



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

November 8, 2021 Issue Date: Effective Date: August 4, 2025 **Revision Date:** August 4, 2025 November 7, 2026 Expiration Date:

Revision Type: Modification

> 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: 46-00031

Federal Tax Id - Plant Code: 23-2809002

Owner Information

Name: GLAXOSMITHKLINE LLC Mailing Address: 1250 S COLLEGEVILLE RD

COLLEGEVILLE, PA 19426-2990

Plant Information

Plant: GLAXO SMITHKLINE/UPPER PROVIDENCE

Location: 46 46957 Upper Providence Township Montgomery County

SIC Code: 2834 Manufacturing - Pharmaceutical Preparations

Responsible Official

Name: KIM GAUTHIER

Title: HEAD OF FAC & ENG, WREF

Phone: (848) 264 - 6456 Email: kim.k.gauthier@gsk.com

Permit Contact Person

Name: AMY FISHER Title: EHS US REG LEAD

Phone: (215) 356 - 2393 Email: amy.x.fisher@gsk.com

[Signature]

JILLIAN A. GALLAGHER, SOUTHEAST REGION AIR PROGRAMMANAGER





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SECTION A. Site Inventory List

	SECTION A. Site inventory List					
Source	ID Source Name	Capacity/	Throughput	Fuel/Material		
030	BOILER MACT FOR #2 FUEL OIL & NATURAL GAS BOILERS					
031	BOILER 7.1	31.400	MMBTU/HR			
			N/A	#2 OIL		
			N/A	NATL GAS		
032	BOILER 7.2	56.800	MMBTU/HR			
			N/A	#2 OIL		
			N/A	NATL GAS		
033	BOILER 7.3	56.800	MMBTU/HR			
			N/A	#2 OIL		
			N/A	Natural Gas		
034	BOILER 7.4	56.800	MMBTU/HR			
			N/A	#2 Oil		
			N/A	NATL GAS		
036A	NO.2 OIL GENERATOR 7.1	135.000	Gal/HR	#2 Oil		
037A	NO.2 OIL GENERATOR 7.2	135.000	Gal/HR	#2 Oil		
038A	NO.2 OIL GENERATOR 7.3	135.000	Gal/HR	#2 Oil		
039A	NO.2 OIL GENERATOR 7.4	135.000	Gal/HR	#2 Oil		
040A	NO.2 OIL GENERATOR 7.5	135.000	Gal/HR	#2 Oil		
041A	NO.2 OIL GENERATOR 7.6	135.000	Gal/HR	#2 Oil		
042	NO.2 OIL GENERATOR 7.7					
102	PILOT PLANT PRIMARY FAC (LEGACY) - BLDG 8					
106	BLDG 7, 2000 KW ER EGEN					
C036A	OXIDATION CATALYST					
C037A	OXIDATION CATALYST					
C038A	OXIDATION CATALYST					
C039A	OXIDATION CATALYST					
C040A	OXIDATION CATALYST					
C041A	OXIDATION CATALYST					
C042	OXIDATION CATALYST					
C102	SCRUBBER, ORIGIN. BLDG.					
C102E	BLDG 8 EAST WING SCRUBBER					
C102W	BLDG 8 WEST WING SCRUBBER					
C103C	DUST COLLECTOR 9.3					
001	#2 FUEL OIL					
002	NATURAL GAS LINE					
S102	BLDG 8 SCRUBBER STACK					
S102E	BLDG 8 EAST WING SCRUBBER STACK					
S102W	BLDG 8 WEST WING SCRUBBER STACK					
S106	BLDG 7, 2000 KW ER EGEN STACK					
S31	BOILER 7.1 STACK					

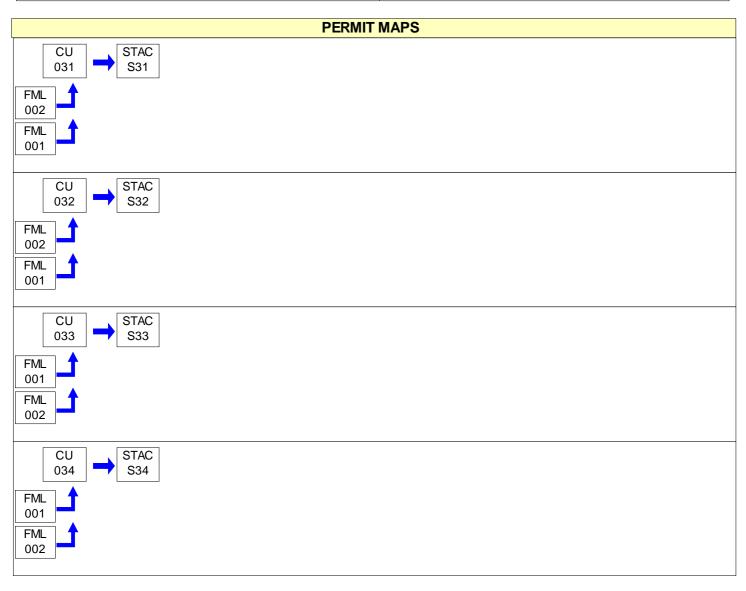






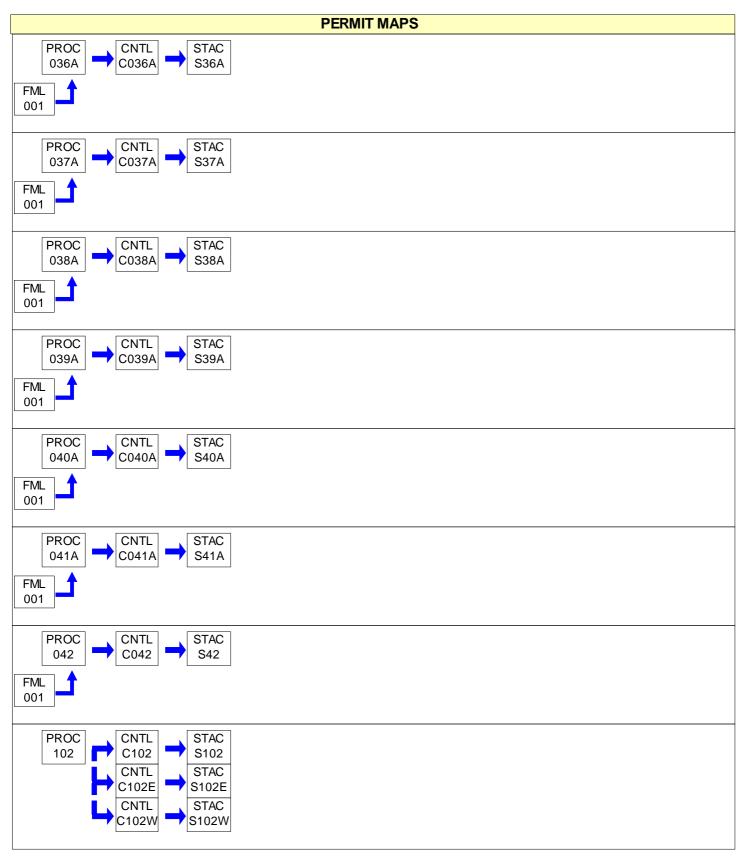
SECTION A. Site Inventory List

Source I	D Source Name	Capacity/Throughput	Fuel/Material
S32	BOILER 7.2 STACK		
S33	BOILER 7.3 STACK		
S34	BOILER 7.4 STACK		
S36A	GENERATOR 7.1 STACK		
S37A	GENERATOR 7.2 STACK		
S38A	GENERATOR 7.3 STACK		
S39A	GENERATOR 7.4 STACK		
S40A	GENERATOR 7.5 STACK		
S41A	GENERATOR 7.6 STACK		
S42	NO. 2 OIL GENERATOR 7.7 STACK		



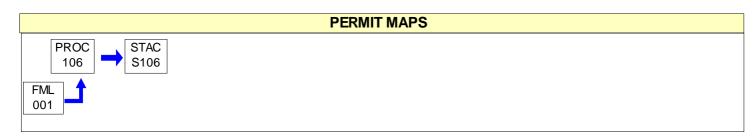
















#001 [25 Pa. Code § 121.1]

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 Air Pollution Control Act (35 P.S. §§ 4001-4015).

#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. Apperson 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





GLAXO SMITHKLINE/UPPER PROVIDENCE

SECTION B. General Title V Requirements

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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.

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

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.







- (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 §121.7]

Prohibition of air pollution.

No person shall permit air pollution as that term is defined in the Air Pollution Control Act (35 P.S. Section 4003).

002 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

The permittee shall not permit the emission into the outdoor atmosphere of fugitive air contaminant 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) Coke oven batteries, provided the fugitive air contaminants emitted from any coke oven battery comply with the standards for visible fugitive emissions in 25 Pa. Code § 123.44 and 129.15 (relating to limitations of visible fugitive air contaminants from operation of any coke oven battery; and coke pushing operations).
- (9) Sources and classes of sources other than those identified in paragraphs (1)-(8), for which the operator has obtained a determination from the Department that fugitive emissions from the source, after appropriate control, meet the following requirements:
 - (i) the emissions are of minor significance with respect to causing air pollution; and
- (ii) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

003 [25 Pa. Code §123.2]

Fugitive particulate matter

The permittee shall not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in 25 Pa. Code 123.1(a)(1-9), if such emissions are visible at the point the emissions pass outside the person's property.

004 [25 Pa. Code §123.31]

Limitations

The permittee shall not permit the emission into the outdoor atmosphere of any malodorous air contaminants 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.

005 [25 Pa. Code §123.41]

Limitations

The permittee shall 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:

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





SECTION C. Site Level Requirements

006 [25 Pa. Code §123.42]

Exceptions

The limitations of 25 Pa. Code Section 123.41 shall not apply to a visible emission in either of the following instances:

- (a) When the presence of uncombined water is the only reason for failure to meet the limitations.
- (b) When the emission results from the sources specified in 25 Pa. Code 123.1(a)(1-9).

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall reduce emissions of Class I and class II refrigerants during the service, maintenance, repair, and disposal of equipment in accordance with the requirements of 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall limit the total combined emissions from the facility to less than the following, calculated on a 12-month rolling sum:

- a. NOx emissions to less than 49.9 tons per year.
- b. Individual HAP emissions to less than 9.9 tons per year.
- c. Total HAP emissions to less than 24.9 tons per year.

009 [25 Pa. Code §129.14]

Open burning operations

The permittee shall not permit the open burning of material in the Southeast Air Basin except where the open burning operations result from:

- (a) a fire set to prevent or abate a fire hazard, when approved by the Department and set by or under the supervision of a public officer;
- (b) any fire set for the purpose of instructing personnel in fire fighting, when approved by the Department;
- (c) a fire set for the prevention and control of disease or pests, when approved by the Department;
- (d) a fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation;
- (e) a fire set for the purpose of burning domestic refuse, when the fire is on the premises of a structure occupied solely as a dwelling by two families or less and when the refuse results from the normal occupancy of the structure;
- (f) a fire set solely for recreational or ceremonial purposes; or
- (g) a fire set solely for cooking food.

