



COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AIR QUALITY PROGRAM

TITLE V/STATE OPERATING PERMIT

Issue Date: February 13, 2024 Effective Date: February 13, 2024

Expiration Date: February 13, 2029

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: 35-00002

Federal Tax Id - Plant Code: 23-2933578-1

Owner Information Name: PEI POWER LLC Mailing Address: 500 TECHNOLOGY DRIVE, 2ND FLOOR CANONSBURG, PA 15317 Plant Information Plant: PEI POWER CORP/ARCHBALD Location: 35 Lackawanna County 35804 Archbald Borough SIC Code: 4911 Trans. & Utilities - Electric Services Responsible Official Name: DEREK KRAMER Title: CHIEF OPERATING OFFICER Phone: (380) 900 - 2739 Email: dkramer@archaea.energy Permit Contact Person Name: NEVIN EDWARDS Title: AIR PERMITTING MANAGER Phone: (412) 860 - 4550 Email: nedwards@archaea.energy [Signature] MARK J. WEJKSZNER, NORTHEAST REGION AIR PROGRAM MANAGER



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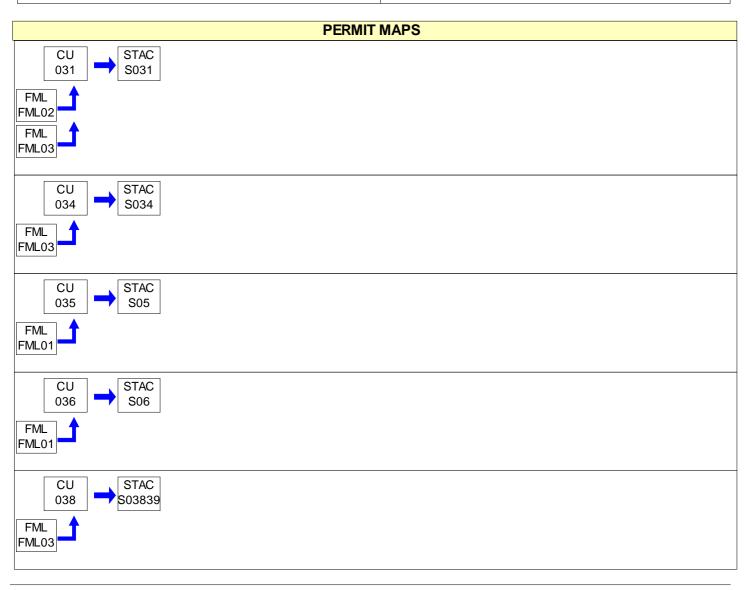
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SECTION A. Site Inventory List

Source I	D Source Name	Capacity/	Throughput	Fuel/Material
031	MAIN BOILER	300.000	MMBTU/HR	
034	NATURAL GAS FIRED TURBINE	450.000	MMBTU/HR	
035	LANDFILL GAS FIRED TURBINE	43.400	MMBTU/HR	
036	LANDFILL GAS FIRED TURBINE	43.400	MMBTU/HR	
038	NO.1 NATURAL GAS AUXILIARY BOILER	9.400	MMBTU/HR	
039	NO.2 NATURAL GAS AUXILIARY BOILER	9.400	MMBTU/HR	
FML01	PROCESSED LANDFILL GAS			
FML02	UNPROCESSED LANDFILL GAS (ULFG)			
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S03839	STACK - NO.1 & NO.2 AUXILIARY BOILERS			
S05	STACK - NO. 5 LANDFILL GAS TURBINE			
S06	STACK - NO. 6 LANDFILL GAS TURBINE			







PERMIT MAPS CU 039 STAC S03839 FML FML03

DEP Auth ID: 1410274 DEP PF ID: 512965





#001 [25 Pa. Code § 121.1]

Definitions

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

#002 [25 Pa. Code § 121.7]

Prohibition of Air Pollution

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

#003 [25 Pa. Code § 127.512(c)(4)]

Property Rights

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

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

Permit Expiration

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

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

Permit Renewal

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

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

Transfer of Ownership or Operational Control

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





the Department.

