFR Section 62.10, which requires submissions of copies of all requests, reports, applications, submittals, and other communications to the EPA at the following address:

Associate Director Office of Air Enforcement and Compliance Assistance 3AP20 U.S. EPA, Region III 1650 Arch Street Philadelphia, PA 19103-2029

#### # 021 [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]

- (a) The permittee shall notify the Department of any malfunction of the secondary combustion chamber exit gas temperature monitoring and recording system which renders the system inoperable or is causing suspect temperature readings.
- (b) The permittee shall comply with the Site Level Condition pertaining to reporting malfunctions for the reporting the above requirements to the Department.

#### # 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Within 60 days of completion of all testing required herein for Source ID 001, two copies of a test report shall be submitted to the Department of Environmental Protection. The report shall contain the results of the stack testing and opacity observations, a description of the testing and analytical procedures actually used, all incinerator and air pollution control equipment operating data recorded during the testing, proof that the opacity observations were performed by a certified opacity observer, a copy of all raw test data, and a copy of all calculations generated during data analysis.

## 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 Sections 127.1 and 127.12]

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#### SECTION D. **Source Level Requirements**

The secondary chamber of the incinerator (Source ID 001) shall be maintained at a temperature of at least 1800 degrees Fahrenheit whenever the incinerator is in use. In addition, the secondary burners of the incinerator shall be capable of achieving a minimum secondary chamber temperature of at least 2000 degrees Fahrenheit, without the assistance of the heat content of the waste.

#### # 024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID 001 shall be equipped with an automatic loader, and equipped with interlocks to prevent charging until the secondary chamber exit temperature is established and holding at 1800 degrees Fahrenheit, and the combustion cycle is complete.

# 025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall maintain equipment that will limit the charging of waste to Source ID 001 so as not to exceed 500 pounds over any 1-hour period.

# 026 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR § 62.14455]

The permittee shall comply with the operational parameters established during the most recent performance test. Operation outside of these parameters may constitute a violation as specified in 40 CFR § 62.14455.

#### # 027 [25 Pa. Code §127.441]

Operating permit terms and conditions.

In the event of scrubber (ID C03) malfunction, the permittee shall immediately cease the waste feed to the incinerator (Source ID 001) and shall continue to maintain the temperature of secondary chamber at 1800 degree Fahrenheit until the combustion in the primary chamber ceased.

#### # 028 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR §§ 62.14440 through 62.14443]

- (a) The permittee shall conduct an inspection of Source ID 001 as outlined in § 62.14442(a) on an annual basis (no more than 12 months following the previous annual HMIWI equipment inspection).
- (b) The permittee shall conduct air pollution control device inspections as outlined in § 62.14442(b) on an annual basis (no more than 12 months following the previous annual air pollution control device inspection).

## [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR §§ 62.14420 through 62.14425]

- (a) No owner or operator shall allow the facility to operate at any time unless a fully trained and qualified HMIWI operator is accessible, either at the facility or available within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.
- (b) The HMIWI operator shall obtain training and qualification through a State-approved program; OR must complete a training course that includes the requirements in 40 CFR § 62.14422 and satisfy the qualification requirements in 40 CFR § 62.14423.
- (c) The permittee shall establish a program for reviewing the information listed in 40 CFR § 62.14424 annually with each HMIWI operator in accordance with the requirements of 40 CFR § 62.14425.





# 030 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c), Source ID 001 shall be maintained and operated in accordance with the manufacturer's specifications and with good operating practices.

#### VII. ADDITIONAL REQUIREMENTS.

## # 031 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) Source ID 001 is a hydraulically loaded, dual chamber, Crawford model C5000P hospital/medical/infectious waste incinerator (HMIWI) rated at 500 pounds waste input per hour. Source ID 001 is to be used to incinerate pathological, clinical and animal cage waste. The permittee may also use Source ID 001 to incinerate pharmaceuticals and marijuana confiscated by state and local law enforcement agencies.
- (b) The air contaminant emissions from Source ID 001 shall be controlled by an Emcotek Corporation, Model 150H-2200 "Rotary Atomizing" wet scrubber system (ID C03) with assoicated Baltimore Aircoil cooling town model 15296 and a Tranter PHE, Inc. plate & frame heat exchangers.

# 032 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 40 CFR §§ 62.13 and 62.14400 through 62.14403]

Source ID 001 is subject to 40 CFR Part 62, Subpart HHH. The permittee shall comply with all applicable requirements specified in 40 CFR §§ 62.14400 through 62.14495.

\*\*\* Permit Shield in Effect. \*\*\*



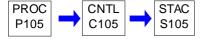
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## **SECTION D.** Source Level Requirements

Source ID: P105 Source Name: WASTEWATER TREATMENT PLANT

Source Capacity/Throughput: 0.010 BCF/HR



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from the exhaust of ID C105 in a manner that the concentration in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission from the exhaust of ID C105 into the outdoor atmosphere in a manner that the concentration of sulfur oxides (SOx), expressed as SO2, in the effluent gas is in excess of 500 parts per million, by volume, dry basis.

### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

## III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### IV. RECORDKEEPING REQUIREMENTS.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), with respect to the operation of the flare (ID C105), the permittee shall maintain comprehensive, accurate records verifying maintenance and operation in accordance with manufacturer's specifications and good operating practices.

#### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

## VI. WORK PRACTICE REQUIREMENTS.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.97(c).]

Control Device ID C105 shall be maintained and operated in accordance with manufacturer's specifications and in accordance with good operating practices.





### VII. ADDITIONAL REQUIREMENTS.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) Source ID P105 is a waste water treatment plant.
- (b) The air contaminant emissions from Source ID P105 shall be controlled by a flare (ID C105) having a maximum capacity of 13.35 MMBtu per hour used in the ignition of combustible gases exiting the digester serving Source ID P105.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The flare (ID C105), being used primarily for air pollution control, complies with the Presumptive RACT II provisions of 25 Pa. Code Section 129.97(c)(6).

\*\*\* Permit Shield in Effect. \*\*\*



14-00003



## **SECTION D.** Source Level Requirements

Source ID: P106 Source Name: SUBPART ZZZZ EMERGENCY GENERATORS

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes** 

No person may permit the emission from each emergency generator of Source ID P106 into the outdoor atmosphere of particulate matter in excess of 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

**General** 

No person may permit the emission from each emergency generator of Source ID P106 into the outdoor atmosphere in a manner that the concentration of sulfur oxides (SOx), expressed as SO2, in the effluent gas in excess of 500 parts per million, by volume, dry basis.

## Fuel Restriction(s).

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Each emergency generator of Source ID P106 shall only be fired on pipeline-quality natural gas, propane, or diesel fuel to which no reclaimed or waste oil or other waste materials have been added. Additionally, the sulfur content of diesel fuel used in Source ID P106 shall not exceed 0.05% by weight.

## Operation Hours Restriction(s).

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition also assures compliance with 25 Pa. Code § 129.97(c)(8)]

Each emergency generator operating under Source ID P106 shall not operate more than 100 hours per 12-month rolling period.

# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirement

The hours of operation of each generator engine of Source ID P106 shall comply with the requirements specified in 40 CFR 63.6640(f).





#### II. **TESTING REQUIREMENTS.**

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### RECORDKEEPING REQUIREMENTS.

# 006 [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.]

The permittee shall keep records of the following for each emergecy generator under Source ID P106:

- (a) number of hours of operation per month.
- (b) verification of maintenance and operation in accordance with manufacturer's specifications and good operating practices.

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

# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6655]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal **Combustion Engines** 

What records must I keep?

The permittee shall keep records pertaining to Source ID P106 as specified in 40 CFR 63.6655 and 40 CFR 63.6660.

### V. REPORTING REQUIREMENTS.

# 008 [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]

The permittee shall report the hours of operation of each generator of Source ID P106 on an annual basis. The annual reports shall be submitted to the Department by no later than March 1 (for January 1 through December 31 of the previous year).

#### # 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.13]

**Subpart A--General Provisions** 

Addresses of State air pollution control agencies and EPA Regional Offices.

The submission of all requests, reports, applications, submittals and other communications required by the National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63) shall be submitted to both the U.S. Environmental Protection Agency and the Department. The copies may be sent to:

Associate Director

Office of Air Enforcement and Compliance Assistance 3AP20

U.S. EPA, Region III

1650 Arch Street

Philadelphia, PA 19103-2029

and

The Pennsylvania Department of Environmental Protection





Air Quality Program Manager 208 W. Third Street, Suite 101 Williamsport, PA 17701-6448

## # 010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What reports must I submit and when?

The permittee shall submit reports pertaining to Source ID P106 as specified in 40 CFR 63.6650.

#### VI. WORK PRACTICE REQUIREMENTS.

## # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c), each emergency generator under Source ID P106 shall be maintained and operated in accordance with the manufacturer's specifications and with good operating practices.

## # 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

The permittee shall comply with the following maintenance requirements for each generator engine of Source ID P106:

- a) Change oil and filter every 500 hours of operation or annually, whichever comes first, unless the oil analyses detailed in 40 CFR 63.6625(i)-(j) indicate the oil does not need to be changed.
- b) Inspect the air cleaner/spark plugs (as appropriate) every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
- c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

## # 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What are my monitoring, installation, operation, and maintenance requirements?

The permittee shall comply with the following monitoring, installation, operation, and maintenance requirements:

- (a) The permittee must operate and maintain each generator engine of Source ID P106 according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions.
- (b) Each generator engine of Source ID P106 must be equipped with a non-resettable hour meter.
- (c) The permittee shall minimize the time spent at idle during startup for each generator engine of Source ID P106 and minimize each engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### VII. ADDITIONAL REQUIREMENTS.

## # 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P106 consists of 44 emergency generator engines located at the buildings and having the rated outputs and fuel types as specified:



[Asset Number, Location Description, Fuel Type, Size (kW)] EMG001, Main Dairy-Barn D (D-8) Exterior East, natural gas, 33 EMG003, Research D-01 FL-Mech Rm, natural gas, 80 EMG009, Research East-Roof-Mech Rm, natural gas, 12 EMG011, Land & Wtr Res-GDFL-Mech Rm, natural gas, 16 EGM013, Forest Res Lab, Exterior West, natural gas, 16 EMG014, Ag Admin Bldg-Bsmt-Elec Rm, natural gas, 24 EMG015, Ag Sci & Ind-Pent, natural gas, 92 EMG016, Chemical Ecology Lab-GDFL-Elec Rm, propane, 4 EMG017, Beef&Sheep-Beef Barn III-GDFL-Elec Rm, propane, 2.8 EMG020, North (Breazeale Reactor), diesel, 16 EMG021, Penn State Downtown Theatre Center-Roof, natural gas, 16 EMG022, Housing & Food Svc-GDFL-Dining Fac Svc, natural gas, 24 EMG027, Kern Grad Bldg-Bsmt, propane, 24 EMG034, Noll Lab-GDFL-Mech Rm, natural gas, 40 EMG035, Holuba Hall-01 FL-Mech Rm, natural gas, 16 EMG036, Hostetter Bus Svcs-01 FL-Mech-Rm, natural gas, 12.5 EMG039, Outreach Innovation Bldg-01 FL-Elec-Rm, diesel, 422 EMG040, WWTP-Lab/Ofc, propane, 42 EMG041, Hazmat Building, Exterior North, natural gas, 15 EMG044, Ag Res-FM101 Fld Lb/, Exterior West, propane, 5.6 EMG045, James Building, natural gas, 92 EMG048, Eisenhower Prkg Deck, propane, 22 EMG049, Poultry Grp-P6-Processing, diesel, 212 EMG050, West Campus Chiller-01 FL-Elec Rm, propane, 30 EMG051, USB II, Exterior West, natural gas, 100 EMG053, Penn Stater Conf Center Hotel, diesel, 250 EMG054, Main Dairy-Milking Ctr (D-4), natural gas, 80 EMG056, Telecommunications Bldg-Bsmt-Elec Rm, diesel, 250 EMG061, North Amer Refract-01 FL-Mech Rm, natural gas, 12 EMG064, Chemistry Bldg-Bsmt-Elec Rm, diesel, 500 EMG065, Huck Life Sciences Bldg-Bsmt-Mech Rm, diesel, 750 EMG066, Well 33-FM5, diesel, 160 EMG067, Medlar Field, Exterior South, diesel, 192 EMG074, Chlor Hse-Fm 5, propane, 12.5 EMG085, ARL Bldg, natural gas, 30 EMG092, Central Biological Lab, diesel, 750 EMG181, Shields Bldg, Exterior West, diesel, 200 EMG182, Blue Band Building-01 FL-Elec Rm, natural gas, 15 EMG183, USB I, Exterior North, natural gas, 16 EMG184, East Campus Heating Plant, propane, 25 EMG251, WWTP-Lab/Ofc, diesel, 505 EMG278, Well 34-Fm 5, diesel, 160 EMG477, WWTP-Lab/Ofc, diesel, 230 EMG832, West Campus Steam Plant, diesel, 150

# # 015 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

Source ID P106 is subject to 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Source ID P106 shall comply with all applicable requirements of Subpart ZZZZ.

## \*\*\* Permit Shield in Effect. \*\*\*

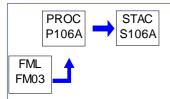
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## **SECTION D.** Source Level Requirements

Source ID: P106A Source Name: BEAVER STADIUM EMERGENCY GENERATOR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from the exhaust of Source ID P106A in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from the exhaust of Source ID P106A in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

## Fuel Restriction(s).

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P106A shall only be fired on diesel fuel or lighter fuel oil to which no reclaimed or waste oil or other waste materials have been added. Additionally, the sulfur content of diesel fuel fired in Source ID P106A shall not exceed 0.05% by weight.

## **Operation Hours Restriction(s).**

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c)(8).]

Source ID P106A shall not be operated more than 100 hours in any 12 consecutive month period.

# 005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6640]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirement

The hours of operation of the generator engine associated with Source ID P106A shall comply with the requirements specified in 40 CFR 63.6640(f).

## II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





#### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

### IV. RECORDKEEPING REQUIREMENTS.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), the permittee shall maintain records on Source ID P106A of the following:

- (a) the hours of operation each month;
- (b) verification of maintenance and operation in accordance with the manufacturer's specifications and good operating practices.

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

# 007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6665]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What parts of the General Provisions apply to me?