II. TESTING REQUIREMENTS.

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) If at any time the Department has cause to believe that air contaminant emissions from any source(s) listed in Section A, of this Permit, may be in excess of the limitations specified in this Permit, or established pursuant to, any applicable rule or regulation contained in 25 Pa. Code Article III, the permittee shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s).
- (b) Such testing shall be conducted in accordance with the provisions of 25 Pa. Code Chapter 139, when applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the permittee that



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SECTION C. Site Level Requirements

testing is required.

III. MONITORING REQUIREMENTS.

011 [25 Pa. Code §123.43]

Measuring techniques

Visible emissions shall be measured using either of the following:

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

012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall calculate the total combined NOx, total HAP and individual HAP emissions from the facility monthly and on a 12-month rolling sum.

013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511]

- (a) The permittee shall monitor the facility, once per operating day, for the following:
- (1) odors which may be objectionable (as per 25 Pa. Code §123.31);
- (2) visible emissions (as per 25 Pa. Code §§123.41 and 123.42); and
- (3) fugitive particulate matter (as per 25 Pa. Code §§ 123.1 and 123.2).
- (b) Objectionable odors, fugitive particulate emissions, and visible emissions that are caused or may be caused by operations at the site shall:
 - (1) be investigated;
 - (2) be reported to the facility management, or individual(s) designated by the permittee;
 - (3) have appropriate corrective action taken (for emissions that originate on-site); and
 - (4) be recorded in a permanent written log.
- (c) After six (6) months of daily monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the monitoring frequency to weekly for the next six month period.
- (d) After six (6) months of weekly monitoring, and upon the permittee's request, the Department will determine the feasibility of decreasing the frequency of monitoring to monthly.
- (e) The Department reserves the right to change the above monitoring requirements at any time, based on but not limited to: the review of the compliance certification, complaints, monitoring results, and/or Department findings.

IV. RECORDKEEPING REQUIREMENTS.

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511.]

The permittee shall maintain a record of all monitoring of fugitive emissions, visible emissions and odors, including those that deviate from the conditions found in this permit. The record of deviations shall contain, at a minimum, the following items:

(a) date, time, and location of the incident(s);





SECTION C. Site Level Requirements

- (b) the cause of the event; and
- (c) the corrective action taken, if necessary, to abate the situation and prevent future occurrences.

015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall maintain records of all the facility's increases of emissions from the following categories:

- (a) Deminimus increases without notification to the Department.
- (b) Deminimus increases with notification to the Department, via letter.
- (c) Increases resulting from a Request for Determination (RFD) to the Department.
- (d) Increases resulting from the issuance of a plan approval and subsequent operating permit.

016 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the total combined NOx emissions, toal HAP emissions and individual HAP emissions from the facility monthly and on a 12-month rolling sum.

V. REPORTING REQUIREMENTS.

017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.511.]

- (a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department at 484-250-5920. 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. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
- (b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.
- (c) The report shall describe the following:
- (1) Name, permit or authorization number, and location of the facility;
- (2) Nature and cause of the malfunction, emergency or incident;
- (3) Date and time when the malfunction, emergency or incident was first observed;
- (4) Expected duration of excess emissions:
- (5) Estimated rate of emissions; and
- (6) Corrective actions or preventative measures taken.
- (d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.
- (e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.





SECTION C. **Site Level Requirements**

- (f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.
- (g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

#018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Department has changed the deviation and compliance certification reporting requirements. The initial reports for (a) and (b), below, shall be due on the dates provided and may cover only a partial reporting period.

The permittee shall submit the following reports:

- (a) An annual certificate of compliance, due by April 1st of each year, for the period covering January 1 through December 31 of the previous year. This certificate of compliance shall document compliance with all permit terms and conditions set forth in this Title V permit as required under condition #24 of section B of this permit.
- (b) A semi annual deviation report, due by October 1, of each year, for the period covering January 1 through June 30 of the same year.

Note: The annual certification of compliance fulfills the obligation for the second deviation reporting period (July 1 through December 31 of the previous year).

019 [25 Pa. Code §135.3]

Reporting

- (a) The permittee shall submit by March 1, of each year, an Air Information Management System (AIMS) inventory report for the preceding calendar year.
- (b) The permittee may request an extension of time from the Department for the filing of a source report, and the Department may grant the extension for reasonable cause.

VI. WORK PRACTICE REQUIREMENTS.

020 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

A person responsible for any source specified in 25 Pa. Code 1231.1(a)(1-9), shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:

- (a) Use, where possible, of water or suitable chemicals, as approved by the Department, for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (b) Application of asphalt, water, or other suitable chemicals, as approved by the Department, on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
- (c) Paving and maintenance of roadways.
- (d) 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 by other means.

021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.512(h).]

The permittee shall immediately, upon discovery, implement measures, which may include the application for the





SECTION C. Site Level Requirements

installation of an air cleaning device(s), if necessary, to reduce the air contaminant emissions to within applicable limitations, if at any time the operation of the source(s) identified in Section A, of this permit, is causing the emission of air contaminants in excess of the limitations specified in, or established pursuant to, 25 Pa. Code Article III or any other applicable rule promulgated under the Clean Air Act.

022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow the Department to have access at any time to said source(s) and associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.

023 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 127.512(h).]

The permittee shall not modify any air contaminant system identified in this permit, prior to obtaining Department approval, except those modifications authorized by Condition #017(g), of Section B, of this permit.

VII. ADDITIONAL REQUIREMENTS.

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

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: 030 Source Name: BOILER MACT FOR #2 FUEL OIL & NATURAL GAS BOILERS

Source Capacity/Throughput:

I. RESTRICTIONS.

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

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.

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?

The permittee shall keep of copy of each notification and report that is submitted to comply with Subpart JJJJJJ and all documentation supporting any initial notification or notification of compliance status submitted.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?

The permittee shall keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 C.F.R. § 63.11214 and 40 C.F.R. § 63.11223 as specified in paragraphs (2)(i) through (ii) of this condition:

- (i). Records must indentify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
- (ii). For each boiler required to conduct an energy assessment, you must keep a copy of the energy assessment report, and make the report available upon request.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?

The permittee shall keep records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?

The permittee shall keep records of any action taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 C.F.R. § 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources





What are my notification, reporting, and recordkeeping requirements?

The permittee shall keep records of all inspections and monitoring data required by 40 C.F.R. § 63.11221 and 40 C.F.R. § 63.11222, and the information identified in paragraphs (i) through (vi) of this condition for each required inspection or monitoring.

- i. The date, place, and time of the monitoring event.
- ii. Person conducting the monitoring.
- iii. Technique or method used.
- iv. Operating conditions during the activity.
- v. Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.
- vi. Maintenance or corrective action taken (if applicable).

V. REPORTING REQUIREMENTS.

006 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?

[Additional Authority for this permit condition was also derived from 40 C.F.R. § 63.11225(b)]

- By March 1 of each year, the owner must prepare and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year. The report must be submitted by March 15 if there were any deviations from applicable requirements during the reporting period. For boilers that are subject only to the energy assessment requirement and/or a requirement to conduct a biennial or 5-year tune-up according to §63.11223(a) and not subject to emission limits or operating limits, the owner may prepare only a biennial or 5-year compliance report as specified in paragraphs (a) and (b) of this section.
 - (a) Company name and address.
- (b) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart. The notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
- (i) "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
- (ii) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."
- (iii) "This facility complies with the requirement in §63.11214(d) and § 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

007 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11225]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

What are my notification, reporting, and recordkeeping requirements?







For boilers located at existing major sources of HAP that limit their potential to emit (e.g.,make a physical change or take a permit limit) such that the existing major source becomes an area source, you must comply with the applicable provisions as specified in paragraphs (a) and (b) of this condition:

- (a). Any such existing boiler at the existing source must demonstrate compliance with Subpart JJJJJJ within 180 days of the later of March 21, 2014, or upon the existing major source commencing operation as an area source.
- (b). An initial notification of such changes must be submitted within 120 days after becoming subject to Subpart JJJJJJ, according to 40 C.F.R. Section 63.11225(g).

VI. WORK PRACTICE REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional Authority for this permit condition was also derived from 40 C.F.R. 63.11201(b) and 63.11237]

The permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in table 2 of 40 C.F.R. 63 satisfies the energy assessment requirement. The energy assessment must include the following:

- (1) A visual inspection of the boiler system,
- (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints,
- (3) Inventory of major systems consuming energy from affected boiler(s),
- (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
- (5) A list of major energy conservation measures,
- (6) A list of the energy savings potential of the energy conservation measures identified,
- (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall operate and maintain this source in a manner consistent with safety and good air pollution practices for minimizing emissions and in accordance with the manufacturer's specifications.

[Compliance with this condition assures compliance with 40 C.F.R. 63.11205(a)]

010 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11223]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

How do I demonstrate continuous compliance with the work practice and management practice standards?

Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up must conduct a tune-up of the boiler every 5 years as specified in 40 C.F.R. Section 63.11223(b)(1-7). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.



011 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.11223]

Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

How do I demonstrate continuous compliance with the work practice and management practice standards?

Existing oil-fired boilers with heat input capacity greater than 5 MMBtu/hr that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio shall conduct an initial tune-up as specified in paragraphs (1) through (7) of this condition, and conduct a tune-up of the boiler biennially as specified in 40 C.F.R. Section 63.11223. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

- (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection.
- (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
- (4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (6) Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (b)(6)(i) through (iii) of this section.
- (i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (ii) A description of any corrective actions taken as a part of the tune-up of the boiler.
- (iii) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- (7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

VII. ADDITIONAL REQUIREMENTS.

012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This Source ID Group 030, Boiler MACT for No.2 fuel oil and natural gas boilers consists of the following Sources:

-Source ID 031: Boiler 7.1 -Source ID 032: Boiler 7.2 -Source ID 033: Boiler 7.3

-Source ID 034: Boiler 7.4

*** Permit Shield in Effect. ***



46-00031



SECTION D. Source Level Requirements

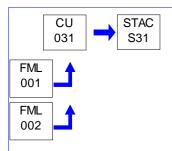
Source ID: 031 Source Name: BOILER 7.1

Source Capacity/Throughput: 31.400 MMBTU/HR

N/A #2 OIL N/A NATL GAS

Conditions for this source occur in the following groups: 1

5



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

The permittee may not permit the emission into the outdoor atmosphere of particulate matter from any of the above combustion sources in excess of the rate of 0.4 pound per million Btu of heat input.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code § 129.91-95]

The following emission rate (averaged daily) shall not be exceeded:

- (a) NOx, when operating on natural gas 3.1 lbs/hr.
- (b) NOx, when operating on No. 2 fuel oil 5.7 lbs/hr.
- (c) VOC, when operating on natural gas 0.38 lbs/hr.
- (d) VOC, when operating on No. 2 fuel oil 0.63 lbs/hr.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).



46-00031



SECTION D. Source Level 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) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***





Source ID: 032 Source Name: BOILER 7.2

> Source Capacity/Throughput: 56.800 MMBTU/HR

> > #2 OIL N/A NATL GAS N/A

Conditions for this source occur in the following groups: 1

2 5

CU STAC 032 S32 **FML** 001

RESTRICTIONS.

FML 002

> No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

WORK PRACTICE REQUIREMENTS. VI.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

ADDITIONAL REQUIREMENTS. VII.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).