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

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

Inspection and Entry

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

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

Compliance Requirements

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

#009 [25 Pa. Code § 127.512(c)(2)]

Need to Halt or Reduce Activity Not a Defense

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





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

Duty to Provide Information

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

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

Reopening and Revising the Title V Permit for Cause

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

#012 [25 Pa. Code § 127.543]

Reopening a Title V Permit for Cause by EPA

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

#013 [25 Pa. Code § 127.522(a)]

Operating Permit Application Review by the EPA

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

R3_Air_Apps_and_Notices@epa.gov

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



#014 [25 Pa. Code § 127.541]

Significant Operating Permit Modifications

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

R3_Air_Apps_and_Notices@epa.gov

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

#015 [25 Pa. Code §§ 121.1 & 127.462]

Minor Operating Permit Modifications

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

R3_Air_Apps_and_Notices@epa.gov

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

#016 [25 Pa. Code § 127.450]

Administrative Operating Permit Amendments

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

R3_Air_Apps_and_Notices@epa.gov

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

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

[25 Pa. Code § 127.512(b)] #017

Severability Clause

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

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

Fee Payment

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



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

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

Authorization for De Minimis Emission Increases

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

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

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





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

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

Reactivation of Sources

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

#021 [25 Pa. Code §§ 121.9 & 127.216]

Circumvention

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





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

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

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

Submissions

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

Regional Air Program Manager

PA Department of Environmental Protection

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

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

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

The Title V compliance certification shall be emailed to EPA at R3_APD_Permits@epa.gov.

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

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

Sampling, Testing and Monitoring Procedures

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

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

Recordkeeping Requirements

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



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

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

Reporting Requirements

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

#026 [25 Pa. Code § 127.513]

Compliance Certification

- (a) One year after the date of issuance of the Title V permit, and each year thereafter, unless specified elsewhere in the permit, the permittee shall submit to the Department and EPA Region III a certificate of compliance with the terms and conditions in this permit, for the previous year, including the emission limitations, standards or work practices. This certification shall include:
- (1) The identification of each term or condition of the permit that is the basis of the certification.
- (2) The compliance status.
- (3) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (4) Whether compliance was continuous or intermittent.
- (b) The compliance certification shall be postmarked or hand-delivered no later than thirty days after each anniversary of the date of issuance of this Title V Operating Permit, or on the submittal date specified elsewhere in the permit, to the Department in accordance with the submission requirements specified in Section B, Condition #022 of this permit. The Title V compliance certification shall be emailed to EPA at R3_APD_Permits@epa.gov.



#027 [25 Pa. Code § 127.3]

Operational Flexibility

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

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

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

Risk Management

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





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

#029 [25 Pa. Code § 127.512(e)]

Approved Economic Incentives and Emission Trading Programs

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

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

Permit Shield

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

#031 [25 Pa. Code §135.3]

Reporting

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

#032 [25 Pa. Code §135.4]

Report Format

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



SECTION C. Site Level Requirements

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) No person may 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) Sources and classes of sources other than those identified in paragraphs (1)-(7), 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.

002 [25 Pa. Code §123.2]

Fugitive particulate matter

The permittee may not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in SECTION C - Condition #001 (relating to prohibition of certain fugitive emissions) if such emissions are visible at the point the emissions pass outside the person's property.

003 [25 Pa. Code §123.31]

Limitations

The permittee may 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.

004 [25 Pa. Code §123.41]

Limitations

- (a) A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:
 - (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
 - (2) Equal to or greater than 60% at any time.

005 [25 Pa. Code §123.42]

Exceptions

- (a) The limitations in SECTION C Condition #004 shall not apply to a visible emission in any of the following instances:
 - (1) When the presence of uncombined water is the only reason for failure of the emission to meet the limitations.
- (2) When the emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions.





SECTION C. Site Level Requirements

(3) When the emission results from sources specified in SECTION C - Condition #001.

II. TESTING REQUIREMENTS.

006 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

All sampling, testing and analyses performed in compliance with the requirements of any section of this permit shall be done in accordance with SECTION B - General Tilte V Requirement #023.

007 [25 Pa. Code §139.1]

Sampling facilities.

If requested by the Department, the permittee shall conduct performance (stack) tests in accordance with the applicable provisions of Chapter 139 of the Rules and Regulations of the Department. The permittee will provide adequate sampling ports, safe sampling platforms, and adequate utilities for the performance by the Department of tests on such source(s). The Department will set forth, in the request, the time period in which the facilities shall be provided as well as the specifications for such facilities.