The permittee shall keep records pertaining to Source ID P106A as specified in 40 CFR 63.6655 and 40 CFR 63.6660.

#### V. REPORTING REQUIREMENTS.

## # 008 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.13]

**Subpart A--General Provisions** 

Addresses of State air pollution control agencies and EPA Regional Offices.

The submission of all requests, reports, applications, submittals and other communications required by the National Emission Standards for Hazardous Air Pollutants (40 CFR Part 63) shall be submitted to both the U. S. Environmental Protection Agency and the Department. The copies may be sent to:

Associate Director

Office of Air Enforcement and Compliance Assistance 3AP20

U.S. EPA, Region III

1650 Arch Street

Philadelphia, PA 19103-2029

and

The Pennsylvania Department of Environmental Protection

Air Quality Program Manager

208 W. Third Street, Suite 101

Williamsport, PA 17701-6448

## # 009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6650]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What reports must I submit and when?

The permittee shall submit reports pertaining to Source ID P106A as specified in 40 CFR 63.6650.

#### VI. WORK PRACTICE REQUIREMENTS.

## # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c), Source ID P106A shall be maintained and operated in accordance with the manufacturer's specifications and with good operating practices.



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## # 011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6603]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

The permittee shall comply with the following maintenance requirements for the generator engine associated with Source ID P106A:

- a) Change oil and filter every 500 hours of operation or annually, whichever comes first, unless the oil analysis detailed in 40 CFR 63.6625(i) indicates the oil does not need to be changed.
- b) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
- c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

## # 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6625]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What are my monitoring, installation, operation, and maintenance requirements?

The permittee shall comply with the following monitoring, installation, operation, and maintenance requirements:

- (a) The permittee must operate and maintain the generator engine associated with Source ID P106A according to the manufacturer's emission-related written instructions or develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
- (b) The generator engine associated with Source ID P106A must be equipped with a non-resettable hour meter.
- (c) The permittee shall minimize the time spent at idle during startup for the generator engine associated with Source ID P106A and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

#### VII. ADDITIONAL REQUIREMENTS.

### # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P106A consists of a 2,155 horsepower Caterpillar SR4B diesel fired emergency generator located in Beaver Stadium.

## # 014 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6585]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Am I subject to this subpart?

Source ID P106A is subject to 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Source ID P106A shall comply with all applicable requirements of Subpart ZZZZ.

## \*\*\* Permit Shield in Effect. \*\*\*

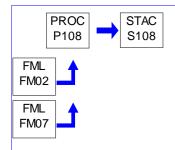
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## **SECTION D.** Source Level Requirements

Source ID: P108 Source Name: NEW SPARK IGNITION EMERGENCY GENERATORS

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

## # 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission from each emergency generator of Source ID P108 into the outdoor atmosphere of particulate matter in excess of 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

### **General**

No person may permit the emission from each emergency generator of Source ID P108 into the outdoor atmosphere in a manner that the concentration of sulfur oxides (SOx), expressed as SO2, in the effluent gas in excess of 500 parts per million, by volume, dry basis.

# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4233]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

- (a) Emergency generators included in Source ID P108 rated at less than 25 horsepower shall be certified to the emission standards and other requirements for new nonroad Spark Ignition Engines codified in 40 CFR Part 90.
- (b) Emergency generators included in Source ID P108 rated between 25 and 130 horsepower shall comply with the following emissions limitations:
  - (i) nitrogen oxides (NOx): 10 g/hp-hr (ii) carbon monoxide (CO): 387 g/hp-hr
- (c) Emergency generators included in Source ID P108 rated at greater than 130 horsepower shall comply with the following emissions limitations:
  - (i) nitrogen oxides (NOx): 2.0 g/hp-hr
  - (ii) carbon monoxide (CO): 4.0 g/hp-hr
  - (iii) volatile organic compounds (VOCs): 1.0 g/hp-hr [formaldehyde excluded]

### Fuel Restriction(s).

# # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4243(e)]

The generators included in Source ID P108 shall only be fired on natural gas or propane, as specified by the manufacturer as appropriate.

Any natural gas-fired generator of Source ID P108 may operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but records of such use must be kept.





## Operation Hours Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition also assures compliance with 25 Pa. Code § 129.97(c)(8)]

Each emergency generator operating under Source ID P108 shall not operate more than 100 hours per 12-month rolling period.

# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

The hours of operation of each emergency generator of Source ID P108 shall comply with the requirements of 40 CFR § 60.4243(d).

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### IV. RECORDKEEPING REQUIREMENTS.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4245]
Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall create and maintain the following records for the generator engines of Source ID P108:

- (a) All notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ.
- (b) Maintenance conducted on the engines.
- (c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner, documentation that the engine meets the emission standards.
- (e) Records of the hours of operation of each engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

#### V. REPORTING REQUIREMENTS.

# 008 [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]

The permittee shall report the hours of operation of each generator of Source ID P108 on an annual basis. The annual





reports shall be submitted to the Department by no later than March 1 (for January 1 through December 31 of the previous year).

## # 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

#### **Subpart A - General Provisions**

#### Address.

The submission of all requests, reports, applications, submittals and other communications required by the New Source Performance Standards (40 CFR Part 60) shall be submitted to both the U. S. Environmental Protection Agency and the Department. The copies may be sent to:

Associate Director
Office of Air Enforcement and Compliance Assistance 3AP20
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

and

The Pennsylvania Department of Environmental Protection Air Quality Program Manager 208 W. Third Street, Suite 101 Williamsport, PA 17701-6448

### VI. WORK PRACTICE REQUIREMENTS.

# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4243]

Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c).]

The permittee shall keep a maintenance plan and records of conducted maintenance for the generator engines of Source ID P108 and must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as applicable.

#### VII. ADDITIONAL REQUIREMENTS.

### # 011 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Source ID P108 is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

## # 012 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Source ID P108 consists of 7 spark ignition emergency generator engines subject to New Source Performance Standards located at the buildings and having the rated outputs and fuel types as specified:

[Asset Number, Location Description, Fuel Type, Size (kW)]

EMG077, Chlor Hse 2-Army Reserve Ctr, propane, 42

EMG078, Chlor Hse 1-FM 13, propane, 12.5

EMG080, EMS Energy Institute, Exterior North, propane, 8

EMG081, FM9-Insectary-East Side, natural gas, 100

EMG082, Snider Agricultural Arena, Exterior North, natural gas, 125

EMG090, Supplemental Mail Room, natural gas, 8

Unknown, Penn State Hotel & Conf Ctr, natural gas, 57





# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4230] Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines Am I subject to this subpart?

Source ID P108 is subject to 40 CFR Part 60 Subpart JJJJ - Standards of Performance for Stationary Spark Internal Combustion Engines. Source ID P108 shall comply with all applicable requirements of Subpart JJJJ.

\*\*\* Permit Shield in Effect. \*\*\*

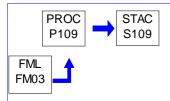
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## **SECTION D.** Source Level Requirements

Source ID: P109 Source Name: NEW COMPRESSION IGNITION EMERGENCY GENERATORS

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

## # 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission from each emergency generator of Source ID P109 into the outdoor atmosphere of particulate matter in excess of 0.04 grains per dry standard cubic foot.

## # 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission from each emergency generator of Source ID P109 into the outdoor atmosphere in a manner that the concentration of sulfur oxides (SOx), expressed as SO2, in the effluent gas in excess of 500 parts per million, by volume, dry basis.

# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal co

Emissions of air contaminants from the emergency generator engines included in Source ID P109 shall not exceed the following rates:

(a) For engines rated between 19 and 37 kilowatts:

(i) Nonmethane Hydrocarbons + Nitrogen Oxides: 7.5 g/kW-hr

(ii) Carbon Monoxide: 5.5 g/kW-hr(iii) Particulate Matter: 0.80 g/kW-hr

(b) For engines rated between 37 and 75 kilowatts:

(i) Nonmethane Hydrocarbons + Nitrogen Oxides: 4.7 g/kW-hr

(ii) Carbon Monoxide: 5.0 g/kW-hr (iii) Particulate Matter: 0.40 g/kW-hr

(c) For engines rated between 75 and 130 kilowatts:

(i) Nonmethane Hydrocarbons + Nitrogen Oxides: 4.0 g/kW-hr

(ii) Carbon Monoxide: 5.0 g/kW-hr (iii) Particulate Matter: 0.30 g/kW-hr

(d) For engines rated between 225 and 560 kilowatts:

(i) Nonmethane Hydrocarbons + Nitrogen Oxides: 4.0 g/kW-hr

(ii) Carbon Monoxide: 3.5 g/kW-hr(iii) Particulate Matter: 0.20 g/kW-hr

(e) For engines rated at greater than 560 kilowatts:

(i) Nonmethane Hydrocarbons + Nitrogen Oxides: 6.4 g/kW-hr

(ii) Carbon Monoxide: 3.5 g/kW-hr (iii) Particulate Matter: 0.20 g/kW-hr

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#### SECTION D. **Source Level Requirements**

# 004 I40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.42111 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

Each emergency generator of Source ID P109 shall be certified to the emission standards of 40 CFR § 60.4205(b), which are detailed in Condition #003 above.

## Fuel Restriction(s).

# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to Source ID P109 may only be fired on diesel fuel that meets the following requirements:

- (a) Sulfur content of 15 ppm maximum.
- (b) Cetane index or aromatic content, as follows:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

## **Operation Hours Restriction(s).**

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this streamlined permit condition also assures compliance with 25 Pa. Code § 129.97(c)(8)]

Each emergency generator operating under Source ID P109 shall not operate more than 100 hours per 12-month rolling period.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The hours of operation of each emergency generator of Source ID P109 shall comply with the requirements of 40 CFR § 60.4211(f).

#### TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

## III. MONITORING REQUIREMENTS.

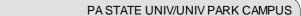
# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine? A non-resettable hour meter shall be installed on each emergency generator of Source ID P109.

#### IV. RECORDKEEPING REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.100(d), the permittee shall keep records for each generator engine under Source ID P109 to verify maintenance and operation in accordance with manufacturer's specifications and good operating practices.





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# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall keep records of the operation of each emergency generator of Source ID P109 in emergency and nonemergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

## V. REPORTING REQUIREMENTS.

## # 011 [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]

The permittee shall report the hours of operation of each generator of Source ID P109 on an annual basis. The annual reports shall be submitted to the Department by no later than March 1 (for January 1 through December 31 of the previous year).

## # 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

## **Subpart A - General Provisions**

Address.

The submission of all requests, reports, applications, submittals and other communications required by the New Source Performance Standards (40 CFR Part 60) shall be submitted to both the U. S. Environmental Protection Agency and the Department. The copies may be sent to:

Associate Director
Office of Air Enforcement and Compliance Assistance 3AP20
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

and

The Pennsylvania Department of Environmental Protection Air Quality Program Manager 208 W. Third Street, Suite 101 Williamsport, PA 17701-6448

#### VI. WORK PRACTICE REQUIREMENTS.

## # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c), all emergency generator engines operating under Source ID P109 shall be maintained and operated in accordance with the manufacturer's specifications and with good operating practices.

# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

Each emergency genertor source ID P109 shall be installed and configured according to the manufacturer's emission-related specifications.





### VII. ADDITIONAL REQUIREMENTS.

## # 015 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Source ID P109 consists of 16 compression ignition emergency generator engines subject to New Source Performance Standards located at the buildings and having the rated outputs as specified:

[Asset Number, Location Description, Fuel Type, Size (kW)]

EMG079, The 329 Building, Diesel, 250

EMG083, Physical Plant Bulding, Diesel, 750

EMG084, Eva J Pell Lab for Adv Bio Res-Exterior North, Diesel, 1000

EMG086, Main Dairy - Admin A, Diesel, 60

EMG087, Vet Res Ctr - Animal Diagnostic Lab, Diesel, 350

EMG088, James M Elliott Building, Diesel, 250

EMG089, Hosler Building, Diesel, 51

EMG091, Technology Support Building (Ratheon), Diesel, 250

EMG093, Fox Hollow Building, Diesel, 83

EMG103, Ford Bldg-Bsmt-Mech Rm, Diesel, 100

EMG104, Carpenter Bldg-Bsmt-Mech Rm. Diesel, 27

EMG105, Wiley Lab, Diesel, 120

EMG151, FM13-Water Treatment Fac #1, Diesel, 500

Unknown, Airport Vault, Diesel, 500

Unknown, Air Traffic Control Tower, Diesel, 250

Unknown, Data Center, Diesel, 25

### # 016 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

Source ID P109 is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

## # 017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4200]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines Am I subject to this subpart?

Source ID P109 is subject to 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Source ID P109 shall comply with all applicable requirements of Subpart IIII.

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## \*\*\* Permit Shield in Effect. \*\*\*

DEP Auth ID: 1419671 DEP PF ID: 256457





Source ID: P110 Source Name: MOBILE EQUIPMENT PAINT SPRAY BOOTH

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.13]

## **Processes**

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No person may permit the emission into the outdoor atmosphere of particulate matter from the exhaust of ID C110 associated with Source ID P110 in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grain per dry standard cubic foot.

## # 002 [25 Pa. Code §127.441]

## Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 127.512]

The VOC emissions from Source ID P110 shall not exceed 0.84 tons in any 12 consecutive month period.

### # 003 [25 Pa. Code §129.75]

## **Mobile Equipment Repair and Refinishing**

(a) Pursuant to 25 Pa. Code Section 129.75(c), a person may not apply to mobile equipment or mobile equipment components any automotive pretreatment, automotive primer-surfacer, automotive primer-sealer, automotive topcoat and automotive specialty coatings including any VOC-containing materials added to the original coating supplied by the manufacturer, that contain VOCs in excess of the following limits:

Coating Type	Pounds per gallon of coating (minus water and non-VOC solvents)
Automotive pretreatment primer	6.5
Automotive primer-surfacer	4.8
Automotive primer-sealer	4.6
Automotive topcoat	
single stage-topcoat	5.0
2 stage basecoat/clearcoat	5.0
3 or 4-stage basecoat/clearcoat	5.2
Automotive multicolored topcoat	5.7
Automotive specialty	7.0

(b) The VOC content of the coatings subject to 25 Pa. Code Section 129.75 shall be calculated and documented in accordance with 25 Pa. Code Section 129.75(d).