*** Permit Shield in Effect. ***





Source ID: 033 Source Name: BOILER 7.3

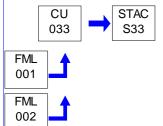
Source Capacity/Throughput: 56.800 MMBTU/HR

N/A #2 OIL

N/A Natural Gas

Conditions for this source occur in the following groups: 1

2



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).



*** Permit Shield in Effect. ***





Source ID: 034 Source Name: BOILER 7.4

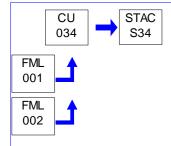
> Source Capacity/Throughput: 56.800 MMBTU/HR

> > #2 Oil N/A NATL GAS N/A

Conditions for this source occur in the following groups: 1

2

5



RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

RECORDKEEPING REQUIREMENTS. IV.

No additional record keeping requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

WORK PRACTICE REQUIREMENTS. VI.

No additional work practice requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

ADDITIONAL REQUIREMENTS. VII.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).





*** Permit Shield in Effect. ***



46-00031



SECTION D. Source Level Requirements

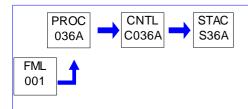
Source ID: 036A Source Name: NO.2 OIL GENERATOR 7.1

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 1.19 to 7.97 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***





SECTION D. Source Level Requirements

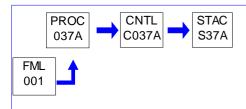
Source ID: 037A Source Name: NO.2 OIL GENERATOR 7.2

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 0.88 to 6.95 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***





SECTION D. Source Level Requirements

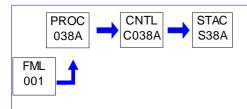
Source ID: 038A Source Name: NO.2 OIL GENERATOR 7.3

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 0.55 to 6.56 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***







SECTION D. Source Level Requirements

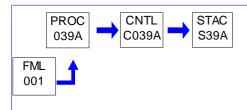
Source ID: 039A Source Name: NO.2 OIL GENERATOR 7.4

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 1.22 to 7.33 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***





SECTION D. Source Level Requirements

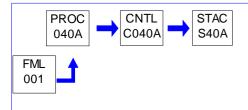
Source ID: 040A Source Name: NO.2 OIL GENERATOR 7.5

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 0.88 to 6.85 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***





SECTION D. Source Level Requirements

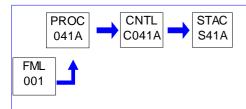
Source ID: 041A Source Name: NO.2 OIL GENERATOR 7.6

Source Capacity/Throughput: 135.000 Gal/HR #2 Oil

Conditions for this source occur in the following groups: 3

4 5

SUBPART ZZZZ



I. RESTRICTIONS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

No additional monitoring requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

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) and/or Section E (Source Group Restrictions).

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 0.93 to 6.31 inches water gage when operating.

VII. ADDITIONAL REQUIREMENTS.

No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***







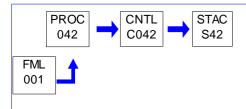
SECTION D. Source Level Requirements

Source ID: 042 Source Name: NO.2 OIL GENERATOR 7.7

Source Capacity/Throughput:

Conditions for this source occur in the following groups: 3

SUBPART ZZZZ



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Nitrogen Oxides (NOx) emissions from the generator shall not exceed 12.35 tons per year calculated on a twelve (12) month rolling sum.

Operation Hours Restriction(s).

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This source may operate for any of the following purposes: emergency power generation, maintenance, routine readiness testing, load shedding, peak shaving, demand response, island mode (off-grid), and any other low load (on-grid) operation.

Throughput Restriction(s).

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The fuel usage for this generator shall not exceed 81,420 gallons per year, calculated on a twelve (12) month rolling sum.

II. TESTING REQUIREMENTS.

No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

III. MONITORING REQUIREMENTS.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall

- (a) monitor the hours of operation using a hourly meter
- (b) monitor the fuel usage daily when in operation
- (c) calculate the NOx emissions monthly as well as twelve (12) month rolling sum

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of:







SECTION D. Source Level Requirements

- (a) fuel usage daily, when in operation
- (b) hours of operation totalled monthly
- (c) the NOx emission calculations monthly and as well as twelve (12) month rolling sum.

V. REPORTING REQUIREMENTS.

No additional reporting requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

VI. WORK PRACTICE REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall ensure that the pressure drop range across the catalyst bed for this engine shall be limited to 0.29 to 4.29 inches water gage when operating.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall use the following emission factor when calculating NOx emissions: 0.30 lbs/gal

The emission factor is based on the manufacturer data and fuel usage limit that was supplied in plan approval 46-0031B.

VII. ADDITIONAL REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

CAIR/CASPR/TR (July 2015)

Specifically, for each ozone season beginning after January 1, 2015, the Department intends to accept the surrender of annual and ozone season TR NOx allowances as a compliance alternative to the surrender of annual and ozone season CAIR NOx allowances if the TR allowances are surrendered for compliance purposes in a manner consistent with the surrender provisions for CAIR allowances set forth in the applicable sections specified in this notice. The Department consulted with staff in the United States Environmental Protection Agency (EPA) Region III Office in developing an alternative allowance surrender approach for compliance with the applicable SIP-approved requirements. To this end, the EPA has confirmed, in writing, that TR NOx allowances may be surrendered as set forth in the applicable regulations in 25 Pa. Code Chapters 129 and 145.

A detailed notice was published in the PA bulletin on April 4, 2015 [45 Pa.B. 1687]

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Source 042 consists of 2 MW Generator firing Number 2 oil.

*** Permit Shield in Effect. ***

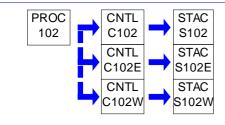




SECTION D. Source Level Requirements

Source ID: 102 Source Name: PILOT PLANT PRIMARY FAC (LEGACY) - BLDG 8

Source Capacity/Throughput:



This source occurs in alternate operation 102-1

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.13]

Processes

No person shall permit the emissions into the outdoor atmosphere of particulate matter from any of the sources in a manner that the concentration of particulate matter in the effuent gas exceeds 0.04 grains per dry standard cubic foot.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The Volatile Organic Compound (VOC) emissions shall not exceed 7.7 tons per year on a 12 month rolling sum calculated monthly.
- (b) The VOC emissions shall be determined using the procedures submitted by the permittee and subsequently approved by the Department.

Control Device Efficiency Restriction(s).

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a. Scrubbers C102E (Labeled as XP-2412) and C102W (Labeled as XP-2411) shall be operated to maintain a pressure drop between 0.01 to 2 inches w.g., and a minimum scrubbing solution flow rate of 3.5 gpm when acid and/or base gas emissions are being generated from the process equipment.
- b. Scrubber C102 (Labeled as XP-2410), used as a backup, shall be operated to maintain a minimum pressure drop range of 0.4 to 3 inches w.g., and a minimum scrubbing solution flow rate of 52 gpm when acid and/or base gas emissions are being generated from the process equipment.
- c. The pH of the scrubbing solution for all scrubbers shall be greater than or equal to 9 when scrubbing acid gases and less than or equal to 5 when scrubbing base gases.
- d. The scrubbers may be bypassed when the reactions and subsequent processes do not generate any acid and/or base gas emissions.

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.

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

a. The scrubbers shall be equipped with devices, as approved by the Department, that monitor, measure, and







SECTION D. Source Level Requirements

indicate/record the following when acid and/or base gases are generated:

- 1. The pressure drop between the inlet air and outlet air
- 2. The pH of the scrubbing solutions
- 3. The flow rate of the scrubbing solutions.
- b. The permittee shall monitor and record the pilot plant and scrubbers' operating hours.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a. The permittee shall keep records of the following when the acid or base gases are being generated:
- 1. the pressure drop across each scrubber
- 2. the pH of the scrubbing solutions
- 3. the scrubbing solution flow rate to each scrubber
- 4. the pilot plant and scrubbers operating hours
- 5. the number(s) of batch reactions that release acid and/or base gases
- b. The permittee shall keep a record of the types and quantities of all wastes disposed at this facility.

V. REPORTING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall submit a quarterly report to the Department in accordance with Condition #020 of Section B, that states the equipment that has been changed during the previous calendar quarter, and what equipment is currently replaced. The quarterly report shall be submitted to the Department within 30 days after the end of the calendar quarter.

VI. WORK PRACTICE REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a. The acid and/or base gases emissions from the source shall be controlled by at least one of the 3 scrubbers.
- b. The permittee shall operate the source and the scrubbers in accordance with the manufacturers' specifications.

VII. ADDITIONAL REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The Source #102, IMS Primary Fac (Legacy) - bldg 8, consists of the following equipment

- (a) reactors
- (b) centrifuges
- (c) dryers filter, vacuum tray
- (d) filter
- (e) portable mills
- (f) glove box
- (g) Rotovap exhausts
- (h) separation column
- (i) scrubbers

The quarterly report shall contain the most current inventory of the above.

*** Permit Shield in Effect. ***

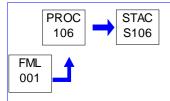




SECTION D. Source Level Requirements

Source ID: 106 Source Name: BLDG 7, 2000 KW ER EGEN

Source Capacity/Throughput:



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall not permit the emission into the outdoor atmosphere of particulate matter from this source in excess of 0.02 gr/dscf, pursuant to 25 Pa. Code § 127.12(a)(5).

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall not permit the emission into the outdoor atmosphere of sulfur oxides from this source in a manner that the concentration of the sulfur oxides, expressed as SO2, in the effluent gas exceeds 500 ppmvd.

Pursuant to 25 Pa.Code § 123.22, the sulfur content of diesel used in the outter zone of the Southeast region should not exceed 0.05%, this assures compliance with 25 Pa.Code § 123.21.

003 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall limit the emissions from this source ID to less than the following:

NOx: 2.83 tpy calculated on a 12-month rolling sum.

CO: 1.70 tpy calculated on a 12-month rolling sum.

VOC: 0.28 tpy calculated on a 12-month rolling sum.

PM10: 0.10 tpy calculated on a 12-month rolling sum.

[Compliance with this condition assures compliance with 40 C.F.R. § 60.4205]

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 C.F.R. Part 80 § 80.510(c)]

- (a). The permittee shall only use Diesel fuel for this source. The diesel fuel shall comply with the following per-gallon standards:
- (1). Cetane index or aromatic content, as follows:
 - (i). A minimum cetane index of 40; or
 - (ii). A maximum aromatic content of 35 volume percent.
- (2). Sulfur Content: 15 ppm maximum.





SECTION D. Source Level Requirements

Operation Hours Restriction(s).

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional Authority for this permit condition is also drived from 40 C.F.R. Part 60 § 60.4211(f)]

- (a) The permittee shall operate the emergency stationary R.I.C.E. according to the requirements in the most recent version of 40 C.F.R. Section 60.4211(f).
- (b) If the permittee does not operate the engine according to the requirements of 40 C.F.R. Section 60.4211(f), the engine will not be considered an emergency engine under 40 C.F.R. Part 60 Subpart IIII and must meet all requirements for non-emergency engines.

Throughput Restriction(s).

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall limit the fuel usage for this source ID to less than 27,600 gallons per year calculated on a 12-month rolling sum.