008 [25 Pa. Code §139.2]

Sampling by others.

- (a) Sampling and testing done by persons other than the Department may be accepted by the Department provided that:
- (1) The Department has been given reasonable notice of the sampling and testing and has been given reasonable opportunity to observe and participate in the sampling and testing.
- (2) The sampling and testing is conducted under the direct supervision of persons qualified, by training and experience, to conduct such sampling and testing.
 - (3) Procedures for the sampling and testing are in accord with the provisions of this chapter.
 - (4) The reports of the sampling and testing are accurate and comprehensive.

III. MONITORING REQUIREMENTS.

009 [25 Pa. Code §123.43]

Measuring techniques

- (a) Visible emissions may be measured using either of the following:
 - (1) A device approved by the Department and maintained to provide accurate opacity measurements.
- (2) Observers, trained and qualified to measure plume opacity with the naked eye or with the aid of any devices approved by the Department.

010 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

VISIBLE, FUGITIVE, AND MALODOR EMISSIONS

- (a) The permittee shall conduct weekly inspections of the facility perimeter, during daylight hours when the plant is in operation, to detect visible, fugitive, and malodor emissions as follows:
 - (1) Visible emissions in excess of the limits stated in SECTION C Condition #004.
- (i) Visible emissions may be measured according to the methods specified in SECTION C Condition #009 or alternatively, plant personnel who observe any visible emissions in excess of SECTION C Condition #004 will report the incident of visible emissions to the Department within four (4) hours of each incident and make arrangements for a certified observer to verify the opacity of the emissions.





SECTION C. **Site Level Requirements**

35-00002

- (2) The presence of fugitive emissions visible beyond the boundaries of the facility, as stated in SECTION C Condition #002.
 - (3) The presence of malodor emissions beyond the boundaries of the facility, as stated in SECTION C Condition #003.

IV. RECORDKEEPING REQUIREMENTS.

011 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

All records, reports and analyses results generated in compliance with the requirements of any section of this permit shall be maintained in accordance with SECTION B - General Title V Requirement #024 and #025, and shall be made available to the Department upon written or verbal request at a reasonable time.

012 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) The permittee shall keep a logbook of weekly facility inspections performed. The logbook shall include the name of the company representative performing the inspections, any instances of exceedances of visible emissions limitations, visible fugitive emissions limitations, and malodorous air emission limitations, and the name of the manager informed if a potential exceedance is observed. The permittee shall also record any and all corrective action(s) taken to abate each recorded deviation to prevent future occurrences.
- (b) The records shall be kept for a five (5) year period and shall be made available to the Department upon request.

REPORTING REQUIREMENTS.

[25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) The permittee, within one (1) hour of discovery of an occurrence, shall notify the Department (either by phone at 570-826-2511, facsilime at 570-826-2357, or email to the Regional Air Program Manager) of any malfunction, recordkeeping or reporting error, or other possible non-compliance issue, which reasonably is believed to either result in, or possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulations contained in Article III of the Rules and Regulations of the Department of Environmental Protection.
- (b) A written report shall be submitted to the Department within five (5) working days following the initial notification describing the incident and the corrective actions taken or to be taken. The Department may take enforcement action for any violations of the applicable standards.

014 [25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

- (a) On a semi-annual basis, the permittee shall compile a report of all logged instances of deviation of the fugitive or visible emission limitations that occured and the actions taken in response to them. This report shall be submitted to the Department.
- (b) If no deviations have been logged during the reported period, this report shall be retained at the facility and be made available to the Department upon request.

[25 Pa. Code §127.511] # 015

Monitoring and related recordkeeping and reporting requirements.

The permittee may forward EPA Region 3 the annual Compliance Certification report (as defined in SECTION C - Condition #016 of this existing Title V Operating Permit) electronically, in lieu of a hard copy version, to the email address:

R3_APD_Permits@epa.gov.

Please place the following in the subject line:

TV 35-00002, PEI Power Corporation, Archbald Power Station





SECTION C. Site Level Requirements

016 [25 Pa. Code §127.513]

Compliance certification.