## II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).



## V. RECORDKEEPING REQUIREMENTS.

### # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.75(d) and 127.511]

- (1) The permittee shall keep the following records:
- (a) The identity and coating type (i.e., automotive pretreatment primer, automotive topcoat, etc.) of each paint, solvent and other VOC containing material used in Source ID P110.
- (b) The volume of each material used each month in Source ID P110.
- (c) The density of each material used in Source ID P110.
- (d) The volume percent of water contained in each material used in Source ID P110.
- (e) The volume percent of non-VOC solvents contained in each material used in Source ID 110.
- (f) The weight percent of VOCs contained in each material used in Source ID 110.
- (g) The VOC content (lbs VOC per gallon of coating-minus water and non-VOC solvents) of each material used in Source ID P110.
- (h) The material safety data sheet (MSDS) or certified product data sheet (CPDS) of each material used in Source ID P110.
- (2) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

## # 005 [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]

- (a) The permittee shall keep records of the supporting calculations used to verify compliance with the particulate matter emission limitation for Source ID P110.
- (b) These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

#### # 006 [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]

- (a) The permittee shall keep records of the supporting calculations used to verify compliance with the 0.84 ton VOC emission limitation for Source ID P110 in any 12 consecutive month period.
- (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.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





### VI. WORK PRACTICE REQUIREMENTS.

#### # 007 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

The permittee shall keep on hand spare filter panels to be able to immediately replace any filter panel that is no longer effective in removing particulate matter as specified by the manufacturer of the filter panel.

#### # 008 [25 Pa. Code §129.75]

#### **Mobile Equipment Repair and Refinishing**

- (a) Pursuant to 25 Pa. Code Section 129.75(e), the permittee shall use one or more of the following application techniques to apply any coating subject to 25 Pa. Code Section 129.75:
- (1) Flow/curtain coating.
- (2) Dip coating.
- (3) Roller coating.
- (4) Brush coating.
- (5) Cotton-tipped swab application.
- (6) Electrodeposition coating.
- (7) High volume low pressure (HVLP) spraying.
- (8) Electrostatic spray.
- (9) Airless spray.
- (10) Other coating application method that the permittee demonstrates and the Department determines achieves emission reductions equivalent to HVLP or electrostatic spray application methods.
- (b) Pursuant to 25 Pa. Code Section 129.75(f), the following situations are exempt from the application equipment requirements in item (a) above:
- (1) The use of airbrush application methods for stenciling, lettering and other identification markings.
- (2) The application of coatings sold in nonrefillable aerosol containers.
- (3) Automotive touch-up repair.

#### # 009 [25 Pa. Code §129.75]

## Mobile Equipment Repair and Refinishing

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 129.75(h) and 127.441]

The permittee shall implement the following housekeeping and pollution prevention and training measures:

- (1) Fresh and used coatings, solvent and cleaning solvents shall be stored in nonabsorbent, nonleaking containers. The containers shall be kept closed at all times except when filling or emptying.
- (2) Cloth and paper, or other absorbent applicators, moistened with coatings, solvents or cleaning solvents, shall be stored in closed, nonabsorbent, nonleaking containers.
- (3) Handling and transfer procedures shall minimize spills during the transfer of coatings, solvents and cleaning solvents through the use of devices including pumps or spouts on larger containers.
- (4) Ensure that a person who applies mobile equipment repair and refinishing coatings has completed training in the proper use and handling of the mobile equipment repair and refinishing coatings, solvents and waste products to minimize the emission of air contaminants and to comply with 25 Pa. Code Section 129.75.

## [25 Pa. Code §129.75]

## Mobile Equipment Repair and Refinishing

Pursuant to 25 Pa. Code Section 129.75(g), spray guns used to apply mobile equipment repair and refinishing coatings shall be cleaned by one of the following:

- (1) An enclosed spray gun cleaning system that is kept closed when not in use.
- (2) Unatomized discharge of solvent into a paint waste container that is kept closed when not in use.
- (3) Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use.
- (4) Atomized spray into a paint waste container that is fitted with a device designed to capture atomized solvent emissions.





#### VII. ADDITIONAL REQUIREMENTS.

# 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P110 is a paint spray booth used to paint and do preparatory work on cars, trucks and other large equipment. The particulate matter emissions from this paint booth shall be controlled by filter panels (ID C110).

# 012 [25 Pa. Code §129.75]

**Mobile Equipment Repair and Refinishing** 

Source ID 110 is subject to 25 Pa. Code Section 129.75. The permittee shall comply with all applicable requirements specified in 25 Pa. Code Section 129.75.

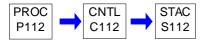
\*\*\* Permit Shield in Effect. \*\*\*





Source ID: P112 Source Name: WOODWORKING OPERATION

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes** 

No person may permit the emission into the outdoor atmosphere of particulate matter from the exhaust of the cyclone (ID C112) associated with Source ID P112 in a manner that the concentration in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

## IV. RECORDKEEPING REQUIREMENTS.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

## VI. WORK PRACTICE REQUIREMENTS.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### VII. ADDITIONAL REQUIREMENTS.

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) Source ID P112 is a woodworking operation located in the Carpentry shop.
- (b) The air contaminant emissions from Source ID P112 shall be controlled by a cyclone (ID C112, installed 7/12/1968).

## \*\*\* Permit Shield in Effect. \*\*\*



Source ID: P113 Source Name: PAINTING OPERATION

Source Capacity/Throughput:



#### L RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes** 

No person may permit the emission into the outdoor atmosphere of particulate matter from the exhaust of ID C113 associated with Source ID P113 in a manner that the concentration in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

#### TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### MONITORING REQUIREMENTS. III.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### IV. RECORDKEEPING REQUIREMENTS.

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep the following records:

- (1) The identity and coating type of each paint, solvent and other VOC containing material used in Source ID P113.
- (2) The volume of each material used each month in Source ID P113.
- (3) The density of each material used in Source ID P113.
- (4) The volume percent of water contained in each material used in Source ID P113.
- (5) The volume percent of non-VOC solvents contained in each material used in Source ID P113.
- (6) The weight percent of VOCs contained in each material used in Source ID P113.
- (7) The VOC content (lbs VOC per gallon of coating -minus water and non-voc solvents) of each material used in Source ID P113.
- (8) The material safety data sheets (MSDSs) or certified product data sheets (CPDSs) of each material used in Source ID
- (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.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

### VI. WORK PRACTICE REQUIREMENTS.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep on hand spare filter panels to be able to immediately replace any filter panel that is no longer effective in removing particulate matter as specified by the manufacturer of the filter panel.

## VII. ADDITIONAL REQUIREMENTS.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) Source ID P113 is a painting operation performed to repaint the wooden pieces for a maintenance purpose, located adjacent to Carpantry shop.
- (b) The air contaminant emissions from Source ID P113 shall be controlled by filter panels (ID C113).

## \*\*\* Permit Shield in Effect. \*\*\*

FM03

#### 14-00003



## **SECTION D.** Source Level Requirements

Source ID: P116 Source Name: HOUSING & FOOD SERVICES 1120 BHP DIESEL-FIRED ENGINE

Source Capacity/Throughput: 52.600 Gal/HR Diesel Fuel

PROC STAC S116

## I. RESTRICTIONS.

## **Emission Restriction(s).**

# 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.41 and 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, no person shall permit the emissions into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emissions from Source ID P116 is equal to or greater than 10% for a period or period aggregating more than three (3) minutes in any one (1) hour; and equal to or greater than 30% at any time.

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the nitrogen oxides (NOx) emissions from the exhaust of Source ID P116 shall not exceed 4.38 grams per brake horsepower-hour, 10.80 pounds per hour and 0.54 ton in any 12 consecutive month period.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the carbon monoxide (CO) emissions from the exhaust of Source ID P116 shall not exceed 1.19 grams per brake horsepower-hour, 2.94 pounds per hour and 0.15 ton in any 12 consecutive month period.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.13 and 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the total particulate matter including particulate matter less than 10 microns in diameter (PM-10) emissions from the exhaust of Source ID P116 shall not exceed 0.12 gram per brake horsepower-hour, 0.29 pound per hour and 0.01 ton in any 12 consecutive month period.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in





40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the volatile organic compounds (VOC, expressed as NMHC) emissions from the exhaust of Source ID P116 shall not exceed 0.17 gram per brake horsepower-hour, 0.42 pound per hour and 0.02 ton in any 12 consecutive month period.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.21]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the sulfur oxides (SOx, expressed as SO2) emissions from the exhaust of Source ID P116 shall not exceed 0.14 gram per brake horsepower-hour, 0.36 pound per hour and 0.02 ton in any 12 consecutive month period.

## Fuel Restriction(s).

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The permittee shall only use diesel fuel that meets the following parameters as fuel for Source ID P116:

- a) sulfur content equal to 15 parts per million (ppm) maximum upon a gallon basis,
- b) minimum cetane index number of 40 or maximum aromatic content equal to 35 percent.

## **Operation Hours Restriction(s).**

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c)(8).]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Source ID P116 shall not operate for more than 100 hours in any 12 consecutive month period.

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID P116 shall operate only for purposes of readiness testing, maintenance checks and emergency situations. Source ID P116 shall not operate for purposes of peak shaving or to supply electricity to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

## II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?





[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID P116 shall be equipped with a non-resettable hour meter prior to initial start-up of Source ID P116 and the non-resettable hour meter shall continuously monitor the hours of operation of Source ID P116.

#### IV. RECORDKEEPING REQUIREMENTS.

## # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall keep accurate and comprehensive records of the following information:

- a) the monthly emissions with supporting documentation of air contaminant pollutants from Source ID P116 used to verify compliance with NOx, CO, SOx, PM and VOC emissions limitations in any 12 consecutive month period (includes total emissions TPY based on a 12-month rolling total for each month),
- b) the number of hours through the non-resettable hour meter that Source ID P116 is operated on a monthly basis and reason of operation (includes total hours based on a 12-month rolling total for each month),
- c) for each delivery of diesel fuel for this engine, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P116,
- d) maintenance records for Source ID P116 that verifies the engine is operated and maintained according to the manufacturer's written instructions and recommendations.

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

#### V. REPORTING REQUIREMENTS.

## # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on an annual basis:

a) the monthly emissions with all supporting documentation of air contaminant pollutants from Source ID P116 used to verify compliance with NOx, CO, SOx, PM and VOC emissions limitations in any 12 consecutive month period (includes total emissions TPY based on a 12-month rolling total for each month in the reporting period, January 1 through December 31), b) the number of hours through the non-resettable hour meter that Source ID P116 is operated on a monthly basis and reason of operation (includes total hours based on a 12-month rolling total for each month in the reporting period, January 1 through December 31).

Annual reports shall be submitted to the Department by March 1.

## # 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

## What notifications must I submit and when?

Pursuant to 40 CFR Section 63.6645(f), within 120 days from initial start-up of Source ID P116, the permittee shall submit initial notification that contains all information specified in 40 CFR Section 63.9(b)(2)(i) through (v) including a statement that Source ID P116 has no additional applicable requirements of 40 CFR Part 63 Subpart ZZZZ and explain the basis for exclusion.

Initial notification shall be submitted to the Department and EPA, at the addresses below, within 120 days from initial start-up of Source ID P116.

Department of Environmental Protection

Air Quality Program





208 West Third Street, Suite 101 Williamsport, PA 17701-6448

Associate Director
Office of Air Enforcement and Compliance Assistance 3AP20
US EPA, Region III
1650 Arch Street
Philadelphia PA 19103-2029

#### VI. WORK PRACTICE REQUIREMENTS.

# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c)]

Source ID P116 shall be operated, configured and maintained according to the manufacturer's written specifications, instructions and recommendations over the entire life of Source ID P116.

#### VII. ADDITIONAL REQUIREMENTS.

## # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116 is an 1120 Bhp, diesel-fired, MTU/Detroit Diesel Model # 12V2000 G84 R123-8A36, Engine Code # 5549 S compression ignited reciprocating internal combustion engine utilized for emergency electricity generation at the Housing and Food Services Building.

#### # 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116 is subject to 40 CFR Part 60, Subpart IIII. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 60.4200 through 60.4219.

### # 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116 is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

## \*\*\* Permit Shield in Effect. \*\*\*



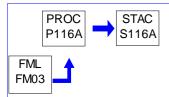
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## **SECTION D.** Source Level Requirements

Source ID: P116A Source Name: DICKENSON SCHOOL OF LAW, 399-BHP, DIESEL-FIRED ENGINE

Source Capacity/Throughput:



#### I. RESTRICTIONS.

## **Emission Restriction(s).**

## # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the carbon monoxide (CO) emissions from the exhaust of Source ID P116A shall not exceed 2.0 grams per brake horsepower-hour.

### # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.41 and 40 CFR Section 60.4205(b)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, no person shall permit the emissions into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emissions from Source ID P116A is equal to or greater than 10% for a period or period aggregating more than three (3) minutes in any one (1) hour; and equal to or greater than 30% at any time.

# 003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal compression.

[Compliance with the requirements specified in this streamlined condition assures compliance with condition 7b.i. and condition 7b.ii. of BAQ-GPA/GP 9.]

The emissions of nitrogen oxides + total hydracarbons (NOx + THC) from the exhaust of Source ID P116A shall not exceed 3.0 grams per brake horsepower-hour.

# 004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4205]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What emission standards must I meet for emergency engines if I am an owner or operator of a stationary Cl internal col

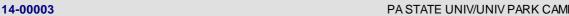
[Compliance with the requirements specified in this streamlined condition assures compliance with condition 7b.v. of BAQ-GPA/GP 9.]

The emissions of particulate matter including particulate matter less than 10 microns in diameter (PM-10) from the exhaust of Source ID P116A shall not exceed 0.15 grams per brake horsepower-hour.

## Fuel Restriction(s).

# 005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to

[Compliance with the requirements specified in this streamlined condition assures compliance with condition 7b.iv. of BAQ-GPA/GP 9.]



The permittee shall only use diesel fuel that meets the following parameters as fuel for Source ID P116A:

- a) sulfur content equal to 15 parts per million (ppm) maximum upon a gallon basis,
- b) minimum cetane index number of 40 or maximum aromatic content equal to 35 percent.