II. TESTING REQUIREMENTS.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a) The following are applicable to the analysis of commercial fuel oil:
- (1) the fuel oil sample for chemical analysis shall be collected in a manner that provides a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in 25 Pa. Code § 139.4(10) (relating to references);
- (2) test methods and procedures for the determination of sulfur shall be those specified in 25 Pa. Code § 139.4(12)--(15); and
- (3) results shall be reported in accordance with the units specified in 25 Pa. Code § 123.22 (relating to combustion units).
- (b) The requirements in subpart (a), above, shall be waived in the event that a delivery receipt from the supplier, showing the maximum percent sulfur in the fuel, is obtained each time a fuel oil delivery is made.

III. MONITORING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor the fuel usage for this source ID monthly and on a 12-month rolling sum.

The Department approved that fuel usage can be calculated using the operating hours recorded using the non-resettable hour meter and the percent load (kw/usage) generated by the respective engine.

009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor the annual operating hours, including the hours for readiness testing and maintenance, for this source ID, monthly and on a 12-month rolling sum.

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall monitor and calculate the NOx, CO, VOC, PM10 emissions for this source ID monthly and on a 12-month rolling sum.





SECTION D. **Source Level Requirements**

011 [25 Pa. Code §129.203]

Stationary internal combustion engines.

The permittee shall calculate the difference between the actual NOx emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period pursuant to 25 Pa. Code § 129.203 for this Source ID.

The permittee shall calculate the allowable NOx emissions by multiplying the cumulative hours of operations for the unit for the period by the horsepower rating of the unit and by the applicable emission rate set forth in (1) or (2) below.

- (1) For a spark-ignited engine, 3.0 grams of NOx per brake horsepower-hour.
- (2) For a compression ignition stationary internal combustion engine firing diesel fuel or a combination of diesel fuel and natural gas, 2.3 grams of NOx per brake horsepower-hour.

RECORDKEEPING REQUIREMENTS. IV.

012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional Authority for this permit condition is also derived from 40 C.F.R. 60 § 4214]

If the permittee operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 C.F.R. §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in 40 C.F.R. § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (1) through (3):

- (1) The report must contain the following information:
 - (i) Company name and address where the engine is located.
 - (ii) Date of the report and beginning and ending dates of the reporting period.
 - (iii) Engine site rating and model year.
 - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
- (v) Hours operated for the purposes specified in 40 C.F.R. § 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 C.F.R. § 60.4211(f)(2)(ii) and (iii).
- (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 C.F.R. § 60.4211(f)(2)(ii) and (iii).
- (vii) Hours spent for operation for the purposes specified in 40 C.F.R. § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 C.F.R. § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.
- (3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 C.F.R. § 60.4.

013 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- a. The permittee shall keep records of the hours of operation for the engine listed under this source ID monthly and on a 12month rolling sum.
- b. The hours of operation records shall indicate how many hours are spent for emergency operation, non-emergency operation, demand response, maintenance and readiness testing.
- c. The permittee shall keep records of the notification of the emergency situation, the date, start time and end time of the engine if the engine is used for demand response operation.





SECTION D. **Source Level Requirements**

[Compliance with this condition assures compliance with 40 C.F.R. § 60.4214(b)]

014 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep and make available on site, records of the manufacturer's emission data indicating compliance with the emission standards for the emergency engine listed under this Source ID.

The permittee shall keep on site, a copy of the certificate of conformity from the manufacturer for the emergency engine listed under this Source ID.

[Compliance with this condition assures compliance with 40 C.F.R. Section 60.4211(b)(3)].

015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the fuel usage for this source ID monthly and on a 12-month rolling sum.

[25 Pa. Code §127.441]

Operating permit terms and conditions.

For each shipment of diesel fuel received for this generator, the permitte shall keep records of the following information, obtained either by laboratory analysis or from the fuel supplier's certification:

- (a). The sulfur content does not exceed 15 ppm, by weight.
- (b). The cetane index or the aromatic content.
- (c). The maximum sulfur content.

017 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall record the actual and allowable NOx emissions for during the period from May 1st through September 30th each year for this source ID.

#018 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the NOx, CO, VOC, PM10 emissions for this source ID monthly and on a 12-month rolling sum.

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.

#019 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional Authority for this permit condition is derived from 40 C.F.R. § 60.420 and § 60.4211(a)]

If you are an owner or operator and must comply with the emission standards specified in Subpart IIII, you must do the following:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.





SECTION D. Source Level Requirements

020 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 40 C.F.R. Part 60 § 60.4206 and 40 C.F.R. Part 60 § 60.4211(a) and (c).]

The permittee shall operate and maintain this source according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine. In addition, the permittee may only change those settings that are permitted by the manufacturer.

021 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall operate and maintain a non-resettable hour meter at all times.

[Compliance with this condition assures compliance with 40 C.F.R. Part 60 § 60.4209]

022 [25 Pa. Code §127.441]

Operating permit terms and conditions.

- (a). The permittee shall use the following emission factors when calculating emissions based on hours of operation:
 - NOx: 4.35 g/hp-hr
 - CO: 2.61 g/hp-hr
 - -VOC: 0.43 g/hp-hr
 - -PM10: 0.15 g/hp-hr
- (b). The permittee shall use the following emission factors when calculating emissions based on fuel usage:
 - NOx: 0.20 lb/gal
 - CO: 0.12 lb/gal
 - VOC: 0.02 lb/gal
 - -PM10: 0.007 lb/gal

[Compliance with condition (a) above demonstrates compliance with the emission limits in 40 C.F.R. 89 § 89.112 and 25 Pa. Code § 129.204(b)(2)(ii)]

023 [25 Pa. Code §129.204]

Emission accountability.

- (a) The owner or operator of a unit subject to this section shall surrender to the Department one CAIR NOx allowance and one CAIR NOx Ozone Season allowance, as defined in 40 CFR 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.
- (b) If the combined allowable emissions from units subject to this section at a facility from May 1 through September 30 exceed the combined actual emissions from units subject to this section at the facility during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the owner or operator's other facilities.
- (c) By November 1 of each year, an owner or operator of a unit subject to this section shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:
 - (1) The serial number of each NOx allowance surrendered.
 - (2) The calculations used to determine the quantity of NOx allowances required to be surrendered.
- (d) If an owner or operator fails to comply with subsection (e), the owner or operator shall by December 31 surrender three NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by





SECTION D. Source Level Requirements

November 1 of that year.

- (e) The surrender of NOx allowances under subsection (f) does not affect the liability of the owner or operator of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.
- (1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.
 - (2) Each ton of excess emissions is a separate violation.

VII. ADDITIONAL REQUIREMENTS.

024 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional Authority for this permit condition is derived from 40 C.F.R. § 63.6590(c)(1)]

The permittee shall meet the requirements of Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for this engine under Subpart ZZZZ.

025 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This emergency generator is subject to Subpart IIII of the Standards of Performance for New Stationary Sources and shall comply with all applicable requirements of this Subpart. In accordance with 40 C.F.R. Part 60 § 60.4, copies of all requests, reports, applications, submittals, and other communications are required to be submitted to both the EPA and the Department. The EPA copies shall be forwarded to:

Director
Air Protection Division
U.S. EPA, Region III
1650 Arch Street
Philadelphia, PA 19103-2029

026 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This source consists of one (1) 2,000 kw diesel fueled emergency electric generators, manufactured by Caterpillar, model number 3516C with an output rating of 2950 BHP. The generator has a capacity / throughput of 138.0 gallons per hour.

*** Permit Shield in Effect. ***





Group Name:

Group Description: all boilers

Sources included in this group

ID	Name
031	BOILER 7.1
032	BOILER 7.2
033	BOILER 7.3
034	BOILER 7.4

RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95.]

The combined emissions from the four boilers (Boiler 7.1, Boiler 7.2, Boiler 7.3, and Boiler 7.4) shall not exceed:

Particulate matter......2 lbs/hr, 8.3 tons/year Sulfur oxides......62.6 lbs/hr, 157.8 tons/year Nitrogen oxides......36.3 lbs/hr, 49.9 tons/year Carbon monoxide......30.3 lbs/hr, 132.7 tons/year Volatile organic compds.......4.0 lbs/hr, 10.5 tons/year

Note: The lbs/hr averaged on a daily basis Tons/year on a twelve (12) month rolling sum

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.42c]

Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Standard for sulfur dioxide.

The permittee shall not cause to be discharged into the atmosphere from this source any gases that contain SO2 in excess of 0.50 lbs/MMBtu.

[Compliance with this streamlined permit condition assures compliance with 25 Pa. Code Section 123.22(e)(1).]

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.43c]

Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Standard for particulate matter.

The permittee shall not cause to be discharged into the atmosphere from any of the above boilers any gases that exhibit greater than 20% average opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

[Compliance with 25 Pa. Code Section 123.41 - Condition #005 in Section C of this permit, assures compliance with the condition above]

Fuel Restriction(s).

004 [25 Pa. Code §123.22]

Combustion units

No person shall, at any time, offer for sale, deliver for use, exchange in trade or permit the use of commercial fuel oil for use in combustion units in the Southeast Pennsylvania air basin which contains sulfur in excess of 0.3% by weight, pursuant to 25 Pa. Code § 123.22(e)(2).

Beginning July 1, 2016, the maximum sulfur content in commercial fuel oil shall not exceed 0.05% by weight, except as specified in subparagraphs (ii) and (iii) of 25 Pa. Code § 123.22(e)(2).





[Compliance with this streamlined permit condition assures compliance with 40 CFR 60.42c(d).]

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

The permittee shall operate this boiler on natural gas or No. 2 fuel oil only.

Throughput Restriction(s).

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

The combined consumption of No. 2 fuel oil from Boiler 7.1, Boiler 7.2, Boiler 7.3 and Boiler 7.4 shall not exceed 3,988,187 gallons in any 12 consecutive month period.

II. TESTING REQUIREMENTS.

007 [25 Pa. Code §139.16]

Sulfur in fuel oil.

- (a) The following are applicable to tests for the analysis of commercial fuel oil:
- (1) The fuel oil sample for chemical analysis shall be collected in a manner that provides a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in 25 Pa. Code § 139.4(10) (relating to references).
- (2) Tests methods and procedures for the determination of sulfur shall be those specified in 25 Pa. Code § 139.4(12)-(15).
- (3) Results shall be reported in accordance with the units specified in 25 Pa. Code § 123.22 (relating to combustion units).
- (b) The requirements in subpart (a), above, shall be waived in the event that a delivery receipt from the supplier, showing the maximum percent sulfur in the fuel, is obtained each time a fuel oil delivery is made.

[Compliance with this streamlined permit condition assures compliance with 40 CFR 60.44c(h).]

III. MONITORING REQUIREMENTS.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- (1) The permittee shall monitor the following each operating day:
 - (a) The amount and type of fuel used
 - (b) The hours of operation
- (2) The permittee shall calculate PM, SOx, NOx, CO and VOC emissions each operating day to show compliance with the hourly limit set forth in Condition #003.
- (3) The permittee shall calculate PM, SOx, NOx, CO and VOC emissions monthly and 12 month rolling sum to show compliance with the combined tons per year emissions limits set forth in Conditions #003 and #004.