The reporting period for the Certificate of Compliance required by SECTION B - Condition #26 shall be for the previous calendar year, and it shall be submitted within 60 days after the specified period but no later than March 1st.

VI. WORK PRACTICE REQUIREMENTS.

017 [25 Pa. Code §123.1]

Prohibition of certain fugitive emissions

- (a) A person responsible for any source specified in SECTION C Condition #001, shall take all reasonable actions to prevent particulate matter from becoming airborne. These actions shall include, but not be limited to, the following:
- (1) Use, where possible, of water or chemicals for control of dust in the demolition of buildings or structures, construction operations, the grading of roads, or the clearing of land.
- (2) Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts.
 - (3) Paving and maintenance of roadways.
- (4) Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

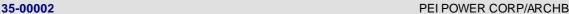
018 [25 Pa. Code §129.14]

Open burning operations

- (a) Air basins. No person may permit the open burning of material in an air basin.
- (b) Exceptions: The requirements of subsection (a) do not apply where the open burning operations result from:
- (1) 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.
 - (2) A fire set for the purpose of instructing personnel in fire fighting, when approved by the Department.
 - (3) A fire set for the prevention and control of disease or pests, when approved by the Department.
- (4) A fire set in conjunction with the production of agricultural commodities in their unmanufactured state on the premises of the farm operation.
- (5) 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 such structure.
 - (6) A fire set solely for recreational or ceremonial purposes.
 - (7) A fire set solely for cooking food.
- (c) Clearing and grubbing wastes. The following is applicable to clearing and grubbing wastes:
 - (1) As used in this subsection the following terms shall have the following meanings:

Air curtain destructor -- A mechanical device which forcefully projects a curtain of air across a pit in which open burning is being conducted so that combustion efficiency is increased and smoke and other particulate matter are contained.

Clearing and grubbing wastes -- Trees, shrubs, and other native vegetation which are cleared from land during or prior to the process of construction. The term does not include demolition wastes and dirt laden roots.





SECTION C. **Site Level Requirements**

- (2) Subsection (a) notwithstanding, clearing and grubbing wastes may be burned in a basin subject to the following requirements:
 - (i) Air curtain destructors shall be used when burning clearing and grubbing wastes.
- (ii) Each proposed use of air curtain destructors shall be reviewed and approved by the Department in writing with respect to equipment arrangement, design and existing environmental conditions prior to commencement of burning. Proposals approved under this subparagraph need not obtain plan approval or operating permits under 25 Pa. Code, Chapter 127 (relating to construction modification, reactivation and operation of sources).
- (iii) Approval for use of an air curtain destructor at one site may be granted for a specified period not to exceed 3 months, but may be extended for additional limited periods upon further approval by the Department.
- (iv) The Department reserves the right to rescind approval granted if a determination by the Department indicates that an air pollution problem exists.
- (3) During an air pollution episode, open burning is limited by 25 Pa. Code, Chapter 137 (relating to air pollution episodes) and shall cease as specified in such chapter.

VII. ADDITIONAL REQUIREMENTS.

019 [25 Pa. Code §127.1]

Purpose.

No person may permit air pollution as that term is defined in the Clean Air Act.

[25 Pa. Code §127.511]

Monitoring and related recordkeeping and reporting requirements.

The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned sources and/or any associated air cleaning devices and shall allow the Department to have access at any time to said sources and associated air cleaning devices 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.

[25 Pa. Code §127.531]

Special conditions related to acid rain.

Source ID 034 at the Archbald Power Station is the only affected unit subject to Phase II Acid Rain requirements under Title IV of the Clean Air Act (as Amended 1990) and 25 Pa. Code Section 127.531.

This source shall comply with all applicable provisions of that Title, to include the following:

- (a) 40 CFR Part 72, relating to Permit Regulation,
- (b) 40 CFR Part 73, relating to Sulfur Dioxide Allowance System,
- (c) 40 CFR Part 75, relating to Continuous Emission Monitoring,
- (d) 40 CFR Part 76, relating to Nitrogen Oxides Emission Reduction Program, and,
- (e) 40 CFR Part 77, relating to Excess Emissions.

A copy of the Phase II Acid Rain Permit for Source ID 034, which is incorporated as part of the Title V Permit, is attached.