## Operation Hours Restriction(s).

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(c)(8) each emergency generator under Source ID P116A shall be operated less than 500 hours per 12-month rolling period.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The hours of operation of Source ID P116A shall comply with the requirements of 40 CFR § 60.4211(f).

#### TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID P116A shall be equipped with a non-resettable hour meter prior to initial start-up of Source ID P116A and the nonresettable hour meter shall continuously monitor the hours of operation of Source ID P116A.

### RECORDKEEPING REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall keep accurate and comprehensive records of the following information:

- a) the monthly emissions with supporting documentation of air contaminant pollutants from Source ID P116A used to verify compliance with NOx+THC, CO, SOx, and PM emissions limitations in any 12 consecutive month period (includes total emissions TPY based on a 12-month rolling total for each month),
- b) the number of hours through the non-resettable hour meter that Source ID P116A is operated on a monthly basis and reason of operation (includes total hours based on a 12-month rolling total for each month),
- c) the amount of fuel used per calendar year in Source ID P116A,
- d) for each delivery of diesel fuel for this engine, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P116A,
- e) maintenance records for Source ID P116A that verifies the engine is operated and maintained according to the manufacturer's written instructions and recommendations.

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





### REPORTING REQUIREMENTS.

#### #010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on an annual basis:

- a) the monthly emissions with all supporting documentation of air contaminant pollutants from Source ID P116A used to verify compliance with NOx + THC, CO, SOx, and PM emissions limitations in any 12 consecutive month period (includes total emissions TPY based on a 12-month rolling total for each month in the reporting period, January 1 through December 31),
- b) the number of hours through the non-resettable hour meter that Source ID P116A is operated on a monthly basis and reason of operation (includes total hours based on a 12-month rolling total for each month in the reporting period, January 1 through December 31).

Annual reports shall be submitted to the Department by March 1.

#### WORK PRACTICE REQUIREMENTS.

# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c).]

Source ID P116A shall be operated, configured and maintained according to the manufacturer's written specifications, instructions and recommendations over the entire life of Source ID P116A.

#### VII. ADDITIONAL REQUIREMENTS.

#### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116A is an 399 Bhp, diesel-fired, Cummins, Inc. Model No. QSL9-G3 NR3 compression ignited reciprocating internal combustion engine utilized for emergency electricity generation at the Dickenson School of Law Building.

# 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116A is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

# 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P116A is subject to 40 CFR Part 60, Subpart IIII. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 60.4200 through 60.4219.

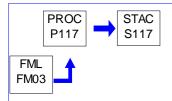
## \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P117 Source Name: COMPUTER BUILDING 2346 BHP DIESEL-FIRED ENGINE

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

### # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.41 and 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, no person shall permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emissions from Source ID P117 is equal to or greater than 15% by Method 9.

# 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the nitrogen oxides (NOx) emissions from the exhaust of Source ID P117 shall not exceed 4.11 grams per brake horsepower, 21.24 pounds per hour and 1.06 tons in any 12 consecutive month period.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the carbon monoxide (CO) emissions from the exhaust of Source ID P117 shall not exceed 0.52 grams per brake horsepower, 2.70 pounds per hour and 0.13 tons in any 12 consecutive month period.

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.21]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the sulfur oxides (SOx, expressed as SO2) emissions from the exhaust of Source ID P117 shall not exceed 0.17 gram per brake horsepower, 0.87 pounds per hour and 0.04 tons in any 12 consecutive month period.

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.13 and 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the particulate matter, including particulate matter having a nominal aerodynamic diameter less than 10 microns, (PWPM10) emissions from the exhaust of Source ID P117 shall not exceed 0.13 gram per brake horsepower, 0.66 pounds per hour and 0.03 tons in any





12 consecutive month period.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the volatile organic compounds (VOC, expressed as nonmethane hydrocarbons, NMHC) emissions from the exhaust of Source ID P117 shall not exceed 0.39 gram per brake horsepower, 2.00 pounds per hour and 0.10 tons in any 12 consecutive month period.

### Fuel Restriction(s).

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The permittee shall only use diesel fuel that meets the following parameters as fuel for Source ID P117:

- a) sulfur content equal to 15 parts per million (ppm) maximum upon a gallon basis,
- b) minimum cetane index number of 40 or maximum aromatic content equal to 35 percent.

The as stored vapor pressure of diesel fuel stored in FM004 shall not exceed 1.5 psia.

### **Operation Hours Restriction(s).**

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c)(8).]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Source ID P117 shall not operate for more than 100 hours in any 12 consecutive month period.

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID P117 shall operate only for purposes of readiness testing, maintenance checks and emergency situations. Source ID P117 shall not operate for purposes of peak shaving or to supply electricity to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

#010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]





Source ID P117 shall be equipped with a non-resettable hour meter prior to initial start-up of Source ID P117 and the nonresettable hour meter shall continuously monitor the hours of operation of Source ID P117.

#### RECORDKEEPING REQUIREMENTS.

#### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall keep records of the following information:

- a) the monthly emissions of nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), particulate matter including particulate matter with a nominal aerodynamic diameter less than 10 microns (PWPM10) and volatile organic compounds (VOC) emissions from the exhaust of Source ID P117 and the supporting calculations/documentation;
- b) the number of hours from the non-resettable hour meter that Source ID P117 is operated on a monthly basis;
- c) for each delivery of diesel fuel for this engine, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P117;
- d) maintenance records for Source ID P117 that verifies the engine is operated and maintained according to the manufacturer's written instructions and recommendations.

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

#### REPORTING REQUIREMENTS.

#### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on an annual basis:

- a) the monthly emissions of nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), particulate matter including particulate matter with a nominal aerodynamic diameter less than 10 microns (PWPM10) and volatile organic compounds (VOC) emissions from the exhaust of Source ID P117 and the supporting calculations/documentation (includes total emissions TPY based on 12-month rolling total for each month in the reporting period);
- b) the number of hours from the non-resettable hour meter that Source ID P117 is operated on a monthly basis (includes total hours based on a 12-month rolling total for each month in the reporting period).

Annual reports shall be submitted to the Department and EPA, at the addresses below, by March 1 for the previous calendar year (January 1 through December 31).

Department of Environmental Protection Air Quality Program 208 West Third Street, Suite 101 Williamsport, PA 17701-6448

Associate Director

Office of Air Enforcement and Compliance Assistance 3AP20

US EPA, Region III

1650 Arch Street

Philadelphia PA 19103-2029

#### [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645] # 013

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal **Combustion Engines** 

What notifications must I submit and when?

Pursuant to 40 CFR Section 63.6645(f), within 120 days from initial start-up of Source ID P117, the permittee shall submit initial notification that contains all information specified in 40 CFR Section 63.9(b)(2)(i) through (v) including a statement that Source ID P117 has no additional applicable requirements of 40 CFR Part 63 Subpart ZZZZ and explain the basis for exclusion.





Initial notification shall be submitted to the Department and EPA, at the addresses below, within 120 days from initial start-up of Source ID P117.

Department of Environmental Protection Air Quality Program 208 West Third Street, Suite 101 Williamsport, PA 17701-6448

Associate Director
Office of Air Enforcement and Compliance Assistance 3AP20
US EPA, Region III
1650 Arch Street
Philadelphia PA 19103-2029

#### VI. WORK PRACTICE REQUIREMENTS.

# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c). ]

Source ID P117 shall be operated, configured and maintained according to the manufacturer's written specifications, instructions and recommendations.

### VII. ADDITIONAL REQUIREMENTS.

### # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P117 is subject to 40 CFR Part 60, Subpart IIII. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 60.4200 through 60.4219.

# 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P117 is a 2346 Bhp, diesel-fired, Mitsubishi Model No. S16R-Y2PTAW-1 compression ignited internal combustion engine utilized for emergency electricity generation.

# 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P117 is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

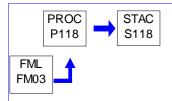
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P118 Source Name: COMPUTER BUILDING 2346 BHP DIESEL-FIRED ENGINE

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the volatile organic compounds (VOC, expressed as nonmethane hydrocarbons, NMHC) emissions from the exhaust of Source ID P118 shall not exceed 0.39 gram per brake horsepower, 2.00 pounds per hour and 0.10 tons in any 12 consecutive month period.

#### # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.13 and 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the particulate matter, including particulate matter having a nominal aerodynamic diameter less than 10 microns, (PWPM10) emissions from the exhaust of Source ID P118 shall not exceed 0.13 gram per brake horsepower, 0.66 pounds per hour and 0.03 tons in any 12 consecutive month period.

#### # 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.41 and 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, no person shall permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emissions from Source ID P118 is equal to or greater than 15% by Method 9.

### # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the nitrogen oxides (NOx) emissions from the exhaust of Source ID P118 shall not exceed 4.11 grams per brake horsepower, 21.24 pounds per hour and 1.06 tons in any 12 consecutive month period.

### # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.4205(b)]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the carbon monoxide (CO) emissions from the exhaust of Source ID P118 shall not exceed 0.52 grams per brake horsepower, 2.70 pounds per hour





and 0.13 tons in any 12 consecutive month period.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.21]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the sulfur oxides (SOx, expressed as SO2) emissions from the exhaust of Source ID P118 shall not exceed 0.17 gram per brake horsepower, 0.87 pounds per hour and 0.04 tons in any 12 consecutive month period.

### Fuel Restriction(s).

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4207]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

The permittee shall only use diesel fuel that meets the following parameters as fuel for Source ID P118:

- a) sulfur content equal to 15 parts per million (ppm) maximum upon a gallon basis,
- b) minimum cetane index number of 40 or maximum aromatic content equal to 35 percent.

The as stored vapor pressure of diesel fuel stored in FM004 shall not exceed 1.5 psia.

# Operation Hours Restriction(s).

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c)(8).]

Pursuant to Best Available Technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Source ID P118 shall not operate for more than 100 hours in any 12 consecutive month period.

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]

Source ID P118 shall operate only for purposes of readiness testing, maintenance checks and emergency situations. Source ID P118 shall not operate for purposes of peak shaving or to supply electricity to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary Cl internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12]



# **SECTION D.** Source Level Requirements

Source ID P118 shall be equipped with a non-resettable hour meter prior to initial start-up of Source ID P118 and the non-resettable hour meter shall continuously monitor the hours of operation of Source ID P118.

#### IV. RECORDKEEPING REQUIREMENTS.

### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with this condition ensures compliance with 25 Pa. Code Section 129.100(d).]

The permittee shall keep records of the following information:

- a) the monthly emissions of nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), particulate matter including particulate matter with a nominal aerodynamic diameter less than 10 microns (PWPM10) and volatile organic compounds (VOC) emissions from the exhaust of Source ID P118 and the supporting calculations/documentation;
- b) the number of hours from the non-resettable hour meter that Source ID P118 is operated on a monthly basis;
- c) for each delivery of diesel fuel for this engine, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P118,
- d) maintenance records for Source ID P118 that verifies the engine is operated and maintained according to the manufacturer's written instructions and recommendations.

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

#### V. REPORTING REQUIREMENTS.

### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on a annual basis:

- a) the monthly emissions of nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), particulate matter including particulate matter with a nominal aerodynamic diameter less than 10 microns (PWPM10) and volatile organic compounds (VOC) emissions from the exhaust of Source ID P118 and the supporting calculations/documentation (includes total emissions TPY based on 12-month rolling total for each month in the reporting period);
- b) the number of hours from the non-resettable hour meter that Source ID P118 is operated on a monthly basis (includes total hours based on a 12-month rolling total for each month in the reporting period).

Annual reports shall be submitted to the Department and EPA, at the addresses below, by March 1.

Department of Environmental Protection Air Quality Program 208 West Third Street, Suite 101 Williamsport, PA 17701-6448

Associate Director

Office of Air Enforcement and Compliance Assistance 3AP20

US EPA, Region III

1650 Arch Street

Philadelphia PA 19103-2029

# # 013 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What notifications must I submit and when?

Pursuant to 40 CFR Section 63.6645(f), within 120 days from initial start-up of Source ID P118, the permittee shall submit initial notification that contains all information specified in 40 CFR Section 63.9(b)(2)(i) through (v) including a statement that Source ID P118 has no additional applicable requirements of 40 CFR Part 63 Subpart ZZZZ and explain the basis for exclusion.





Initial notification shall be submitted to the Department and EPA, at the addresses below, within 120 days from initial start-up of Source ID P118.

Department of Environmental Protection Air Quality Program 208 West Third Street, Suite 101 Williamsport, PA 17701-6448

Associate Director
Office of Air Enforcement and Compliance Assistance 3AP20
US EPA, Region III
1650 Arch Street
Philadelphia PA 19103-2029

#### VI. WORK PRACTICE REQUIREMENTS.

# 014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this permit condition is derived from 25 Pa. Code Sections 127.1 and 127.12. Compliance with this condition ensures compliance with 25 Pa. Code Section 129.97(c).]

Source ID P118 shall be operated, configured and maintained according to the manufacturer's written specifications, instructions and recommendations.

### VII. ADDITIONAL REQUIREMENTS.

### # 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P118 is a 2346 Bhp, diesel-fired, Mitsubishi Model No. S16R-Y2PTAW-1 compression ignited internal combustion engine utilized for emergency electricity generation.

# 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P118 is subject to 40 CFR Part 60, Subpart IIII. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 60.4200 through 60.4219.

# 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P118 is subject to 40 CFR Part 63, Subpart ZZZZ. The permittee shall comply with all the applicable requirements specified in 40 CFR Sections 63.6580 through 63.6675.

# \*\*\* Permit Shield in Effect. \*\*\*

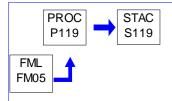




# **SECTION D.** Source Level Requirements

Source ID: P119 Source Name: ECSP 2695 BHP CAT GENERATOR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with 40 CFR §60.4204(b) and the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12]

The permittee shall operate Source ID P119 in a manner such that the rate of emissions do not exceed the following limitations:

- (i) Nitrogen Oxides (NOx) 0.5 gm/bhp-hr
- (ii) Carbon Monoxide (CO) 2.0 gm/bhp-hr
- (iii) Particulate Matter (PM) 0.075 gm/bhp-hr
- (iv) Total Hydrocarbons (THC) 1.0 gm/bhp-hr
- (v) Non-Methane Hydrocarbons (NMHC) 0.3 gm/bhp-hr

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12, visible emissions from the stack (S119) associated with Source ID P119 shall not exceed the following limitations:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 30% at any time.