IV. RECORDKEEPING REQUIREMENTS.

009 [25 Pa. Code §123.22]

Combustion units

Beginning July 1, 2016, the permittee shall receive with each fuel oil delivery an electronic or paper record which legibly and conspicuously contains the following information:

- (a) the date of the sale or transfer;
- (b) the name and address of the seller;
- (c) the name and address of the buyer;
- (d) the delivery address;
- (e) the volume of commercial fuel oil purchased; and
- (f) the identification of the sulfur content of the shipment of fuel oil, determined using the sampling and testing methods specified in the testing requirement above, expressed as one of the following statements:
- (1) For a shipment of No. 2 and lighter commercial fuel oil, "The sulfur content of this shipment is 500 ppm or below."

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- (1) The permittee shall keep records of the following, each operating day:
 - (a) The amount and type of fuel used
 - (b) The hours of operation
- (2) The permittee shall keep records of the PM, SOx, NOx, CO and VOC emission calculations showing compliance with the hourly and tons per year limits set forth in Conditions #003 and #004.

Note: tons per year limit on a twelve (12) month rolling basis

011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall obtain from the fuel oil supplier, a delivery receipt that certifies the percentage of sulfur, by weight, is less than or equal to the required percent limit in 25 Pa. Code § 123.22(e)(2), each time a delivery is made.

In the event that a delivery is made, and no receipt is obtained, the permittee shall perform testing in accordance with 25 Pa. Code 139.16 as stated under this Source ID in Section D of the permit.

012 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95.]

Each adjustment or tune-up for the boiler, shall be recorded in a permanently bound log book, or a binder located on-site and/or in an equivalent electronic format, and contain the following:

- (a) The date of the tuning procedure.
- (b) The name of the service company and technician.
- (c) The final operating rate or load.
- (d) The final CO and NOx emission rates.
- (e) The final excess oxygen rate.

V. REPORTING REQUIREMENTS.

013 [25 Pa. Code §139.16]

Sulfur in fuel oil.

Results of the fuel oil sulfur test shall be reported in accordance with the units specified in 25 Pa. Code § 123.22 (relating to combustion units).

014 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.48c]

Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units







Reporting and recordkeeping requirements.

The permittee shall submit the following semi-annual reports to the Administrator of the USEPA, and the Department:

- (a) Calendar Dates covered in the reporting period.
- (b) Records of fuel supplier certification listing the name of the supplier, and a statement that the oil complies with the specifications for the definition of distillate oil in 40 CFR 60.41c. In addition, the fuel oil report shall include a certified statement signed by the permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

VI. WORK PRACTICE REQUIREMENTS.

015 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95.]

- (a) The permittee shall perform an annual adjustment or tune-up on the combustion process. The annual adjustment or tune-up shall consist of, at a minimum, the following:
- (1) Inspection, adjustment, cleaning or replacement of fuel burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer.
- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NOx, and to the extent practicable, minimize the emissions of CO.
- (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.
- (b) The annual adjustment or combustion tune-up shall be made in accordance with EPA document "Combustion Efficiency Optimization Manual for Operators of Oil and Gas-fired Boilers," September 1983 (EPA-340/1-83-023) or equivalent procedures approved by the Department in writing.

[Compliance with this condition assures compliance with 40 C.F.R. § 63.7540]

VII. ADDITIONAL REQUIREMENTS.

016 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.42c]
Subpart Dc - Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units Standard for sulfur dioxide.

The sulfur emission limit, and weight percent sulfur limit apply at all times, including startup, shutdown, and malfunction.

*** Permit Shield in Effect. ***





SECTION E. Source Group Restrictions.

Group Name: 2

Group Description: large boilers Sources included in this group

ID	Name
032	BOILER 7.2
033	BOILER 7.3
034	BOILER 7.4

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

The permittee may not permit the emission into the outdoor atmosphere of particulate matter from any of the above combustion sources in excess of the rate of 0.37 pound per million Btu of heat input.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is derived from 25 Pa. Code Section 129.91-95.]

The following emission limits (averaged daily) shall not exceed:

- (a) NOx, when operating on natural gas 5.7 lbs/hr.
- (b) NOx, when operating on No. 2 fuel oil 10.2 lbs/hr.
- (c) VOC, when operating on natural gas 0.68 lbs/hr.
- (d) VOC, when operating on No. 2 fuel oil 1.1 lbs/hr.

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.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95.]

The permittee shall keep a copy of the annual adjustment or tune up results of the Boiler 7.2, Boiler 7.3, and Boiler 7.4, whose rated capacities are at 56.8 mmbtu/hr.

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.

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

*** Permit Shield in Effect. ***





Group Name:

3

Group Description: generators and firewater pump

Sources included in this group

ID	Name
036A	NO.2 OIL GENERATOR 7.1
037A	NO.2 OIL GENERATOR 7.2
038A	NO.2 OIL GENERATOR 7.3
039A	NO.2 OIL GENERATOR 7.4
040A	NO.2 OIL GENERATOR 7.5
041A	NO.2 OIL GENERATOR 7.6
042	NO.2 OIL GENERATOR 7.7

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 source(s) at any time, in excess of 0.04 grains per dry standard cubic foot, pursuant to 25 Pa. Code § 123.13 (c)(1)(i).

II. TESTING REQUIREMENTS.

002 [25 Pa. Code §139.16]

Sulfur in fuel oil.

- (a) The following are applicable to tests for the analysis of commercial fuel oil:
- (1) The fuel oil sample for chemical analysis shall be collected in a manner that provides a representative sample. Upon the request of a Department official, the person responsible for the operation of the source shall collect the sample employing the procedures and equipment specified in 25 Pa. Code § 139.4(10) (relating to references).
- (2) Tests methods and procedures for the determination of sulfur shall be those specified in 25 Pa. Code § 139.4(12)--(15).
- (3) Results shall be reported in accordance with the units specified in 25 Pa. Code § 123.22 (relating to combustion units).
- (b) The testing requirements in subpart (a), above, shall be waived in the event that a delivery receipt from the supplier, showing the percent sulfur in the fuel is less than 15ppm by weight, is obtained each time a fuel oil delivery is made.

III. MONITORING REQUIREMENTS.

003 [25 Pa. Code §129.203]

Stationary internal combustion engines.

- (a) By October 31 of each year, the owner or operator of the stationary internal combustion engine shall calculate the difference between the actual emissions from the unit during the period from May 1 through September 30 and the allowable emissions for that period.
- (b) The owner or operator shall calculate allowable emissions by multiplying the cumulative hours of operations for the unit for the period by the horsepower rating of the unit and by the applicable emission rate set forth in paragraph (1) or (2).
 - (1) For a spark-ignited engine, 3.0 grams of NOx per brake horsepower-hour.
- (2) For a compression ignition stationary internal combustion engine firing diesel fuel or a combination of diesel fuel and natural gas, 2.3 grams of NOx per brake horsepower-hour.



- (c) Emissions from a stationary internal combustion engine that has been or is replaced by an electric motor may be counted as allowable emissions for purposes of this section and 25 Pa. Code § 129.204, as follows:
- (1) For a replaced spark-ignited engine, 3.0 grams of NOx per brake horsepower-hour of the replacement motor, less 1.5 pounds of NOx per MWH of electricity consumed by the replacement motor.
- (2) For a replaced compression ignition stationary internal combustion engine that fired diesel fuel or a combination of diesel fuel and natural gas, 2.3 grams of NOx per brake horsepower-hour, less 1.5 pounds of NOx per MWH of electricity consumed by the replacement motor.

004 [25 Pa. Code §129.204]

Emission accountability.

The owner or operator shall determine actual emissions in accordance with one of the following:

- (1) If the owner or operator of the unit is required to monitor NOx emissions with a CEMS operated and maintained in accordance with a permit or State or Federal regulation, the CEMS data reported to the Department to comply with the monitoring and reporting requirements of this article shall be used. Any data invalidated under Chapter 139 (relating to sampling and testing) shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.
- (2) If the owner or operator of the unit is not required to monitor NOx emissions with a CEMS, one of the following shall be used to determine actual emissions NOx:
- (i) The 1-year average emission rate calculated from the most recent permit emission limit compliance demonstration test data for NOx.
 - (ii) The maximum hourly allowable NOx emission rate contained in the permit or the higher of the following:
- (A) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of the EPA publication, "AP-42 Compilation of Air Pollution Emission Factors."
- (B) The highest rate determined by use of the emission factor for the unit class contained in the most up-to date version of EPA's "Factor Information Retrieval (FIRE)" data system.
- (iii) CEMS data, if the owner or operator elects to monitor NOx emissions with a CEMS. The owner or operator shall monitor emissions and report the data from the CEMS in accordance with Chapter 139 or Chapter 145 (relating to interstate pollution transport reduction). Any data invalidated under Chapter 139 shall be substituted with data calculated using the potential emission rate for the unit or, if approved by the Department in writing, an alternative amount of emissions that is more representative of actual emissions that occurred during the period of invalid data.
- (iv) An alternate calculation and recordkeeping procedure based upon emissions testing and correlations with operating parameters. The operator of the unit shall demonstrate that the alternate procedure does not underestimate actual emissions throughout the allowable range of operating conditions. In regard to obtaining the Department's approval for an alternate calculation method and recordkeeping procedure for actual emissions, the owner or operator may request an adjustment to the allowable emissions calculations set forth in 25 Pa. Code §§ 129.201--129.203. An allowable emission adjustment may not overestimate a unit's allowable emissions and must be based upon the parameters and procedures proposed in the alternate calculation method for actual emissions. The alternate calculation and recordkeeping procedures must be approved by the Department, in writing, prior to implementation.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of the actual and allowable NOx emissions during the period from May 1st through September 30th each year.





SECTION E. Source Group Restrictions.

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.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95.]

- (a). The permittee shall operate and maintain this generator in accordance with manufacturer's specifications.
- (b). The permittee shall operate and maintain the oxidation catalyst in accordance with the manufacturer's specifications.

007 [25 Pa. Code §127.441]

Operating permit terms and conditions.

This source shall be controlled by an oxidation catalyst.

008 [25 Pa. Code §129.204]

Emission accountability.

- (a) The owner or operator shall surrender to the Department one CAIR NOx allowance and one CAIR NOx Ozone Season allowance, as defined in 40 CFR Sections 96.102 and 96.302 (relating to definitions), for each ton of NOx by which the combined actual emissions exceed the allowable emissions of the units subject to this section at a facility from May 1 through September 30. The surrendered allowances shall be of current year vintage. For the purpose of determining the amount of allowances to surrender, any remaining fraction of a ton equal to or greater than 0.50 ton is deemed to equal 1 ton and any fraction of a ton less than 0.50 ton is deemed to equal zero tons.
- (b) If the combined allowable emissions from May 1 through September 30 exceed the combined actual emissions during the same period, the owner or operator may deduct the difference or any portion of the difference from the amount of actual emissions from units subject to this section at the owner or operator's other facilities.
- (c) By November 1 of each year, an owner or operator shall surrender the required NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:
 - (1) The serial number of each NOx allowance surrendered.
 - (2) The calculations used to determine the quantity of NOx allowances required to be surrendered.
- (d) If an owner or operator fails to comply with paragraph (c), the owner or operator shall by December 31 surrender three NOx allowances of the current or later year vintage for each NOx allowance that was required to be surrendered by November 1 of that year.
- (e) The surrender of NOx allowances under paragraph (d) does not affect the liability of the owner or operator of the unit for any fine, penalty or assessment, or an obligation to comply with any other remedy for the same violation, under the CAA or the act.
- (1) For purposes of determining the number of days of violation, if a facility has excess emissions for the period May 1 through September 30, each day in that period (153 days) constitutes a day in violation unless the owner or operator of the unit demonstrates that a lesser number of days should be considered.
 - (2) Each ton of excess emissions is a separate violation.