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).

COMPLIANCE SCHEDULE.

No compliance milestones exist.

*** Permit Shield In Effect ***

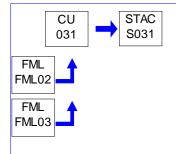




Source ID: 031 Source Name: MAIN BOILER

Source Capacity/Throughput: 300.000 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 03



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

- (a) The permittee may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:
 - (1) 0.147 pounds per MMBTUs of heat input;
 - (2) The above rate determined by the following formula:

 $A = 3.6E^{(-0.56)}$

where:

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

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §123.22]

Combustion units

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from a combustion unit in excess of the rate of 4 pounds per million BTU of heat input over a 1-hour period.

003 [25 Pa. Code §127.512]

Operating permit terms and conditions.

(a) The main boiler is subject to the following air contaminant emission limitations:

Pollutant	Allowable Lb/MMBTU heat input During Normal Operation	Pounds Per Hour at any Time	
Nitrogen Oxides (NOx)	0.06	18.0	
Carbon Monoxides (CO)	0.15	45.0	

(b) Whenever the boiler is in the start up/shut down period or during partial operating load condition, the allowable pounds per million BTU heat input emission limits listed in paragraph (a) above do not apply. The permittee shall meet only the



pounds per hour emission limits of the pollutants as listed in paragragh (a) above during these periods. The start up / shut down period and partial operating load conditions of the boiler are determined below in paragraph (c).

(c) The start up/ shut down period is when the heat input to the boiler is less than 70 million BTU per hour. The partial operating condition is when the plant is generating less than 5 MW power. Above 70 million BTU heat input per hour to the boiler and generating above 5 MW power will be considered as a normal operation and the pound per million BTU heat input limit as listed above in paragraph (a) shall apply for the pollutant.

004 [25 Pa. Code §127.512]

Operating permit terms and conditions.

Total NOx and CO emissions from the boiler shall not exceed the following emission limit on a 12-month rolling sum:

Pollutant	Total Annual Emissions (tons per year)	
(a) Nitrogen Oxides (NOx)	79	
(b) Carbon Monoxides (CO)	85	

The permittee must cease operation or obtain prior approval under applicable regulations if the NOx or CO emissions are to exceed the total 12- month rolling emissions limit in tons per year.

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.

005 [25 Pa. Code §123.51]

Monitoring requirements

- (a) This section applies to combustion units with a rated heat input of 250 million BTUs per hour or greater and with an annual average capacity factor of greater than 30%.
- (b) Sources subject to this section shall install, operate and maintain continuous nitrogen oxides monitoring systems and other monitoring systems to convert data to required reporting units in compliance with Chapter 139, Subchapter C (relating to requirements for continuous in-stack monitoring for statutory sources).
- (c) Sources subject to this section shall submit results on a regular schedule and in a format acceptable to the Department and in compliance with Chapter 139, Subchapter C.
- (d) Continuous nitrogen oxides monitoring systems installed under the requirements of this section shall meet the minimum data availability requirements in Chapter 139, Subchapter C.

006 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee shall install and operate continuous source monitoring systems (CEMS) to monitor and record the fuel consumption rate and fuel mixture percentage (%) in the boiler. The heat content of the landfill gas shall be determined on a monthly basis.

007 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The permittee shall install and operate a continuous source monitoring system (CEMS) to monitor and record nitrogen oxide and carbon monoxide emissions from this boiler.
- (b) The above mentioned system must be installed, operated, maintained and approved by the Department within 180 days of the start of operation in accordance with the quality assurance, record keeping and reporting requirements of Chapter 139



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SECTION D. Source Level Requirements

of the Pa. Department of Environmental Protection's Rules and Regulations and the Department's Continuous Source Monitoring Manual. A proposal containing information as listed in the Phase I section of the Department's Continuous Source Monitoring Manual for CEMS must be submitted within 30 days of the start of operation.

IV. RECORDKEEPING REQUIREMENTS.

008 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee shall maintain the following records:

- (a) The records shall provide sufficient data to clearly demonstrate that the boiler meet the requirements of Conditions #003, #004 & # 006 above.
- (b) All records shall be maintained for at least five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

009 [25 Pa. Code §127.512]

Operating permit terms and conditions.