These limitations apply at all times except during periods of start-up and shut-down, provided, however, that the duration of start-up and shut-down do not exceed one hour per occurrence.

### Fuel Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with the provisions of 25 Pa. Code § 123.22(a)(2) and 40 CFR § 60.4207, as well as the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12]

(a) Source ID P119 shall only be fired on virgin diesel fuel or #2 fuel oil to which no reclaimed or reprocessed oil or other







waste materials have been added. Additionally, the sulfur content shall not, at any time, exceed 0.0015% (by weight).

- (b) The diesel fuel fired in Source ID P119 shall comply with one of the following per-gallon standards:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

### **Operation Hours Restriction(s).**

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this operating permit condition is derived from a request by the permittee]

Operation of Source ID P119 shall not equal or exceed 200 hours in any 12 consecutive month period.

# II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine associated with Source ID P119 shall be equipped with a non-resettable hour meter in order to log the run-time of the engine.

#### IV. RECORDKEEPING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall maintain accurate records, which, at a minimum, shall include:

- a) The number of hours per calendar year that Source ID P119 operated using a non-resettable hour meter.
- b) The amount of fuel used per calendar year in Source ID P119.
- c) Records of vendor guarantees and/or other technical data verifying compliance with the applicable emissions limitations.

These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition as it may reasonably prescribe pursuant to the provisions of Section 4 of the Pennsylvania Air Pollution Control Act (35 P. S. §§4004), and as it may deem necessary to determine compliance with any condition contained in this operating permit.

#### V. REPORTING REQUIREMENTS.

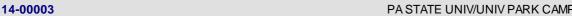
No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### VI. WORK PRACTICE REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P119 shall be operated and maintained in a manner consistent with good operating and maintenance practices as well as with the manufacturer's specifications.





# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this condition is also derived from 40 CFR §60.4204(b)]

Source ID P119 shall be certified to the emission standards for new nonroad CI engines in 40 CFR Part 1039, as applicable, for all pollutants, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

#### VII. ADDITIONAL REQUIREMENTS.

#### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P119 is subject to the requirements of 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The permittee shall comply with all applicable requirements of 40 CFR §§60.4200 - 60.4219 for Source ID P119.

[25 Pa. Code §127.441] #012

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P119 is subject to 40 CFR Part 63 Subpart ZZZZ -National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Pursuant to 40 CFR §63.6590(c)(1), the permittee shall meet the requirements of Subpart ZZZZ through compliance with the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for Source ID P119 under Subpart ZZZZ.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P119 is a 2000 ekW generator powered by a 2696 bhp Caterpillar 2516-C-HD diesel-fired engine located at the facility's East Campus Steam Plant (ECSP).

# \*\*\* Permit Shield in Effect. \*\*\*

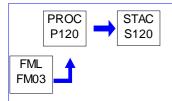




# **SECTION D.** Source Level Requirements

Source ID: P120 Source Name: WCSP 2695 BHP CAT GENERATOR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with 40 CFR §60.4204(b) and the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12]

The permittee shall operate Source ID P120 in a manner such that the rate of emissions do not exceed the following limitations:

- (i) Nitrogen Oxides (NOx) 0.5 gm/bhp-hr
- (ii) Carbon Monoxide (CO) 2.0 gm/bhp-hr
- (iii) Particulate Matter (PM) 0.075 gm/bhp-hr
- (iv) Total Hydrocarbons (THC) 1.0 gm/bhp-hr
- (v) Non-Methane Hydrocarbons (NMHC) 0.3 gm/bhp-hr

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12, visible emissions from the stack (S120) associated with Source ID P120 shall not exceed the following limitations:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 30% at any time.

These limitations apply at all times except during periods of start-up and shut-down, provided, however, that the duration of start-up and shut-down do not exceed one hour per occurrence.

### Fuel Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with the provisions of 25 Pa. Code § 123.22(a)(2) and 40 CFR § 60.4207, as well as the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12]

(a) Source ID P120 shall only be fired on virgin diesel fuel or #2 fuel oil to which no reclaimed or reprocessed oil or other







waste materials have been added. Additionally, the sulfur content shall not, at any time, exceed 0.0015% (by weight).

- (b) The diesel fuel fired in Source ID P120 shall comply with one of the following per-gallon standards:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

### **Operation Hours Restriction(s).**

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this operating permit condition is derived from a request by the permittee]

Operation of Source ID P120 shall not equal or exceed 200 hours in any 12 consecutive month period.

# II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine associated with Source ID P120 shall be equipped with a non-resettable hour meter in order to log the run-time of the engine.

#### IV. RECORDKEEPING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall maintain accurate records, which, at a minimum, shall include:

- a) The number of hours per calendar year that Source ID P120 operated using a non-resettable hour meter.
- b) The amount of fuel used per calendar year in Source ID P120.
- c) Records of vendor guarantees and/or other technical data verifying compliance with the applicable emissions limitations.

These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition as it may reasonably prescribe pursuant to the provisions of Section 4 of the Pennsylvania Air Pollution Control Act (35 P. S. §§4004), and as it may deem necessary to determine compliance with any condition contained in this operating permit.

#### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### VI. WORK PRACTICE REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P120 shall be operated and maintained in a manner consistent with good operating and maintenance practices as well as with the manufacturer's specifications.





# 010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this condition is also derived from 40 CFR §60.4204(b)]

Source ID P120 shall be certified to the emission standards for new nonroad CI engines in 40 CFR Part 1039, as applicable, for all pollutants, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

#### VII. ADDITIONAL REQUIREMENTS.

#### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P120 is subject to the requirements of 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The permittee shall comply with all applicable requirements of 40 CFR §§60.4200 - 60.4219 for Source ID P120.

[25 Pa. Code §127.441] #012

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P120 is subject to 40 CFR Part 63 Subpart ZZZZ -National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Pursuant to 40 CFR §63.6590(c)(1), the permittee shall meet the requirements of Subpart ZZZZ through compliance with the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for Source ID P120 under Subpart ZZZZ.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P120 is a 2000 ekW generator powered by a 2696 bhp Caterpillar 2516-C-HD diesel-fired engine located at the facility's West Campus Steam Plant (WCSP).

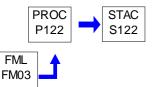
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P122 Source Name: TWO 433KW DOOSAN AIR COMPRESSORS

Source Capacity/Throughput: 3.260 MMBTU/HR



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

The permittee shall not emit particulate matter from the exhaust of Source ID P122 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1, 127.12 and 40 CFR § 60.4204(b)]

The permittee shall operate Source ID P122 in a manner such that the rate of emissions from the stationary reciprocating internal combustion engines (RICE) do not exceed the following limitations:

- (a) Nitrogen Oxide 0.3 grams per horsepower-hour
- (b) Carbon Monoxide 2.6 grams per horsepower-hour
- (c) Particulate Matter 0.015 grams per horsepower-hour
- (d) Nonmethane Hydrocarbons 0.14 grams per horsepower-hour
- (e) Formaldehyde 0.58 ppm @ 15% oxygen

### Fuel Restriction(s).

# # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1 and 127.12 as well as 40 CFR §§ 60.4207(b)]

The diesel fuel fired in Source ID P122 shall comply with the following per-gallon standards:

- (a) Sulfur content of 15 ppm maximum.
- (b) Cetane index or aromatic content, as follows:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.





# **Operation Hours Restriction(s).**

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1 and 127.12]

The permittee shall operate each of the stationary RICE associated with Source ID P122 no more than 200 hours in any 12 consecutive month period.

#### II. TESTING REQUIREMENTS.

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The permittee shall perform tests or provide a fuel certification report for the type and the percent sulfur by weight for each shipment of fuel delivered to this facility which will be utilized by Source ID P122,

OR

- (a) For any diesel fuel which will be utilized by Source ID P122, the permittee shall provide a fuel certification report obtained from the fuel oil supplier once a year stating that fuel delivered to the facility is #2 fuel oil and the sulfur percentage for each shipment of fuel delivered to the facility during the year shall not exceed 15 parts per million sulfur by weight.
- (b) All testing and fuel certification reports shall be in accordance with the provisions of 25 Pa. Code Chapter 139.

#### III. MONITORING REQUIREMENTS.

# 007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall equip the stationary RICE associated with Source P122 with non-resettable hour meters that log the run-time of Source ID P122.

# 008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary Cl internal combustion engine?

The diesel particulate filter incorporated into Source ID P122 shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached.

# IV. RECORDKEEPING REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the following information:

- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and formaldehyde (HCHO) from the exhaust of each engine of Source ID P122 and the supporting calculations/documentation;
- (b) The number of hours from the non-resettable hour meters that Source ID P122 is operated on a monthly basis;
- (c) For each delivery of diesel fuel for these engines, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P122,
- (d) Maintenance records for Source ID P122 that verifies the engines are operated and maintained according to the manufacturer's written instructions and recommendations.

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

#### SECTION D. **Source Level Requirements**

#010 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall keep records of any corrective action taken after a backpressure monitor has notified the owner or operator that the high backpressure limit of an engine is approached.

#### V. REPORTING REQUIREMENTS.

#### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

(a) The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4200 through 60.4219 shall be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

**Environmental Protection Agency** 

Office of Enforcement and Compliance Assistance (3AP20)

1650 Arch Street

Philadelphia, PA 19103

(b) NSPS reports that are submitted electronically to EPA's Central Data Exchange shall be sent to the following website:

https://cdx.epa.gov/

#### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on a annual basis:

- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and formaldehyde (HCHO) from the exhaust of each engine of Source ID P122 and the supporting calculations/documentation (includes total emissions TPY based on 12-month rolling total for each month in the reporting period):
- (b) The number of hours from the non-resettable hour meters that each engine of Source ID P122 is operated on a monthly basis (includes total hours based on a 12-month rolling total for each month in the reporting period).

Annual reports shall be submitted to the Department by March 1.

#### VI. WORK PRACTICE REQUIREMENTS.

# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall:

- (a) Install, configure, operate, and maintain Source ID P122 according to the manufacturer's emission-related written instructions:
- (b) Change only those emission-related settings that are permitted by the manufacturer; and
- (c) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.



# **SECTION D.** Source Level Requirements

#### VII. ADDITIONAL REQUIREMENTS.

# 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P122 are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII). The permittee shall comply with all applicable requirements of 40 CFR §§ 60.4200 through 60.4219.

# 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P122 are subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). The permittee shall comply with all applicable requirements of 40 CFR §§ 63.6580 through 63.6675.

Pursuant to 40 CFR §63.6590(c)(1), the stationary RICE associated with Source ID P122 shall comply with 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for Source ID P122 under Subpart ZZZZ.

# 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source P122 consists of two Doosan model HP1600WCU air compressors powered by 580 brake-horsepower (433kW) 6-cylinder diesel-fired Cummins QSX15 reciprocating internal combustion engines (RICE) with a total engine displacement of 14.9L (2.5 L/cylinder), located at the facility's West Campus Steam Plant (WCSP) and East Campus Steam Plant (ECSP).

# 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1 and 127.12]

The reciprocating internal combustion engines included in Source ID P122 shall include integrated exhaust gas recirculation, selective catalytic reduction, diesel oxidation catalysts, and diesel particulate filters in order to control emissions to the maximum extent feasible.

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# \*\*\* Permit Shield in Effect. \*\*\*

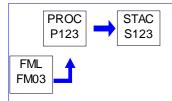
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# **SECTION D.** Source Level Requirements

Source ID: P123 Source Name: HOUSING AND FOOD SERVICES WAREHOUSE GENERATOR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

No person may permit the emission into the outdoor atmosphere of particulate matter from a process in a manner that the concentration of particulate matter in the effluent gas exceeds 0.04 grains per dry standard cubic foot.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with 40 CFR §60.4205(b) and the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12]

The permittee shall operate Source ID P123 in a manner such that the rate of emissions do not exceed the following limitations:

- (i) Nitrogen Oxides (NOx) and Non-Methane Hydrocarbons (NMHC) 4.8 gm/bhp-hr
- (ii) Carbon Monoxide (CO) 2.0 gm/bhp-hr
- (iii) Particulate Matter (PM) 0.15 gm/bhp-hr
- (iv) Total Hydrocarbons (THC) 1.0 gm/bhp-hr

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12, visible emissions from the stack (S123) associated with Source ID P123 shall not exceed the following limitations:

- (1) Equal to or greater than 10% for a period or periods aggregating more than three minutes in any 1 hour.
- (2) Equal to or greater than 30% at any time.

These limitations apply at all times except during periods of start-up and shut-down, provided, however, that the duration of start-up and shut-down do not exceed one hour per occurrence.

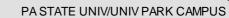
#### Fuel Restriction(s).

### # 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Compliance with the requirments of this streamlined permit condition will assure compliance with the provisions of 25 Pa. Code § 123.22(a)(2) and 40 CFR § 60.4207, as well as the Best Available Technology requirement of 25 Pa. Code §§ 127.1 and 127.12]

(a) Source ID P123 shall only be fired on virgin diesel fuel or #2 fuel oil to which no reclaimed or reprocessed oil or other waste materials have been added. Additionally, the sulfur content shall not, at any time, exceed 0.0015% (by weight).





- (b) The diesel fuel fired in Source ID P123 shall comply with one of the following per-gallon standards:
  - (i) A minimum cetane index of 40; or
- (ii) A maximum aromatic content of 35 volume percent.

### **Operation Hours Restriction(s).**

14-00003

# 006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this operating permit condition is derived from a request by the permittee]

Operation of Source ID P123 shall not equal or exceed 100 hours in any 12 consecutive month period.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The hours of operation of Source ID P123 shall comply with the requirements of 40 CFR § 60.4211(f).

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4209(a)]

The reciprocating internal combustion engine associated with Source ID P123 shall be equipped with a non-resettable hour meter in order to log the run-time of the engine.

# IV. RECORDKEEPING REQUIREMENTS.

# 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR §60.4214(b)]

The permittee shall maintain accurate records, which, at a minimum, shall include:

- a) The number of hours per calendar year that Source ID P123 operated using a non-resettable hour meter, including the times of operation and the reason the engine was in operation during that time.
- b) The amount of fuel used per calendar year in Source ID P123.
- c) Records of vendor guarantees and/or other technical data verifying compliance with the applicable emissions limitations.