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***





Group Name:

Group Description: six (6) diesel generators

Sources included in this group

ID	Name
036A	NO.2 OIL GENERATOR 7.1
037A	NO.2 OIL GENERATOR 7.2
038A	NO.2 OIL GENERATOR 7.3
039A	NO.2 OIL GENERATOR 7.4
040A	NO.2 OIL GENERATOR 7.5
041A	NO.2 OIL GENERATOR 7.6

I. RESTRICTIONS.

Emission Restriction(s).

[25 Pa. Code §127.441] # 001

Operating permit terms and conditions.

[Additional authority for this condition is derived from 25 Pa. Code 129.91-95]

Total emissions in any 12 consecutive month period from all six (6) generators (7.1, 7.2, 7.3, 7.4, 7.5 and 7.6) shall not exceed the following emission limits:

- (a) NOx less than 49.9 tons/year, calculated on a 12-month rolling sum
- (b) VOC 1.17 tons/year
- (c) Particulate matter 3.43 tons/year
- (d) Carbon monoxide 30.15 tons/year
- (e) Sulfur dioxide 11.51 tons/year

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- a) The combined throughput of No.2 fuel oil supplied to the six (6) generators (7.1, 7.2, 7.3, 7.4, 7.5 and 7.6) shall not exceed 191,401 gallons in any 12 consecutive month period.
- b) A flow meter shall be maintained in the fuel supply line to indicate, in gallons, the amount of No. 2 fuel oil supplied to the engine(s). Alternative means to measure fuel use may be used if approved by the Department in writing.

The Department approved that fuel usage can be calculated using the operating hours recorded using the non-resettable hour meter and the percent load (kw/usage) generated by the respective engine.

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 § 127.512]

- (a) The permitee shall only fire No. 2 fuel oil, with a maximum sulfur content of 15ppm (by weight).
- (b) No reclaimed, waste oil, or other materials shall be added to this fuel oil.

Operation Hours Restriction(s).

004 [25 Pa. Code §127.441]

Operating permit terms and conditions.

Each generator may operate for any of the following purposes: emergency power generation, maintenance, routine readiness testing, load shedding, peak shaving, demand response, island mode (off-grid), and any other low load (on-grid) operation.







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.

005 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- (1) The permittee shall monitor daily, when operating
- (a) Date of operation.
- (b) Amount of fuel consumed
- (2) The permittee shall calculate PM, SOx, NOx, CO and VOC emissions monthly and twelve (12) month rolling sum using the emission factors showing compliance with Conditions #003 and #004.

IV. RECORDKEEPING REQUIREMENTS.

006 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

- (1) The permittee shall keep daily records, when in operation
 - (a) Date of operation.
 - (b) Amount of fuel consumed
 - (c) Hours of operation
 - (d) Reason for operating
- (2) The permittee shall keep monthly PM, SOx, NOx, CO and VOC emission calculations as well as twelve (12) month rolling sum.

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.

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

The permittee shall use the emission factors listed below to calculate the emissions

- (a) NOx 0.521 lbs/gal.
- (b) VOC 0.0044 lbs/gal.
- (c) Particulate Matter 0.013 lbs/gal.
- (d) Carbon Monoxide based on the most recenet Department approved and passed stact test results.
- (e) Sulfur Dioxide 0.043 lbs/gal.

008 [25 Pa. Code §127.441]

Operating permit terms and conditions.

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

At no time during the operation of the engines, even during utility voluntary demand reduction (peak shaving), testing, or emergency electric generation, shall the fuel meter be turned off.







009 [25 Pa. Code §127.441]

Operating permit terms and conditions.

[Additional authority for this permit condition is also derived from 25 Pa. Code § 129.91-95]

Ignition timing of the engine shall be inspected, adjusted, and certified, at a minimum, once every three (3) years. Inspections, adjustments and certifications shall be performed by a qualified mechanic and according to the engine manufacturer's procedures.

VII. ADDITIONAL REQUIREMENTS.

010 [25 Pa. Code §127.441]

Operating permit terms and conditions.

CAIR/CASPR/TR (July 2015)

Specifically, for each ozone season beginning after January 1, 2015, the Department intends to accept the surrender of annual and ozone season TR NOx allowances as a compliance alternative to the surrender of annual and ozone season CAIR NOx allowances if the TR allowances are surrendered for compliance purposes in a manner consistent with the surrender provisions for CAIR allowances set forth in the applicable sections specified in this notice. The Department consulted with staff in the United States Environmental Protection Agency (EPA) Region III Office in developing an alternative allowance surrender approach for compliance with the applicable SIP-approved requirements. To this end, the EPA has confirmed, in writing, that TR NOx allowances may be surrendered as set forth in the applicable regulations in 25 Pa. Code Chapters 129 and 145.

A detailed notice was published in the PA bulletin on April 4, 2015 [45 Pa.B. 1687]

011 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The engine output of the generator is rated at approximately 2850 brake horsepower.

*** Permit Shield in Effect. ***





Group Name:

5 Group Description: boilers & generators

Sources included in this group

ID	Name
031	BOILER 7.1
032	BOILER 7.2
033	BOILER 7.3
034	BOILER 7.4
036A	NO.2 OIL GENERATOR 7.1
037A	NO.2 OIL GENERATOR 7.2
038A	NO.2 OIL GENERATOR 7.3
039A	NO.2 OIL GENERATOR 7.4
040A	NO.2 OIL GENERATOR 7.5
041A	NO.2 OIL GENERATOR 7.6

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

For the following sources - Boilers 7.1, 7.2, 7.3 and 7.4, No.2 oil Generators 7.1, 7.2, 7.3, .7.4, 7.5, and 7.6, the combined emission limits are as follows:

- (a) The Particulate Matter (PM) emissions shall not exceed 11.7 tons per year calculated on a twelve (12) month rolling sum.
- (b) The Carbon monoxide (CO) emissions shall not exceed 162.85 tons per year calculated on a twelve (12) month rolling sum.
- (c) The Volatile Organic Compounds (VOCs) emissions shall not exceed 11.67 tons per year calculated on a twelve (12) month rolling sum.
- (d) The Sulfur Oxides (SOx)emissions shall not exceed 169.31 tons per year calculated on a twelve (12) month rolling sum.

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.

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

*** Permit Shield in Effect. ***





SECTION E. Source Group Restrictions.

Group Name: SUBPART ZZZZ
Group Description: all generators
Sources included in this group

ID	Name
036A	NO.2 OIL GENERATOR 7.1
037A	NO.2 OIL GENERATOR 7.2
038A	NO.2 OIL GENERATOR 7.3
039A	NO.2 OIL GENERATOR 7.4
040A	NO.2 OIL GENERATOR 7.5
041A	NO.2 OIL GENERATOR 7.6
042	NO.2 OIL GENERATOR 7.7

I. RESTRICTIONS.

Emission Restriction(s).

001 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6595]

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

When do I have to comply with this subpart?

Compliance with the requirements of 40 C.F.R. Part 63, Subpart ZZZZ must be met by May 3, 2013.

002 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6600]

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

What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of

In accordance with 40 C.F.R. § 63.6606(d), Tables 2c, the permittee shall limit the concentration of CO in the stationary RICE exhaust to 23 ppmvd or less, corrected to 15% oxygen; or reduce CO emissions by 70 percent or more.

003 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6600]

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

What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of In accordance with 40 C.F.R. § 63.6600(d), Table 2b, the permittee shall:

- a. Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test, except for periods of start up, which may not exceed 30 minutes and
- b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F, except for periods of start up, which may not exceed 30 mintues.

Fuel Restriction(s).

004 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6604]

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

What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

[Additional Authority for this permit condition is also derived from 25 Pa. Code § 127.12b and 40 C.F.R. Part 80 § 80.510(b)]

The permittee shall ensure that all diesel fuel complies with the following per-gallon standards:

- 1. Sulfur content less than 15 ppm
- 2. Cetane index or aromatic content, as follows:
 - a. A minimum cetane index of 40; or





b. A maximum aromatic content of 35 volume percent.

[Compliance with this condition assures compliance with 25 Pa. Code § 123.21]

II. TESTING REQUIREMENTS.

005 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6615]

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

When must I conduct subsequent performance tests?

[Additional Authority for this permit condition is also derived from 25 Pa. Code § 127.12b and 40 C.F.R. 63 § 63.6610]

- (a). The permittee shall perform an initial performance test in accordance with 40 C.F.R. 63 Subpart ZZZZ, Table 4 no later than October 30, 2013.
- (b). Subsequent performance testing in accordance with 40 C.F.R. Subpart ZZZZ, Table 3 (Item 4) shall be performed every 8760 operating hours or three (3) years, whichever comes first.

III. MONITORING REQUIREMENTS.

006 [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 requirements?

The permittee shall monitor the following:

- (a). Collecting the catalyst inlet temperature data according to 40 C.F.R. 63 § 63.6625; and
- (b). Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

IV. RECORDKEEPING REQUIREMENTS.

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?

[Additional Authority for this permit condition is also derived from 25 Pa. Code § 127.12b]

The permittee shall maintain records of the following:

- (a). A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status.
- (b). Records of the occurence and duration of each malfunction of the control or monitoring equipment and the corrective action taken.
- (c). Records of the fuel supplier receipts, indicating the sulfur content and the cetane index or aromatic content limit meets the requirements of 40 C.F.R. 80.510(b).
- (d). Records of the maintenance conducted on the engine in order to demonstrate the engine and control device was operated and maintained in accordance with the manufacturer's specifications or the permittee's maintenance plan.
- (e). Records of the performance test and test results.
- (f). Records of the catalyst inlet temperature, and







(g). Records of the pressure drop across the catalyst.

V. REPORTING REQUIREMENTS.

008 [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?

[Additional Authority for this permit condition was also derived from 25 Pa. Code 127.12b and 40 C.F.R. 63, Subpart ZZZZ, Table 7]

- (a). The first semi-annual compliance report shall be completed as part of the Permittee's Title V semi-annual deviation report and shall cover the period from the compliance date through the end of the calendar half (May 3, 2013 through June 30, 2013).
- (1). The report shall contain the description of each malfunction, including the number, duration, and causes of deviations from an emission limit or operating limitation, and the corrective action taken. If no deviations occured during the reporting period, the report must state this.
- (b). Notification of performance tests and their results shall follow the same procedures as PA DEP's stack testing guidelines.

VI. WORK PRACTICE REQUIREMENTS.

009 [40 CFR Part 63 NESHAPS for Source Categories §40 CFR 63.6605]

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

What are my general requirements for complying with this subpart?

The engine must be in compliance with the requirements of Subpart ZZZZ at all times and must operate and maintain the source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

010 [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?

[Additional Authority for this permit condition is also derived from 25 Pa. Code § 127.12b]

- (a). The permittee shall minimize each engine's time spent at idle during startup, and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed thirty (30) minutes.
- (b). The permittee must either install a closed crankhouse ventillation system or install an open crankhouse filtration emission control system on the engine. Manufacturer specified maintenance requirements must be followed or an alternate maintenance program can be proposed and approved by the Administrator.