All CEMS reports shall be submitted to the Department within thirty (30) days after each quarter but no later than the time frame established in the Department's latest Continuous Source Monitoring Manual. The Department reserves the right to require the report submission in computer storage media with a format acceptable to the Department.

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.

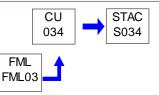
No additional requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements) and/or Section E (Source Group Restrictions).

*** Permit Shield in Effect. ***



Source ID: 034 Source Name: NATURAL GAS FIRED TURBINE

Source Capacity/Throughput: 450.000 MMBTU/HR



I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.41]

Limitations

- (a) The permittee may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:
 - (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
 - (2) Equal to or greater than 60% at any time.
- # 002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.332] Subpart GG Standards of Performance for Stationary Gas Turbines Standard for nitrogen oxides.
- (a) On and after the date of the performance test required by 60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.
- (1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.0075 \{14.4/Y\} + F$$

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NOX emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

- F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.
- (2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

$$STD = 0.015 \{14.4/Y\} + F$$

where:

STD = allowable ISO corrected (if required as given in §60.335(b)(1)) NOX emission concentration (percent by volume at 15 percent oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4





kilojoules per watt hour.

- F = NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.
- (3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NOX allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.
- (4) If the owner or operator elects to apply a NOX emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under §60.8 as follows:

F (NOX percent by volume)
0 0

Where: N = the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by §60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

- (b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.
- (c) Not Applicable
- (d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in §60.332(b) shall comply with paragraph (a)(2) of this section.
- (e) Not Applicable
- (f) Stationary gas turbines using water or steam injection for control of NOX emissions are exempt from paragraph (a) when ice fog is deemed a traffic hazard by the owner or operator of the gas turbine.
- (g) (h) Not Applicable
- (i) Exemptions from the requirements of paragraph (a) of this section will be granted on a case-by-case basis as determined by the Administrator in specific geographical areas where mandatory water restrictions are required by governmental agencies because of drought conditions. These exemptions will be allowed only while the mandatory water restrictions are in effect.
- (j) Not Applicable
- (k) Stationary gas turbines with a heat input greater than or equal to 10.7 gigajoules per hour (10 million Btu/hour) when fired with natural gas are exempt from paragraph (a)(2) of this section when being fired with an emergency fuel.
- (I) Not Applicable





003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.333]

Subpart GG - Standards of Performance for Stationary Gas Turbines

Standard for sulfur dioxide.

On and after the date on which the performance test required to be conducted by 60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

- (a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.
- (b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight (8000) ppmv.

Throughput Restriction(s).

004 [25 Pa. Code §127.512]

Operating permit terms and conditions.

This turbine shall have a fuel usage cap of 1298 MMCF of natural gas as defined in amended 40 CFR 60.331, Subsection U based upon a 12-month rolling sum.

II. TESTING REQUIREMENTS.

005 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.335] Subpart GG - Standards of Performance for Stationary Gas Turbines Test methods and procedures.

- (a) The owner or operator shall conduct the performance tests required in §60.8, using either
 - (1) EPA Method 20,
- (2) ASTM D6522-00 (incorporated by reference, see §60.17), or,
- (3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NOX and diluent concentration.
- (4) Sampling traverse points are to be selected following Method 20 or Method 1, (non-particulate procedures) and sampled for equal time intervals. The sampling shall be performed with a traversing single-hole probe or, if feasible, with a stationary multi-hole probe that samples each of the points sequentially. Alternatively, a multi-hole probe designed and documented to sample equal volumes from each hole may be used to sample simultaneously at the required points.
- (5) Notwithstanding paragraph (a)(4) of this section, the owner or operator may test at few points than are specified in Method 1 or Method 20 if the following conditions are met:
 - (i) You may perform a stratification test for NOX and diluent pursuant to
 - (A) [Reserved]
 - (B) The procedures specified in section 6.5.6.1(a) through (e) appendix A to part 75 of this chapter.
- (ii) Once the stratification sampling is completed, the owner or operator may use the following alternative sample point selection criteria for the performance test:
- (A) If each of the individual traverse point NOX concentrations, normalized to 15 percent O2, is within ±10 percent of the mean normalized concentration for all traverse points, then you may use 3 points (located either 16.7, 50.0, and 83.3 percent of the way across the stack or duct, or, for circular stacks or ducts greater than 2.4 meters (7.8 feet) in diameter, at 0.4, 1.2, and 2.0 meters from the wall). The 3 points shall be located along the measurement line that exhibited the highest average normalized NOX concentration during the stratification test; or,
- (B) If each of the individual traverse point NOX concentrations, normalized to 15 percent O2, is within ±5 percent of the mean normalized concentration for all traverse points, then you may sample at a single point, located at least 1 meter from