These records shall be retained for a minimum of five (5) years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition as it may reasonably prescribe pursuant to the provisions of Section 4 of the Pennsylvania Air Pollution Control Act (35 P. S. §§4004), and as it may deem necessary to determine compliance with any condition contained in this operating permit.

### V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).





#### VI. WORK PRACTICE REQUIREMENTS.

# 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P123 shall be operated and maintained in a manner consistent with good operating and maintenance practices as well as with the manufacturer's specifications.

# 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]

Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

[Additional authority for this condition is also derived from 40 CFR §60.4205(b)]

Source ID P123 shall be certified to the emission standards for new nonroad CI engines in 40 CFR §§ 89.112 and 89.113, as applicable, for all pollutants, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g).

#### VII. ADDITIONAL REQUIREMENTS.

### # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P123 is subject to the requirements of 40 CFR Part 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The permittee shall comply with all applicable requirements of 40 CFR §§60.4200 - 60.4219 for Source ID P123.

# 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The reciprocating internal combustion engine included in Source ID P123 is subject to 40 CFR Part 63 Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Pursuant to 40 CFR §63.6590(c)(1), the permittee shall meet the requirements of Subpart ZZZZ through compliance with the requirements of 40 CFR Part 60 Subpart IIII. No further requirements apply for Source ID P123 under Subpart ZZZZ.

# 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P123 is a 750 kW emergency generator powered by a 1141 brake-horsepower Caterpillar C27ARAAC diesel-fired engine located at the Housing and Food Services Warehouse.

# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P124 Source Name: 2MW DATA CENTER GENERATORS #1 & #2

Source Capacity/Throughput:

PROC STAC S124

#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

**Processes** 

The permittee shall not emit particulate matter from the exhaust of either engine included in Source ID P124 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §123.21]

**General** 

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this streamlined permit condition is also derived from 25 Pa. Code §§127.1, 127.12 and 40 CFR § 60.4205(b)]

The permittee shall operate each engine of Source ID P124 in a manner such that the rate of emissions from the stationary reciprocating internal combustion engines (RICE) does not exceed the following limitations:

- (a) Nitrogen Oxide and Nonmethane Hydrocarbons 3.8 grams/bhp-hr and 1.3 tons/year
- (b) Carbon Monoxide 0.75 grams/bhp-hr and 0.25 tons/year
- (c) Particulate Matter 0.09 grams/bhp-hr and 0.03 tons/year
- (d) Sulfur Oxide 0.01 tons/year

### Fuel Restriction(s).

# 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1 and 127.12 as well as 40 CFR § 60.4207(b)]

The diesel fuel fired in Source ID P124 shall comply with the following per-gallon standards:

- (a) Sulfur content of 15 ppm maximum.
- (b) Cetane index or aromatic content, as follows:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

### Operation Hours Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from a request by the permittee]





Operation of Source ID P124 shall not exceed 100 hours in any 12 consecutive month period.

# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The hours of operation of Source ID P124 shall comply with the restrictions codified in 40 CFR §60.4211(f).

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary Cl internal combustion engine?

The permittee shall equip the stationary RICE associated with Source P124 with non-resettable hour meters prior to startup of the engines.

#### IV. RECORDKEEPING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the following information:

- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and sulfur oxides (SOx) from the exhaust of each engine of Source ID P124 and the supporting calculations/documentation;
- (b) The number of hours from the non-resettable hour meters that Source ID P124 is operated on a monthly basis;
- (c) For each delivery of diesel fuel for these engines, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P124,
- (d) Maintenance records for Source ID P124 that verifies the engines are operated and maintained according to the manufacturer's written instructions and recommendations.

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

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall keep records of the operation of the engines included in Source ID P124 in emergency and nonemergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.



# **SECTION D.** Source Level Requirements

#### V. REPORTING REQUIREMENTS.

#### # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on a annual basis:

- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and sulfur oxides (SOx) from the exhaust of each engine of Source ID P124 and the supporting calculations/documentation (includes total emissions TPY based on 12-month rolling total for each month in the reporting period);
- (b) The number of hours from the non-resettable hour meters that each engine of Source ID P124 is operated on a monthly basis (includes total hours based on a 12-month rolling total for each month in the reporting period).

Annual reports shall be submitted to the Department and EPA by March 1.

#### # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

#### **Subpart A - General Provisions**

Address.

The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4200 through 60.4219 and 63.6645 shall be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

Environmental Protection Agency

Office of Enforcement and Compliance Assistance (3AP20)

1650 Arch Street

Philadelphia, PA 19103

### # 012 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6645]

Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

What notifications must I submit and when?

Because the permittee is required to submit an Initial Notification but is otherwise not affected by the requirements of Subpart ZZZZ, in accordance with §63.6590(b), the notification should include the information in §63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion.

An Initial Notification shall be submitted not later than 120 days after startup of each engine included in Source ID P124.

#### VI. WORK PRACTICE REQUIREMENTS.

# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall:

- (a) Install, configure, operate, and maintain Source ID P124 according to the manufacturer's emission-related written instructions;
- (b) Change only those emission-related settings that are permitted by the manufacturer; and
- (c) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.

### VII. ADDITIONAL REQUIREMENTS.

### # 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P124 are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII). The permittee shall comply with all







applicable requirements of 40 CFR §§ 60.4200 through 60.4219.

# 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P124 are subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). The permittee shall comply with all applicable requirements of 40 CFR §§ 63.6580 through 63.6675.

Pursuant to 40 CFR § 63.6590(b)(i), the permittee is only required to submit initial notifications for the engines included in Source ID P124 in order to comply with the requirements of Subpart ZZZZ.

# 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P124 consists of two 2000 kW Cummins model DQKAE emergency generators powered by 2922 brake-horsepower 16-cylinder diesel-fired Cummins QSK60 reciprocating internal combustion engines with a total engine displacement of 60.2 liters each (3.8 liters/cylinder) located at the Data Center.

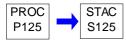
\*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P125 Source Name: 2MW WATER TREATMENT PLANT GENERATOR

Source Capacity/Throughput:



#### I. RESTRICTIONS.

# **Emission Restriction(s).**

# 001 [25 Pa. Code §123.13]

#### **Processes**

The permittee shall not emit particulate matter from the exhaust of the engine included in Source ID P125 in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §123.21]

### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# 003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this streamlined permit condition is also derived from 25 Pa. Code §§127.1, 127.12 and 40 CFR § 60.4205(b)]

The permittee shall operate Source ID P125 in a manner such that the rate of emissions from the stationary reciprocating internal combustion engine (RICE) does not exceed the following limitations:

- (a) Nitrogen Oxides 5.3 grams/bhp-hr and 1.8 tons/year
- (b) Carbon Monoxide 0.18 grams/bhp-hr and 0.06 tons/year
- (c) Nonmethane Hydrocarbons 0.11 grams/bhp-hr and 0.04 tons/year
- (d) Particulate Matter 0.04 grams/bhp-hr and 0.02 tons/year
- (e) Sulfur Oxide 0.01 tons/year

### Fuel Restriction(s).

### # 004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code §§127.1 and 127.12 as well as 40 CFR §§ 60.4207(b) and 80.510(b)]

The diesel fuel fired in Source ID P125 shall comply with the following per-gallon standards:

- (a) Sulfur content of 15 ppm maximum.
- (b) Cetane index or aromatic content, as follows:
  - (i) A minimum cetane index of 40; or
  - (ii) A maximum aromatic content of 35 volume percent.

### Operation Hours Restriction(s).

# 005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from a request from the permittee]





Operation of Source ID P125 shall not exceed 100 hours in any 12 consecutive month period.

# 006 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The hours of operation of Source ID P125 shall comply with the restrictions codified in 40 CFR §60.4211(f).

#### II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

#### III. MONITORING REQUIREMENTS.

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4209]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall equip Source P125 with a non-resettable hour meter prior to startup of the engine.

#### IV. RECORDKEEPING REQUIREMENTS.

# 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the following information:

- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and sulfur oxides (SOx) from the exhaust of the engine of Source ID P125 and the supporting calculations/documentation;
- (b) The number of hours from the non-resettable hour meter that Source ID P125 is operated on a monthly basis;
- (c) For each delivery of diesel fuel for this engine, a copy of the fuel certification report that verifies compliance with diesel fuel requirements for Source ID P125. The facility-wide annual fuel certification required in Section C of this permit may satisfy this recordkeeping requirement provided it verifies a sulfur content of 15 ppm or below,
- (d) Maintenance records for Source ID P125 that verifies the engine is operated and maintained according to the manufacturer's written instructions and recommendations.

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

# 009 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4214]
Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall keep records of the operation of the engine included in Source ID P125 in emergency and nonemergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

# V. REPORTING REQUIREMENTS.

# 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following report on a annual basis:





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- (a) The monthly emissions of nitrogen oxides (NOx), nonmethane hydrocarbons (NMHC), carbon monoxide (CO), particulate matter (PM), and sulfur oxides (SOx) from the exhaust of the engine of Source ID P125 and the supporting calculations/documentation (includes total emissions TPY based on 12-month rolling total for each month in the reporting period);
- (b) The number of hours from the non-resettable hour meter that the engine of Source ID P125 is operated on a monthly basis (includes total hours based on a 12-month rolling total for each month in the reporting period).

Annual reports shall be submitted to the Department and EPA by March 1.

#### # 011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

# **Subpart A - General Provisions**

Address.

The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4200 through 60.4219 and 63.6645 shall be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

Environmental Protection Agency Office of Enforcement and Compliance Assistance (3AP20) 1650 Arch Street Philadelphia, PA 19103

#### VI. WORK PRACTICE REQUIREMENTS.

# 012 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4211] Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

The permittee shall:

- (a) Install, configure, operate, and maintain Source ID P125 according to the manufacturer's emission-related written instructions;
- (b) Change only those emission-related settings that are permitted by the manufacturer; and
- (c) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as applicable.

#### VII. ADDITIONAL REQUIREMENTS.

#### # 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P125 is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII). The permittee shall comply with all applicable requirements of 40 CFR §§ 60.4200 through 60.4219.

#014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The stationary RICE associated with Source ID P125 is subject to the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ). The permittee shall comply with all applicable requirements of 40 CFR §§ 63.6580 through 63.6675.

Pursuant to 40 CFR § 63.6590(b)(i), the permittee is only required to submit initial notifications for the engine included in Source ID P125 in order to comply with the requirements of Subpart ZZZZ.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P125 consists of one 2000 kW Cummins model DQKAB emergency generator powered by a 2922 brake horsepower (bhp) 16-cylinder diesel-fired Cummins QSK60 reciprocating internal combustion engine with a total engine







displacement of 60.2 liters each (3.8 liters/cylinder) located at the Water Treatment Plant.

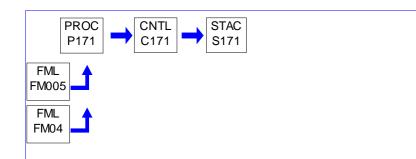
\*\*\* Permit Shield in Effect. \*\*\*



#### SECTION D. **Source Level Requirements**

Source ID: P171 Source Name: COMBINED HEAT AND POWER DUAL-FIRED COMBUSTION TURBINE

> Source Capacity/Throughput: 86.290 MMBTU/HR



#### RESTRICTIONS.

### **Emission Restriction(s).**

#### # 001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to 25 Pa. Code Section 129.97(g)(2)(i), Source ID P171 shall at all times comply with the following emissions limitations:

- (a) 42 ppmvd NOx at 15% oxygen when fired on natural gas;
- (b) 96 ppmvd NOx at 15% oxygen when fired on No. 2 fuel oil.

#### # 002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the total emissions from Source ID P171 while operating in SoLoNOx mode shall not at any time exceed any of the following limitations:

- i) 20.85 tons of nitrogen oxides, expressed as (NO2), in any 12 consecutive month period;
- ii) 0.96 ton of carbon monoxide in any 12 consecutive month period;
- iii) 1.66 tons of sulfur oxides, expressed as (SO2), in any 12 consecutive month period;
- iv) 10.10 tons of particulate matter, including particulate matter having an aerodynamic diameter equal to or less than 10 micrometers (PMPM10) in any 12 consecutive month period;
- v) 5.05 tons of volatile organic compounds in any 12 consecutive month period; and
- vi) 0.32 ton of formaldehyde in any 12 consecutive month period.

#### [25 Pa. Code §127.441]

# Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 40 CFR Section 60.43251

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of nitrogen oxides, expressed as (NO2) from Source ID P171 in a manner that the concentration of NO2 in the effluent gas exceeds the following;

- i) 15 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses natural gas as fuel for operation.
- ii) 74 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses No. 2 oil as fuel for operation.

#### # 004 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, during periods of start-up and shut-down, the nitrogen oxides, expressed as (NO2) emissions from the exhaust of Source ID P171 shall not exceed the following:

- i) 1.2 pounds per start-up and 1.4 pounds per shut-down when Source ID P171 uses natural gas as fuel for operation.
- ii) 2.5 pounds per start-up and 2.7 pounds per shut-down when Source ID P171 uses No. 2 oil as fuel for operation.

#### SECTION D. **Source Level Requirements**

#### # 005 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of carbon monoxide (CO) from Source ID P171 in a manner that the concentration of CO in the effluent gas exceeds the following;

- i) 1.3 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses natural gas as fuel for operation.
- ii) 2.6 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses No. 2 oil as fuel for operation.

#### [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, during periods of start-up and shut-down, the carbon monoxide (CO) emissions from the exhaust of Source ID P171 shall not exceed the following; i) 113.0 pounds per start-up and 118.2 pounds per shut-down when Source ID P171 uses natural gas as fuel for operation. ii) 86.2 pounds per start-up and 78.9 pounds per shut-down when Source ID P171 uses No. 2 oil as fuel for operation.

#### # 007 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not permit the emission into the outdoor atmosphere of volatile organic compounds (VOC) from Source ID P171 in a manner the concentration of VOC in the effluent gas exceeds the following;

- i) 10.8 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses natural gas as fuel for operation.
- ii) 11.2 parts per million, by volume, dry basis, corrected to 15% oxygen at any time Source ID P171 is operating in a SoLoNOx mode and uses No. 2 oil as fuel for operation.