011 [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?

[Additional authority for this condition is also derived from 40 C.F.R. § 63.6625(f)]

The permittee shall operate and maintain a non-resettable hour meter on this generator.

VII. ADDITIONAL REQUIREMENTS.

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





*** Permit Shield in Effect. ***







SECTION F. Alternative Operation Requirements.

Alternative Operation Name: 102-1

#001 CHANGES FROM NORMAL OPERATION

During this scenario, only emissions of VOCs, including HAPS that are VOCs, will be generated. Only condensers will be used to remove the air contaminants from the exhaust gases during this alternative operating scenario.

Sources included in this Alternative Operation:

ID	Name	Source Type
102	PILOT PLANT PRIMARY FAC (LEGACY) - BLDG 8	Process

I. RESTRICTIONS.

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

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.

001 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall continuously monitor the coolant supply temperature.

IV. RECORDKEEPING REQUIREMENTS.

002 [25 Pa. Code §127.441]

Operating permit terms and conditions.

The permittee shall keep records of:

- (a) the coolant supply temperature
- (b) the preventive inspection and maintenance performed on the chillers

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 operate and maintain this source in accordance with manufacturer's specifications.

VII. ADDITIONAL REQUIREMENTS.

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

*** Permit Shield in Effect. ***





Source Id Source Description

031	BOILER 7.1		
Emission Limit			Pollutant
30.300	Lbs/Hr	aggregate, 4 boilers	CO
132.700	Tons/Yr	aggregate, 4 boilers	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
3.100	Lbs/Hr	when firing natural gas	NOX
5.700	Lbs/Hr	when firing No. 2 fuel oil	NOX
36.300	Lbs/Hr	aggregate, 4 boilers	NOX
49.900	Tons/Yr	aggregate, 4 boilers	NOX
0.500	Lbs/MMBTU		SO2
62.600	Lbs/Hr	aggregate, 4 boilers	SOX
157.800	Tons/Yr	aggregate, 4 boilers	SOX
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.400	Lbs/MMBTU		TSP
2.000	Lbs/Hr	PM, aggregate, 4 boilers	TSP
8.300	Tons/Yr	PM, aggregate, 4 boilers	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.380	Lbs/Hr	when firing natural gas	VOC
0.630	Lbs/Hr	when firing No. 2 fuel oil	VOC
4.000	Lbs/Hr	aggregate, 4 boilers	VOC
10.500	Tons/Yr	aggregate, 4 boilers	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

032 BOILER 7.2

ission Limit			Pollutant
30.300	Lbs/Hr	aggregate, 4 boilers	CO
132.700	Tons/Yr	aggregate, 4 boilers	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	CO
5.700	Lbs/Hr	natural gas	NOX
10.200	Lbs/Hr	No. 2 fuel oil	NOX
36.300	Lbs/Hr	aggregate, 4 boilers	NOX
49.900	Tons/Yr	aggregate, 4 boilers	NOX
0.500	Lbs/MMBTU		SO2
62.600	Lbs/Hr	aggregate, 4 boilers	SOX
157.800	Tons/Yr	aggregate, 4 boilers	SOX
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.370	Lbs/MMBTU		TSP







Source Id	Source Description		
0.000	1 - 41-	DM appropriate Abeilana	TOD
2.000	Lbs/Hr	PM, aggregate, 4 boilers	TSP
8.300	Tons/Yr	PM, aggregate, 4 boilers	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.680	Lbs/Hr	natural gas	VOC
1.100	Lbs/Hr	No. 2 fuel oil	VOC
4.000	Lbs/Hr	aggregate, 4 boilers	VOC
10.500	Tons/Yr	aggregate, 4 boilers	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

033 BOILER 7.3

ission Limit			Pollutant
30.300	Lbs/Hr	aggregate, 4 boilers	СО
132.700	Tons/Yr	aggregate, 4 boilers	CO
	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
5.700	Lbs/Hr	natural gas	NOX
10.200	Lbs/Hr	No. 2 fuel oil	NOX
36.300	Lbs/Hr	aggregate, 4 boilers	NOX
49.900	Tons/Yr	aggregate, 4 boilers	NOX
0.500	Lbs/MMBTU		SO2
62.600	Lbs/Hr	aggregate, 4 boilers	SOX
157.800	Tons/Yr	aggregate, 4 boilers	SOX
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.370	Lbs/MMBTU		TSP
2.000	Lbs/Hr	PM, aggregate, 4 boilers	TSP
8.300	Tons/Yr	PM, aggregate, 4 boilers	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.680	Lbs/Hr	natural gas	VOC
1.100	Lbs/Hr	No. 2 fuel oil	VOC
4.000	Lbs/Hr	aggregate, 4 boilers	VOC
10.500	Tons/Yr	aggregate, 4 boilers	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC





Source Id Source Description

034 BOILER 7.4

034	BOILER 7.4		
Emission Limit			Pollutant
30.300	Lbs/Hr	aggregate, 4 boilers	CO
132.700	Tons/Yr	aggregate, 4 boilers	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
5.700	Lbs/Hr	natural gas	NOX
10.200	Lbs/Hr	No. 2 fuel oil	NOX
36.300	Lbs/Hr	aggregate, 4 boilers	NOX
49.900	Tons/Yr	aggregate, 4 boilers	NOX
0.500	Lbs/MMBTU		SO2
62.600	Lbs/Hr	aggregate, 4 boilers	SOX
157.800	Tons/Yr	aggregate, 4 boilers	SOX
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.370	Lbs/MMBTU		TSP
2.000	Lbs/Hr	PM, aggregate, 4 boilers	TSP
8.300	Tons/Yr	PM, aggregate, 4 boilers	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.680	Lbs/Hr	natural gas	VOC
1.100	Lbs/Hr	No. 2 fuel oil	VOC
4.000	Lbs/Hr	aggregate, 4 boilers	VOC
10.500	Tons/Yr	aggregate, 4 boilers	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

036A NO.2 OIL GENERATOR 7.1

Emission Limit			Pollutant
0.115	Lbs/Gal	Emission Factor	CO
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP







Source Id	Source Description

3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

037A NO.2 OIL GENERATOR 7.2

			-
Emission Limit			Pollutant
0.115	Lbs/Gal	Emission Factor CO	
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP
3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

038A NO.2 OIL GENERATOR 7.3

Emission Limit			Pollutant
0.115	Lbs/Gal	Emission Factor	CO
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX







Source Id	Source Description		
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP
3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

039A NO.2 OIL GENERATOR 7.4

sion Limit			Pollutant
0.115	Lbs/Gal	Emission Factor	CO
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP
3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC





Source Id Source Description

040A NO.2 OIL GENERATOR 7.5

UA	NO.2 OIL GENERATO		
mission Limit			Pollutant
0.115	Lbs/Gal	Emission Factor	CO
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP
3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

041A NO.2 OIL GENERATOR 7.6

mission Limit			Pollutant
0.115	Lbs/Gal	Emission Factor	CO
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
30.150	Tons/Yr	Aggregate 6 electric generators	CO
162.850	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	СО
0.521	Lbs/Gal	Emission Factor	NOX
49.900	Tons/Yr	Aggregate 6 electric generators, calculated on 12-month rolling sum.	NOX
0.043	Lbs/Gal	Emission Factor	SO2
11.510	Tons/Yr	Aggregate 6 electric generators	SO2
169.310	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	SOX
0.013	Lbs/Gal	Emission Factor	TSP
0.040	gr/DRY FT3	particulate matter	TSP
3.430	Tons/Yr	Aggregate 6 electric generators	TSP
11.700	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	TSP





ource ld	Source Description		
0.004	Lbs/Gal	Emission Factor	VOC
1.170	Tons/Yr	Aggregate 6 electric generators	VOC
11.670	Tons/Yr	12 month rolling, combined limit for Boilers 7.1, 7.2, 7.3, 7.4 and No.2 oil generators 7.1, 7.2, 7.3, 7.4, 7.5, 7.6	VOC

042 NO.2 OIL GENERATOR 7.7

Emission Limit			Pollutant
23.000	PPMV	corrected to 15% O2 or 70% removal	CO
0.040	gr/DRY FT3	particulate matter	TSP

102 PILOT PLANT PRIMARY FAC (LEGACY) - BLDG 8

Emission Limit			Pollutant
0.040	gr/DRY FT3		TSP
7.700	Tons/Yr	12 month rolling sum	VOC

106 BLDG 7, 2000 KW ER EGEN

Emission Limit			Pollutant	
1.700	Tons/Yr	calculated on a 12-month rolling sum	CO	
2.830	Tons/Yr	calculated on a 12-month rolling sum	NOX	
0.100	Tons/Yr	calculated on a 12-month rolling sum	PM10	
0.280	Tons/Yr	calculated on a 12-month rolling sum	VOC	

Site Emission Restriction Summary

Emission Limit		Pollutant
24.900 Tons/Yr	Total combined HAPs	Hazardous Air Pollutants
9.900 Tons/Yr	Any individual HAP	Hazardous Air Pollutants
49.900 Tons/Yr	Less than 49.9 tpy calculated on a 12-month rolling sum NOX	

Alternative Operation Emission Restriction Summary





SECTION H. Miscellaneous.

(a) This permit includes the conditions and operating requirements of the following operating permits:

NOx RACT OP 46-00031 OP 46-313-094A OP 46-313-093A OP 46-329-006

OP 46-302-187

(b) The Department has determined that the emissions from the following activities, excluding those indicated as site level requirements, in Section C, of this permit, do not require additional limitations, monitoring, or recordkeeping:

(1)Natural gas pressure regulator vents

(2) Air-conditioning units used for human comfort that do not have applicable requirements under Title V of the Clean Air Act

(3)Natural gas or propane-fired fork lift tracks trucks

(4) Miscellaneous Storage Tanks

008 - 350-Gallon No. 2 Fuel Oil Storage Tank Six (6) 275-Gallon No. 2 Fuel Oil Storage Tank 014 - Three 40,000 Gallon No. 2 Fuel Oil Storage Tank (Bldg 7)

(5) Drug Evaluation Laboratory

(6) Drug Safety Assessment Laboratory (LABHOODS-RFD-Bldg 3)

(7)East & West Laboratories (RFD-Bldg 1)

(8) Hazardous Waste Consolidation Activities

(9) Lab Hoods (exempted by 25 Pa Code Section 127.14 (a)(7))

(10) Firepump - Source 035A

(11) RFD No. 17: Portable vacuum filter dryer (Equipment under Source ID 102)

(12) RFD No. 1195: O'Hara tablet coater and dedicated dust collector

(13) RFD No. 1204: Duct work for an existing dust collector system

(14) RFD No. 1211: Relocation of Mobile Minor Spray Dryer

(15) RFD No. 1388: HEPA minor physical change

(c) The Department has approved the Reporting Schedule below:

1. COMPLIANCE CERTIFICATION

Initial Submission

Due Date Period of Coverage 12/28/2002 2/1/2002 to 11/30/2002 Second Submission 12/28/2003 12/1/2002 to 11/30/2003

(Follow the same schedule until permit is renewed)

2. REPORTING OF DEVIATIONS

Due Date Period of Coverage



*

SECTION H. Miscellaneous.