the stack wall or at the stack centroid.

- (6) Other acceptable alternative reference methods and procedures are given in paragraph (c) of this section.
- (b) The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 as follows:
- (1) For each run of the performance test, the mean nitrogen oxides emission concentration (NOxo) corrected to 15 percent O2 shall be corrected to ISO standard conditions using the following equation. Notwithstanding this requirement, use of the ISO correction equation is optional for: Lean premix stationary combustion turbines; units used in association with heat recovery steam generators (HRSG) equipped with duct burners; and units equipped with add-on emission control devices:

NOx = (NOxo)(Pr/Po)0.5 e19 (Ho-0.00633) (288°K/Ta)1.53

Where:

NOx = emission concentration of NOx at 15 percent O2 and ISO standard ambient conditions, ppm by volume, dry basis,

NOxo = mean observed NOx concentration, ppm by volume, dry basis, at 15 percent O2, Pr = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg, Po = observed combustor inlet absolute pressure at test, mm Hg, Ho = observed humidity of ambient air, g H2O/g air, e = transcendental constant, 2.718, and Ta = ambient temperature, °K.

- (2) The 3-run performance test required by §60.8 must be performed within ±5 percent at 30, 50, 75, and 90-to-100 percent of peak load or at four evenly-spaced load points in the normal operating range of the gas turbine, including the minimum point in the operating range and 90-to-100 percent of peak load, or at the highest achievable load point if 90-to-100 percent of peak load cannot be physically achieved in practice. If the turbine combusts both oil and gas as primary or backup fuels, separate performance testing is required for each fuel. Notwithstanding these requirements, performance testing is not required for any emergency fuel (as defined in §60.331).
 - (3) Not Applicable
- (4) If water or steam injection is used to control NOX with no additional post-combustion NOx control and the owner or operator chooses to monitor the steam or water to fuel ratio in accordance with §60.334(a), then that monitoring system must be operated concurrently with each EPA Method 20, ASTM D6522-00 (incorporated by reference, see §60.17), or EPA Method 7E run and shall be used to determine the fuel consumption and the steam or water to fuel ratio necessary to comply with the applicable §60.332 NOx emission limit.
- (5) If the owner operator elects to claim an emission allowance for fuel bound nitrogen as described in §60.332, then concurrently with each reference method run, a representative sample of the fuel used shall be collected and analyzed, following the applicable procedures described in §60.335(b)(9). These data shall be used to determine the maximum fuel nitrogen content for which the established water (or steam) to fuel ratio will be valid.
- (6) If the owner or operator elects to install a CEMS, the performance evaluation of the CEMS may either be conducted separately (as described in paragraph (b)(7) of this section) or as part of the initial performance test of the affected unit.
- (7) If the owner or operator elects to install and certify a NOx CEMS under §60.334(e), then the initial performance test required under §60.8 may be done in the following alternative manner:
- (i) Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.
- (ii) Use the test data both to demonstrate compliance with the applicable NOX emission limit under §60.332 and to provide the required reference method data for the RATA of the CEMS described under §60.334(b).
 - (iii) The requirement to test at three additional load levels is waived.
 - (8) If the owner or operator is required under §60.334(f) to monitor combustion parameters or parameters indicative of





proper operation of NOx emission controls, the appropriate parameters shall be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in §60.334(g).