#### # 008 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, during periods of start-up and shut-down, the volatile organic compounds (VOC) emissions from the exhaust of Source ID P171 shall not exceed the following;

- i) 6.5 pounds per start-up and 6.8 pounds per shut-down when Source ID P171 uses natural gas as fuel for operation.
- ii) 14.3 pounds per start-up and 12.8 pounds per shut-down when Source ID P171 uses No. 2 oil as fuel for operation.

#### # 009 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Compliance with the requirement specified in this streamlined permit condition assures compliance with the provisions in 25 Pa. Code Section 123.13]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall not, at any time, permit the emission into the outdoor atmosphere of total particulate matter including particulate matter having a nominal aerodynamic diameter less than 10 microns (PWPM10) from Source ID P171 in excess of the following limitations;

- i) 0.03 pound per million British thermal unit of heat input, at anytime, using natural gas as fuel for operation.
- ii) 0.06 pound per million British thermal unit of heat input, at anytime, using No. 2 oil as fuel for operation.
- iii) 0.01 grain per dry standard cubic foot, at anytime, using No. 2 oil or natural gas as fuel for operation.

#### #010 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 the permittee shall not, at any time, permit the emission into the outdoor atmosphere of formaldehyde emissions from Source ID P171 in excess of 400 ppb (parts per billion), corrected to 15% oxygen.

[40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4330]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What emission limits must I meet for sulfur dioxide (SO2)?





The permittee shall not burn in Source ID P171 any fuel which contains total potential sulfur emissions in excess of 0.060 lb SO2/MMBtu heat input.

### Fuel Restriction(s).

# 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4365(a)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall only use No. 2 oil containing maximum percentage of sulfur equal to 0.05% by weight for fuel to operate Source ID P171.

# 013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4365(a)]

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the permittee shall only use natural gas containing maximum sulfur content equal to 20 grains per 100 standard cubic foot for fuel to operate Source ID P171.

# 014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall never simultaneously use natural gas and No. 2 oil as a combined fuel mixture to operate Source ID P171.

### Throughput Restriction(s).

# 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this plan approval condition is derived from the permittee requesting the following elective restriction]

The amount of No. 2 oil used in Source ID P171 shall not exceed 486,140 gallons in any 12 consecutive month period.

#### II. TESTING REQUIREMENTS.

#### # 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4340(a). Compliance with the nitrogen oxides testing requirements specified under condition (b) below ensures compliance with 25 Pa. Code Section 129.100(a)(4).]

- a) In the calendar year 2023, stack testing shall be conducted on Source ID P171 to determine the NOx, CO, VOC, and HCHO emission rates while operating at maximum rated capacity within 90 days of receipt of an approved testing protocol from the Department's Source Testing Section.
- b) Subsequent stack tests shall be conducted on Source ID P171 to determine the nitrogen oxides (NOx) and carbon monoxide (CO) emission rates while operating at maximum rated capacity on an approximate annual basis, but in each case, no less than 10 months and no more than 14 months following the previous test. If the NOx emission result from the previous performance test is less than or equal to 75 percent of the applicable NOx emission limit specified in 40 CFR Part 60 Subpart KKKK, the permittee may reduce the frequency of subsequent NOx and CO performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOx emission limit established in Subpart KKKK, the permittee shall resume annual performance tests.
- c) Stack tests shall be conducted on Source ID P171 to determine the volatile organic compounds and formaldehyde emission rates while operating at maximum rated capacity on an approximate triennial basis, but in each case, no less than







34 months and no more than 38 months following the previous test.

d) The permittee may request a change in the required frequency of testing once enough data has been generated to determine the consistency of the results; however, the stack testing frequency may not, under any circumstances, become less than the frequency required by 40 CFR Part 60 Subpart KKKK.

# 017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall perform tests (in accordance with the provisions of 25 Pa. Code Chapter 139) or provide a fuel certification report of the percent sulfur by weight of each delivery of the fuel oil delivered to this facility.

OR

The permittee shall keep records of the fuel certification reports obtained yearly from the fuel oil supplier stating that the sulfur percentage for each shipment of fuel oil delivered to the facility during the year shall not exceed 0.05% sulfur (by weight).

# 018 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4400]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I conduct the initial and subsequent performance tests, regarding NOX?

The permittee shall comply with all applicable nitrogen oxides testing requirements specified in 40 CFR Section 60.4400.

# 019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I conduct the initial and subsequent performance tests for sulfur?

The permittee shall comply with all applicable testing requirements for sulfur specified in 40 CFR Section 60.4415.

#### III. MONITORING REQUIREMENTS.

### # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12 and 40 CFR Section 60.4340(b)(ii), Source ID P171 shall be equipped, prior to initial start-up of Source ID P171, with instrumentation to continuously monitor operational parameters that indicate whether the Source ID P171 is operating in a low-NOx (SoLoNOx) mode.

# 021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, the oxidation catalyst (ID C171) associated with Source ID P171 shall be equipped with instrumentation to continuously monitor the catalyst bed inlet and outlet temperatures as well as the pressure differential across the catalyst bed.

# 022 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4340]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How do I demonstrate continuous compliance for NOX if I do not use water or steam injection?

The permittee shall comply with all applicable monitoring requirements specified in 40 CFR Section 60.4340.

# 023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4360]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

How do I determine the total sulfur content of the turbine's combustion fuel?

The permittee shall monitor the total sulfur content of each fuel being used in Source ID P171, in accordance with the requirements specified in 40 CFR Section 60.4360.

#### IV. RECORDKEEPING REQUIREMENTS.

# 024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[With respect to NOx emissions, compliance with this condition ensures compliance with 25 Pa. Code §129.100(d).]

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#### SECTION D. **Source Level Requirements**

- a) The permittee shall keep accurate and comprehensive records of the following information:
  - i) A copy of the stack test reports for any testing performed on Source ID P171.
- ii) Records demonstrating compliance with the maximum natural gas sulfur content.
- b) The permittee shall keep accurate and comprehensive records of the following information on a monthly basis for Source ID P171:
- i) The calculations of air contaminant emissions during SoLoNOx mode from Source ID P171 used to verify compliance with the nitrogen oxides, carbon monoxide, sulfur oxides, volatile organic compounds, formaldehyde, and particulate matter including particulate matter with an aerodynamic diameter less than 10 microns emissions limitations in any 12 consecutive month period established in condition #001 for Source ID P171.
  - ii) The type of fuel used in Source ID P171.
  - iii) The amount of fuel used in Source ID P171.
- iv) The number of start-ups and shut-downs performed on Source ID P171.
- v) For each delivery of No. 2 oil used to operate Source ID P171, a copy of the test results or fuel certification report that verifies compliance with No. 2 oil requirements for Source ID P171. OR The permittee shall keep records of a current, valid purchase contract, tariff sheet or transportation contract obtained yearly from the No. 2 oil supplier stating that the sulfur percentage for each shipment of No. 2 oil delivered to the facility during the year shall not exceed 0.05% sulfur by weight.
- c) The permittee shall keep accurate and comprehensive records of the following information on a daily basis for Source ID P171:
  - i) The percentage of pilot fuel flow to the total fuel flow.
- d) These records shall be kept for a minimum of five (5) years and shall be made available to the Department upon request.

#### V. REPORTING REQUIREMENTS.

#### # 025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit the following information for Source ID P171 on an annual basis:

- i) The monthly emissions of nitrogen oxides, carbon monoxide, sulfur oxides, volatile organic compounds, formaldehyde, and particulate matter including particulate matter with an aerodynamic diameter less than 10 microns emitted during operation in SoLoNOx mode with the supporting calculations/documentation (includes emissions in tons per year based on a 12-month rolling total for each month in a the reporting period).
- The annual emissions of nitrogen oxides, carbon monoxide, and volatile organic compounds resulting from startups and shutdowns.

Annual reports shall be submitted to the Department by March 1 (for the January 1 through December 31 reporting period).

# [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4] **Subpart A - General Provisions**

Address.

The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4300 through 60.4420 must be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

Associate Director Office of Air Enforcement and Compliance Assistance 3AP20 Air Protection Division **USEPA Region 3** 1650 Arch Street

# 027 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

What reports must I submit?

Philadelphia, PA 19103-2029





The permittee must submit a written report of the results of each performance test required by 40 CFR § 60.4340(a) before the close of business on the 60th day following the completion of the performance test.

#### VI. WORK PRACTICE REQUIREMENTS.

# 028 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Source ID P171 shall only operate in a non-SoLoNOx mode during periods of start-up and shut-down. The permittee shall follow the manufacturer's recommendations for procedures of start-up and shut-down.

# 029 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4333]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

What are my general requirements for complying with this subpart?

The permittee shall operate and maintain Source ID P171, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

### VII. ADDITIONAL REQUIREMENTS.

# 030 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P171 consists of a dual-fired, combined heat and power combustion turbine, manufactured as Solar Taurus 70, Serial No. OHD15-B0946 with the capacity to produce 6,800 kW of electricity and heat inputs at peak load equal to 76.83 MMBtu/hr and 86.29 MMBtu/hr when firing natural gas and No. 2 oil, respectively.

# 031 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code Sections 127.1 and 127.12, Source ID P171 shall be equipped with Solar SoLoNOx technology and a 27160 SCFM, BASF oxidation catalyst (ID C171) or equivalent as determined by the Department.

# 032 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P171 is subject to Subpart KKKK of the federal Standards of Performance for New Stationary Sources, 40 CFR Sections 60.4300 through 60.4420. The permittee shall comply with all applicable requirements specified in 40 CFR Sections 60.4300 through 60.4420.

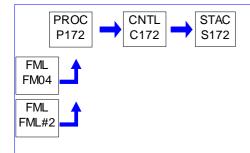
# \*\*\* Permit Shield in Effect. \*\*\*



# **SECTION D.** Source Level Requirements

Source ID: P172 Source Name: WCSP COMBUSTION TURBINE AND HRSG

Source Capacity/Throughput:



#### I. RESTRICTIONS.

### **Emission Restriction(s).**

# # 001 [25 Pa. Code §123.13]

#### **Processes**

The permittee shall not emit particulate matter from the exhaust of Control Device ID C172, associated with Source ID P172, in excess of 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.

# 002 [25 Pa. Code §123.21]

#### **General**

No person may permit the emission into the outdoor atmosphere of sulfur oxides from a source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 parts per million, by volume, dry basis.

# # 003 [25 Pa. Code §127.441]

### Operating permit terms and conditions.

- a) Pursuant to the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the annual emissions from the operation of the combustion turbine and heat recovery steam generator incorporated into Source ID P172, including emissions from startup and shutdown, shall not exceed any of the following in any 12 consecutive month period:
- i) 39.9 tons of nitrogen oxides, expressed as NO2;
- ii) 28.5 tons of carbon monoxide;
- iii) 0.62 tons of sulfur oxides, expressed as SO2;
- iv) 5.2 tons of particulate matter having an aerodynamic diameter equal to or less than 10 micrometers;
- v) 5.2 tons of particulate matter having an aerodynamic diameter equal to or less than 2.5 micrometers;
- vi) 10.2 tons of volatile organic compounds, expressed as propane;
- vii) 0.71 tons of formaldehyde; and
- viii) 83,415 tons of greenhouse gases, expressed as tons of carbon dioxide equivalents (CO2e)
- b) For each month during the first eleven months of operation of Source ID P172, including the shakedown period, the sum of the emissions from the operation of Source ID P172 from all preceding months of operation shall not exceed the limits included in part (a) of this condition.

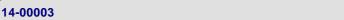
### # 004 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

[Compliance with this streamlined permit condition also assures compliance with the provision in 40 CFR § 60.4330]

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the emissions from the operation of the Solar Taurus 60 combustion turbine incorporated in Source ID P172, without the simultaneous operation of the heat recovery steam generator, shall not exceed the following rates:

- a) When operating the combustion turbine on natural gas:
  - i) nitrogen oxides: 9 parts per million, by volume, dry basis, corrected to 15% oxygen (as NO2)



# \*

# **SECTION D.** Source Level Requirements

- ii) carbon monoxide: 1.3 parts per million, by volume, dry basis, corrected to 15% oxygen
- iii) volatile organic compounds: 2.4 parts per million, by volume, dry basis, corrected to 15% oxygen (as propane)
- iv) sulfur oxides: 0.060 lb/MMBtu of heat input
- v) formaldehyde: 400 parts per billion, by volume, dry basis, corrected to 15% oxygen
- vi) PM10 (filterable and condensable): 0.010 lb/MMBtu of heat input
- vii) PM2.5 (filterable and condensable): 0.010 lb/MMBtu of heat input
- b) When operating the combustion turbine on ultra-low sulfur diesel fuel:
  - i) nitrogen oxides: 65 parts per million, by volume, dry basis, corrected to 15% oxygen (as NO2)
- ii) carbon monoxide: 2.6 parts per million, by volume, dry basis, corrected to 15% oxygen
- iii) volatile organic compounds: 3.9 parts per million, by volume, dry basis, corrected to 15% oxygen (as propane)
- iv) sulfur oxides: 0.060 lb/MMBtu of heat input
- v) formaldehyde: 400 parts per billion, by volume, dry basis, corrected to 15% oxygen
- vi) PM10 (filterable and condensable): 0.020 lb/MMBtu of heat input
- vii) PM2.5 (filterable and condensable): 0.020 lb/MMBtu of heat input

The limits above apply at all times except during periods of Startup and Shutdown

#### # 005 [25 Pa. Code §127.441]

#### Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, during periods of start-up and shut-down, emissions from the operation of Source ID P172 shall not exceed the following:

- a) When operating the combustion turbine on natural gas:
- i) nitrogen oxides: 1 lb per startup and 1 lb per shutdown
- ii) carbon monoxide: 86 lbs per startup and 79 lbs per shutdown
- iii) volatile organic compounds: 22 lbs per startup and 18 lbs per shutdown
- iv) carbon dioxide: 338 lbs per startup and 392 lbs per shutdown
- b) When operating the combustion turbine on ultra-low sulfur diesel fuel:
  - i) nitrogen oxides: 4 lbs per startup and 4 lbs per shutdown
- ii) carbon monoxide: 147 lbs per startup and 116 lbs per shutdown
- iii) volatile organic compounds: 25 lbs per startup and 19 lbs per shutdown
- iv) carbon dioxide: 483 lbs per startup and 580 lbs per shutdown

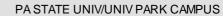
#### # 006 [25 Pa. Code §127.441]

# Operating permit terms and conditions.

[Compliance with this streamlined permit condition also assures compliance with the provision in 40 CFR § 60.4330]

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the emissions from the combined operation of the Solar Taurus 60 combustion turbine and Indeck heat recovery steam generator incorporated in Source ID P172 shall not exceed the following rates:

- a) When operating the combustion turbine on natural gas:
  - i) nitrogen oxides: 8.3 pounds per hour
  - ii) carbon monoxide: 1.3 parts per million, by volume, dry basis, corrected to 15% oxygen
  - iii) volatile organic compounds: 2.4 parts per million, by volume, dry basis, corrected to 15% oxygen (as propane)
  - iv) sulfur oxides: 0.060 lb/MMBtu of heat input
  - v) formaldehyde: 400 parts per billion, by volume, dry basis, corrected to 15% oxygen
  - vi) PM10 (filterable and condensable): 1.15 pounds per hour
  - vii) PM2.5 (filterable and condensable): 1.15 pounds per hour
- b) When operating the combustion turbine on ultra-low sulfur diesel fuel:
- i) nitrogen oxides: 22.0 pounds per hour
- ii) carbon monoxide: 2.6 parts per million, by volume, dry basis, corrected to 15% oxygen
- iii) volatile organic compounds: 3.9 parts per million, by volume, dry basis, corrected to 15% oxygen (as propane)





14-00003

iv) sulfur oxides: 0.060 lb/MMBtu of heat input

v) formaldehyde: 400 parts per billion, by volume, dry basis, corrected to 15% oxygen

vi) PM10 (filterable and condensable): 1.72 pounds per hour

vii) PM2.5 (filterable and condensable): 1.72 pounds per hour

The limits above apply at all times except during periods of Startup and Shutdown

# 007 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4320]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

What emission limits must I meet for nitrogen oxides (NOX)?