Initial Submission 7/1/2002 2/1/2002 to 5/30/2002 Second Submission 12/28/2002 6/1/2002 to 11/30/2002 Third Submission 7/1/2003 12/1/2002 to 5/30/2003 Fourth Submission 12/28/2003 6/1/2003 to 11/30/2003 (Follow the same schedule until permit is renewed)

3. ADMINISTRATIVE AMENDMENT

The following concerns in an appeal were addressed:

- (i) Schedule of submission for the "reporting of deviations" and the Compliance Certification
- (ii) Boilers
 - (1) Flow diagrams
 - (2) Monitoring and recordkeeping frequency
 - (3) Change reporting frequency from quarterly to semiannually to comply with the revised 40 CFR 60.48c
- (iii) Pilot Plant Facility Remove corresponding conditions for the dust collectors there are none present in this building
- (iv) Revise monitoring & recordkeeping technique for the coolant/holding reservoir tank located in Building 8.
- (d) ADMINISTRATIVE AMENDMENT/MINOR MODIFICATION APS: 585211 AUTH: 635276

Administrative Amendment application submitted 8/21/2002 to incorporate the Plan Approvals 46-313-093B and 46-313-093C for the Hydrogenation Facility and the Chemical Development Facility respectively.

- (A)The Hydrogenation Facility, Source 104, has the following emissions limitations:
- (1) Volatile Organic Compounds including HAPs: 2,440 pounds/year
- (2) Carbon Monoxide: 39.51 lbs/hr and 428 lbs/yr
- (3) Hydrochloric Acid: 0.974 lbs/hr and 29.22 lbs/yr
- (4) Hydrogen Bromide: 2.16 lbs/hr and 53.97 lbs/yr
- (5) Sulfur Dioxide: 1.07 lbs/hr and 42.73 lbs/yr
- (6) Hydrogen Sulfide: 0.114 lbs/hr and 4.5 lbs/yr
- (7) Chlorine: 0.473 lbs/hr and 4.73 lbs/yr
- (8) Hydrogen Iodide: 0.427 lbs/hr and 17.06 lbs/yr
- (9) Ammonia: 3.41 lbs/hr and 136.28 lbs/yr
- (B) The Chemical Development Facility, Source 105, has the following emissions limitations:
- (1) Hydrochloric acid: 3.65 lbs/hr and 292.4 lbs/yr
- (2) Hydrogen Bromide: 8.10 lbs/hr and 404.8 lbs/yr
- (3) Hydrogen lodide: 1.60 lbs/hr and 128.0 lbs/yr
- (4) Ammonia: 10.22 lbs/hr and 0.82 tons/yr
- (5) Hydrogen Sulfide: 0.43 lbs/hr and 34 lbs/yr
- (6) Chlorine: 1.77 lbs/hr and 35.5 lbs/yr
- (7) Volatile Organic Compounds including HAPs: 24.65 lbs/hr and 8.76 tons/yr
- (8) Sulfur Dioxide: 2.80 lbs/hr and 224.4 lbs/yr
- (C) Plan Approval No PA-46-0031B for the 2MW Emergency Generator (Source ID 042);
- (D) Minor Operating Permit Modification for RFD No. 46-A01-2183 dated May 17, 2004;
- (E) Minor Operating Permit Modification for RFD No. 46-A01-2217 dated May 21, 2005.
- (e) APS: 585211 AUTH: 644605 Renewal of Title V Operating Permit.





SECTION H. Miscellaneous.

- (A) The Compliance Certification & Deviation Reporting Schedule Section C, Condition #016 supersedes those found in Section G(c)(1) and (2).
- (B) CAM conditions were added to Sources 104 for the secondary condensers and Source105 for the scrubber and secondary condenser.
- (C) Fire pump has been added to the insignificant list as the emissions are negligible.
- (f) October 24, 2011, AUTH ID 904851, TVOP Amendment to incorporate PA No. 46-0031C and update of the incignificant source list in Section G, item (b).

August 2014

APS: 585211 AUTH: 1039685

This AUTH was for a Minor Modification to make several technical and administrative changes to the permit. The following changes were made:

- 1. Source ID 102. Name of source was changed from Pilot Plant Fac (Bldg 8 Legacy Sec) to IMS Primary Fac (Legacy) Bldg 8.
 - $a.\ Under\ additional\ requirements, the\ source\ list\ has\ been\ revised.$
- 2. Source ID 103. Name of source was changed from Pharm Sci Fac Bldg 9 to IMS Secondary Fac Bldg 9
 - a. Pressure drop range for the HEPA filters was changed to 0.1 to 3 inches w.g.
 - b. All references to the Glatt filters have been removed.
 - c. Under additional requirements, the source list has been revised.
- 3. Source ID 104. Name of source was changed from Hydrogenation Fac (Bldg 11) to IMS Hydrogenation Fac Bldg 11.
- 4. Source ID 105. Name of source was changed from Chem Development Facility (B-8 Expansion Sec) to IMS Primary Fac (Expansion) Bldg 8.

APS: 585211 AUTH: 1079610

This operating permit was Amended to incorporate the conditions from PA 46-0031E into the Title V Operating Permit.

APS: 585211 AUTH: 1080075

This Operating Permit has been renewed.

Source ID 105 - IMS Primary Fac (Expansion) Bldg 8: has been permanently shut down and removed from the permit. The Department received a letter on 8/28/2015 stating the shutdown.

The renewal incorporates the conditions from PA 46-0031D (Boiler MACT) into the permit as Source ID 030.

RFD No. 4785, approved Dec 2, 2014 incorporated existing knockout pots, condensate receiver, and diaphragm pump into the IMS (Hydrogenation) at Bldg 11. These items were added to Source ID 104 in the permit under additional requirements.

The Fire Pump (Source ID 035A) which is listed as insignificant in Section G, is an emergency diesel-fired unit rated at 192 hp and was installed prior to 1995. The fire pump is subject to all applicable requirements in 40 C.F.R. 63 Subpart ZZZZ. The facility shall keep all applicable records to demonstrate compliance with this Federal Regulation.

CAIR/CASPR/TR (July 2015)

Specifically, for each ozone season beginning after January 1, 2015, the Department intends to accept the surrender of annual and ozone season TR NOx allowances as a compliance alternative to the surrender of annual and ozone season CAIR NOx allowances if the TR allowances are surrendered for compliance purposes in a manner consistent with the surrender provisions for CAIR allowances set forth in the applicable sections specified in this notice. The Department consulted with staff in the United States Environmental Protection Agency (EPA) Region III Office in developing an alternative allowance surrender approach for compliance with the applicable SIP-approved requirements. To this end, the EPA has confirmed, in writing, that TR NOx allowances may be surrendered as set forth in the applicable regulations in 25 Pa. Code Chapters 129 and 145. A detailed notice was published in the PA bulletin on April 4, 2015 [45 Pa.B. 1687]

APS: 585211 AUTH: 1145107







SECTION H. Miscellaneous.

This Modification was to address RACT II. GSK requested a site wide NOx limit of less than 100 tpy calculated on a 12-month rolling sum. By taking this limit, for the purpose of RACT II, GSK will be considered a minor NOx emitting facility and not subject to any further RACT II requirements as stated in 25 Pa. Code 129.96(d).

By taking the NOx limit of less than 100 tpy, GSK had to revise previous established limits in the permit. The following limits were removed or revised:

- Removed the combined NOx emission limit of 229.74 tpy for the four boilers and six electric generators.
- Reduced the combined NOx limit of the six electric generators from 138.14 tpy to less than 100 tpy.
- Reduced the combined througput of No. 2 fuel oil supplied to the six electric generators from 530,400 gallons to 383,570 gallons in any 12 consecutive months.

APS: 585211 AUTH: 1205326

This Minor Modification reduced the minimum pressure drop limit on Source ID 102, Condition No.003b from 5 inches w.g. to 3 inches w.g. GSK is replacing Scrubber XP-2410 pursuant to RFD No. 6563 approved by the Department on September 15, 2017.

APS: 585211 AUTH: 1237383

This minor modification was to change the minimum pressure drop on the scrubber, C102, from 3.0 in w.g. to a range of 0.4 to 3.0 in w.g. The scrubber was replaced pursuant to RFD No. 7119 approved by the Department on June 13, 2018. The pressure drop range reflects the design of the replacement scrubber.

APS: 585211 AUTH: 1247921 January 2019

This amendment incorporated the following:

- Change of Responsible Official from Daniel O'Leary to James Gartshore.
- Source ID and conditions from Plan Approval 46-0031F for Source ID 106 (Bldg 7, 2,000 kW EGEN)
- DEP approved alternate fuel monitoring for Sources 036A-041A and 106. Fuel usage can be calculated using the operating hours recorded using the non-resettable hour meter and the percent load (kW/usage) generated by the respective engine.

APS: 585211 AUTH: 1267026 April 2019

- This modification changed the facility wide HAP status from Major to Minor Area Source. An enforceable HAP emission limit was added to Section C of the permit.
- Due to the change in HAP status from Major to Minor, GSK will opt out of the Major Source Boiler MACT Rule (40 C.F.R. Part 63, Subpart DDDDD) and now becomes subject to Area Source Boiler MACT Rule (40 C.F.R. Part 63, Subpart JJJJJJ).
- Source ID 030 (Boiler MACT #2 Fuel oil & Natural gas) conditions #001 thru #015 referencing Subpart DDDDD have been deleted. All new conditions were added to this Source ID to reflect applicability of Subpart JJJJJJ.

APS: 585211 AUTH: 1320654

This operating permit has been renewed.

Source ID 102 (IMS Primary Facility - Legacy, Building 8) name has been changed to Pilot Plant Primary Facility-Legacy, Building 8.

Source ID 103 (IMS Secondary Facility, Building 9) has been removed from Section D of the permit and is now listed as insignificant source. The operation in building 9 has stopped and all the dust collectors and HEPA filters have been removed with the exception of a dust collector (No.9.3, ID C103C) and a HEPA filter in dispensing.

Source ID 104 name has changed from IMS Hydrogenation Facility, Building 11 to Pilot Plant Hydrogenation Facility, Building 11. Source ID 104 has been removed from Section D of the permit and is now listed as an insignificant source. The emissions are very low and no longer reflect current operations. The PTE for all 8 pollutants are less than 0.5 tpy.

The renewal also incorporates administrative amendment AUTH No. 1365945; the amendment was to incorporate "island mode" on the facility's seven 2,000 kw electric generators and establish new pressure drop ranges for the seven electric generators







SECTION H. Miscellaneous.

(Source ID 036A-041A and 042)

APS: 585211 AUTH: 1532682

The permit has been modified to change the Facility wide NOx limit from 100 tpy to 49.9 tpy to opt out of RACT III requirements. Other changes to the permit are as follows:

- Source Group 1 (All Boilers) in Section E of the permit (Source ID's 031-034); the NOx limit was changed from 91.6 tpy to 49.9 tpy and the No. 2 fuel oil limit was changed from 7,321,000 gallons to 3,988,187 gallons.
- Source Group 4 (Six Diesel Generators) in Section E of the permit (Source ID's 036A-041A): the NOx limit was changed from 100 tpy to 49.9 tpy and the No.2 fuel oil limit was changed from 383,570 gallons to 191,401 gallons.





***** End of Report *****