[Additional authority for this permit condition is also derived from 40 CFR  $\S60.4325$ ]

The permittee shall not permit the emission into the outdoor atmosphere of nitrogen oxides, expressed as (NO2), from the combined operation of the Solar Taurus 60 combustion turbine and Indeck heat recovery steam generator incorporated in Source ID P172 in a manner that the concentration of NO2 in the effluent gas exceeds the following;

- a) 25 parts per million, by volume, dry basis, corrected to 15% oxygen while the combustion turbine incorporated in Source ID P172 is firing natural gas.
- b) 74 parts per million, by volume, dry basis, corrected to 15% oxygen while the combustion turbine incorporated in Source ID P172 is firing ultra-low sulfur diesel fuel.

### Fuel Restriction(s).

### # 008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a) Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the natural gas combusted in Source ID P172 shall containing a maximum sulfur content equal to 20 grains per 100 standard cubic foot.
- b) Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the ultra-low sulfur diesel fuel combusted in Source ID P172 shall contain a maximum percentage of sulfur equal to 15 parts per million by weight.
- c) The permittee shall never simultaneously use natural gas and ultra-low sulfur diesel as a combined fuel mixture to operate the combustion turbine incorporated in Source ID P172.
- d) The heat recovery steam generator incorporated in Source ID P172 shall only be fired on pipeline-quality natural gas.

### Throughput Restriction(s).

### # 009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this plan approval condition is derived from the permittee requesting the following restriction]

The combustion turbine incorporated in Source ID P172 shall not operate on ultra-low sulfur diesel fuel in excess of 384 hours in any 12 consecutive month period.

### # 010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The total heat input to the combustion turbine and heat recovery steam generator incorporated in Source ID P172 shall not exceed 1,414,740 MMBtu in any 12 consecutive month period.

#### II. TESTING REQUIREMENTS.

### # 011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR § 60.4400]





- a) Within 120 days of initial start-up of Source ID P172, the permittee shall submit a source testing protocol for EPA reference method testing programs for determining the emission rates of nitrogen oxides, carbon monoxide, volatile organic compounds, formaldehyde, particulate matter, total PM10 (filterable and condensable) and total PM2.5 (filterable and condensable).
- b) The permittee shall respond to any request for additional information from BAQ Source Testing within 30 days, or as allowed by the Department.
- c) Within 90 days of receipt of an approved testing protocol from BAQ Source Testing, the permittee shall conduct the approved EPA reference method testing programs while the turbine is operating at plus or minus 10 percent of peak process load, or at other load as approved by the Department.
- d) Testing shall be performed under each of the following operating scenarios:
  - i) The combustion turbine operating alone, while firing natural gas.
- ii) The combustion turbine operating alone, while firing ultra-low sulfur diesel.
- iii) The combustion turbine and heat recovery steam generator together while firing natural gas.
- iv) The combustion turbine firing ultra-low sulfur diesel and the heat recovery steam generator firing natural gas.
- e) All testing shall be performed pursuant to 25 Pa. Code Chapter 139, test methods and procedures that are acceptable to the Department as well as the applicable testing provisions as specified in 40 CFR § 60.4400.

# # 012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 CFR §§ 60.4340(a) and 60.4400]

- a) After the performance of the initial EPA reference method testing program, subsequent EPA reference method testing programs for NOx and CO shall be conducted on Source ID P172 on an annual basis, in order to determine the emission rates while the process is operating at peak load. "Annual basis" for the purposes of this condition is defined to be no more than 14 months from the date of the previous test.
- b) If the NOx emission result from the previous performance test is less than or equal to 75 percent of the NOx emission limit established under 40 CFR Part 60 Subpart KKKK, the permittee may reduce the frequency of subsequent NOx and CO performance tests for Source ID P172 to a biennial basis. "Biennial basis" for purposes of this condition is defined to be no more than 24 months from the date of the previous test.
- c) After the performance of the initial EPA reference method testing program, subsequent EPA reference method tests shall be conducted on the exhaust of Source ID P172 on an approximate triennial basis to determine the volatile organic compounds and formaldehyde emission rates while the process is operating at peak load, but in each case, subsequent tests shall occur no less than 32 months and no more than 36 months following the previous test.
- d) Testing shall be performed under each of the following operating scenarios:
  - i) The combustion turbine operating alone, while firing natural gas.
  - ii) The combustion turbine operating alone, while firing ultra-low sulfur diesel.
  - iii) The combustion turbine and heat recovery steam generator together while firing natural gas.
  - iv) The combustion turbine firing ultra-low sulfur diesel and the heat recovery steam generator firing natural gas.
- e) The permittee may request a change in the required frequency of testing once enough data has been generated to determine the consistency of the results.
- f) All subsequent testing shall be performed using test methods and procedures which are acceptable to the Department and in accordance with 40 CFR § 60.4400.

# 013 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4415]

**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines** 

How do I conduct the initial and subsequent performance tests for sulfur?

The permittee shall comply with all applicable testing requirements for sulfur specified in 40 CFR Section 60.4415.





#### III. MONITORING REQUIREMENTS.

#### #014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to the Best Available Technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the combustion turbine of Source ID P172 shall be equipped, prior to the turbine's initial start-up date, with instrumentation that monitors the manufacturer's recommended operational parameters and continuously indicates whether Source ID P172 is operating in or out of low- NOx mode, i.e. SoLoNOx mode.

# 015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, the oxidation catalyst (ID C172) associated with Source ID P172 shall be equipped with instrumentation to continuously monitor the catalyst bed inlet and outlet temperatures as well as the pressure differential across the catalyst bed.

#### IV. RECORDKEEPING REQUIREMENTS.

#### # 016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a) The permittee shall keep accurate and comprehensive records of the following information regarding Source ID P172:
- i) The monthly air contaminant emissions from the operation of Source ID P172, including the monthly combustion turbine emission calculations for periods of startup/shutdown, in order to verify compliance with the 12 consecutive month emissions restrictions.
- ii) The type and amount of fuel used in Source ID P172 on a monthly basis, in order to verify compliance with the 12 consecutive month fuel throughput restrictions.
  - iii) The number of hours Source ID P172 operated on a monthly basis.
- iv) The number of startups and shutdowns of Source ID P172 performed each month.
- v) Copies of the EPA reference method stack testing reports.
- vi) Maintenance performed on Source ID P172.
- b) All information generated to meet the requirements of this condition shall be kept for a minimum of five (5) years and shall be made available to the Department upon request.

#### # 017 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4365]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

How can I be exempted from monitoring the total sulfur content of the fuel?

The permittee shall maintain documentation of the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuels fired in Source ID P172, specifying that the maximum total sulfur content in parts per million (by weight) for ultra-low sulfur diesel fuel and in grains per 100 standard cubic feet for natural gas.

#### V. REPORTING REQUIREMENTS.

#### # 018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a) The permittee shall submit the following information for Source ID P172 on a semiannual basis:
- i) The monthly emissions of nitrogen oxides, carbon monoxide, volatile organic compounds, sulfur oxides, formaldehyde, and particulate matter including PM10 and PM2.5, with the supporting calculations/documentation;
- ii) The 12-month rolling total emissions of nitrogen oxides, carbon monoxide, volatile organic compounds, sulfur oxides, formaldehyde, and particulate matter including PM10 and PM2.5, with the supporting calculations/documentation;
- iii) The 12-month rolling total of number of hours of ultra-low sulfur diesel firing of the combustion turbine incorporated in Source ID P172;
- iv) The 12-month rolling total of heat input to Source ID P172.
- b) All semiannual reports shall be submitted to the Department no later than March 1 (For January 1 through December 31 of the previous year) and September 1 (for July 1 of the previous year through June 30 of the current year).



# # 019 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4]

### **Subpart A - General Provisions**

#### Address.

a) The submission of all requests, reports, applications, submittals and other communications required by 40 CFR Sections 60.4300 through 60.4420 shall be made to both the Department of Environmental Protection and the Environmental Protection Agency. The Environmental Protection Agency copies may be sent to:

**Environmental Protection Agency** 

Office of Enforcement and Compliance Assistance (3AP20)

1650 Arch Street

Philadelphia, PA 19103

b) NSPS and MACT reports that are submitted electronically to EPA's Central Data Exchange must be sent to the following website:

https://cdx.epa.gov/

### VI. WORK PRACTICE REQUIREMENTS.

### # 020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, Source ID P172 shall only operate in a non-SoLoNOx mode during periods of start-up and shut-down. The permittee shall follow the manufacturer's recommendations for start-up and shut-down procedures.

# 021 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4333]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What are my general requirements for complying with this subpart?

The permittee shall operate and maintain Source ID P172, including air pollution control equipment and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.

#### VII. ADDITIONAL REQUIREMENTS.

### # 022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P172 is a Combined Heat and Power unit consisting of a natural gas-fired lean-burn pre-mix Solar Taurus 60-7901S turbine, with backup ultra-low sulfur diesel firing capability, with an electric output of approximately 6.5 MW followed by a natural gas-fired Indeck Heat Recovery Steam Generator rated at a maximum heat input capacity of 94.9 MMBtu/hr. Emissions from the combustion turbine and heat recovery steam generator will be controlled by an Indeck oxidation catalyst (ID C172).

#### # 023 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Pursuant to best available technology requirements of 25 Pa. Code §§ 127.1 and 127.12, Source ID P172 shall be equipped with Solar SoLoNOx technology and a Indeck oxidation catalyst (ID C172) or equivalent as determined by the Department.

### # 024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source ID P172 is subject to Subpart KKKK of the federal Standards of Performance for New Stationary Sources, 40 CFR §§ 60.4300 through 60.4420. The permittee shall comply with all applicable requirements specified in 40 CFR §§ 60.4300 through 60.4420.

# 025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The following definitions apply to the operation of Source ID P172:



- (a) "Startup" means the ten minute period following the setting in operation of Source ID P172 for any purpose.
- (b) "Shutdown" means the ten minute period preceding cessation of operation of Source ID P172 for any purpose.

\*\*\* Permit Shield in Effect. \*\*\*



**SECTION E.** Source Group Restrictions.



# **SECTION F.** Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.





# **SECTION G.** Emission Restriction Summary.

Source Id	Source Description			
036	ECSP BOILER 1			
<b>Emission Limit</b>			Pollutant	
0.200	Lbs/MMBTU		NOX	
107.500	Tons/Yr	any 12 months	NOX	
4.000	Lbs/MMBTU		SOX	
0.400	Lbs/MMBTU		TSP	

037 ECSP BOILER 2

<b>Emission Limit</b>			Pollutant
0.200	Lbs/MMBTU		NOX
107.500	Tons/Yr	any 12 months	NOX
4.000	Lbs/MMBTU		SOX
0.400	Lbs/MMBTU		TSP

P105 WASTEWATER TREATMENT PLANT

<b>Emission Limit</b>		Pollutant
0.040	gr/DRY FT3	PM10
500.000	PPMV	SOX

P106A BEAVER STADIUM EMERGENCY GENERATOR

En	nission Limit		Pollutant
	500.000	PPMV	SOX
	0.040	gr/DRY FT3	TSP

P110 MOBILE EQUIPMENT PAINT SPRAY BOOTH

<b>Emission Limit</b>		Pollutant
0.040	gr/DRY FT3	TSP
0.840	Tons/Yr	VOC

# **Site Emission Restriction Summary**

Emission Limit	Dallasta at
HMISSION LIMIT	Pollutant



### SECTION H. Miscellaneous.

- (1) The following air contaminant sources are considered to be insignificant in regards to air contaminant emissions and have been determined by the Department to be exempt from permitting requirements. However, this determination does not exempt the sources from compliance with all applicable State and Federal regulations and all applicable air quality regulations specified in 25 Pa. Code Chapters 121-145:
- (a) Two packed bed air stripping towers used to remove tetrachloroethylene (PCE) from the potable water pumped from the Houserville Well Field.
- (b) Over 2,000 laboratory fume hoods located in buildings throughout the University.
- (c) Two #2 fuel oil storage tanks, each of 175,000 gallons capacity, located at East Campus Steam Plant.
- (d) West Campus Steam Plant #2 fuel oil storage tanks.
- (e) 15 MMBtu/hr natural gas-fired burner at the START Turbine Research Lab (< 500 hrs/yr of operation).
- (f) A painting operation located adjacent to Carpentry shop.





\*\*\*\*\* End of Report \*\*\*\*\*