- (9) To determine the fuel bound nitrogen content of fuel being fired (if an emission allowance is claimed for fuel bound nitrogen), the owner or operator may use equipment and procedures meeting the requirements of:
 - (i) Not Applicable
- (ii) For gaseous fuels, shall use analytical methods and procedures that are accurate to within 5 percent of the instrument range and are approved by the Administrator.
- (10) If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using:
 - (i) Not Applicable
- (ii) For gaseous fuels, ASTM D1072-80, 90 (Reapproved 1994); D3246-81, 92, 96; D4468-85 (Reapproved 2000); or D6667-01 (all of which are incorporated by reference, see §60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the prior approval of the Administrator.
- (11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
- (c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) Instead of using the equation in paragraph (b)(1) of this section, manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in §60.8 to ISO standard day conditions.

III. MONITORING REQUIREMENTS.

006 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The turbine shall be equipped with a Continuous Air Contaminants Emission Monitoring System (CEMS) for nitrogen oxides. The monitoring shall meet applicable requirements of the Department. The continuous emission monitoring system for nitrogen oxides must be approved by the Department and installed, operated and maintained in accordance with the quality assurance, recordkeeping and reporting requirements of Chapter 139 of the Department of Environmental Protection's Rules and Regulations and the Department's Continuous Source Monitoring Manual.

007 [25 Pa. Code §145.213.]

Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.170-96.175.

- (a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).
- (b) Not Applicable
- (c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.





- (d) The owner or operator of a CAIR NOx unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAIR NOx unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAIR NOx unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.
- (e) The owner or operator of a CAIR NOx unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

008 [25 Pa. Code §145.223.]

Supplemental monitoring, recordkeeping and reporting requirements for gross electrical output and useful thermal energy for units subject to 40 CFR 96.370--96.375.

- (a) By January 1, 2009, or by the date of commencing commercial operation, whichever is later, the owner or operator of the CAIR NOx ozone season unit shall install, calibrate, maintain and operate a wattmeter, measure gross electrical output in megawatt-hours on a continuous basis and record the output of the wattmeter. If a generator is served by two or more units, the information to determine the heat input of each unit for that control period shall also be recorded, so as to allow each unit's share of the gross electrical output to be determined. If heat input data are used, the owner or operator shall comply with the applicable provisions of 40 CFR Part 75 (relating to continuous emission monitoring).
- (b) Not Applicable
- (c) Beginning with 2009, the designated representative of the unit shall submit to the Department an annual report showing monthly gross electrical output and monthly useful thermal energy from the unit. The report is due by January 31 for the preceding calendar year.
- (d) The owner or operator of a CAIR NOx ozone season unit shall maintain onsite the monitoring plan detailing the monitoring system and maintenance of the monitoring system, including quality assurance activities. The owner or operator of a CAIR NOx ozone season unit shall retain the monitoring plan for at least 5 years from the date that it is replaced by a new or revised monitoring plan. The owner or operator of a CAIR NOx ozone season unit shall provide the Department with a written copy of the monitoring plan by January 1, 2009, and thereafter within 3 calendar months of making updates to the plan.
- (e) The owner or operator of a CAIR NOx ozone season unit shall retain records for at least 5 years from the date the record is created or the data collected as required by subsections (a) and (b), and the reports submitted to the Department and the EPA in accordance with subsections (c) and (d).

009 [25 Pa. Code §145.6]

Standard requirements.

- (1) The owners and operators and the NOx authorized account representative of each NOx budget source and each NOx budget unit at the source shall comply with the four monitoring requirements of §§ 145.70-145.76 (relating to recordkeeping and recording requirements).
- (2) The emissions measurements recorded and reported in accordance with §§ 145.70 145.76 shall be used to determine compliance by the unit with the NOx budget emissions limitation under Subsection 145.6(c).

010 [25 Pa. Code §145.74.]

Recordkeeping and reporting.

The owner or operator of a unit that is not subject to an acid rain emissions limitation shall comply with requirements of 40 CFR 75.62, except that the monitoring plan is only required to include the information required by 40 CFR Part 75, Subpart H.

011 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.334]

Subpart GG - Standards of Performance for Stationary Gas Turbines

Monitoring of operations.

(a) Except as provided in paragraph (b) of this section, the owner or operator of any stationary gas turbine subject to the





provisions of this subpart and using water or steam injection to control NOx emissions shall install, calibrate, maintain and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water or steam to fuel being fired in the turbine.

- (b) The owner or operator of any stationary gas turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and which uses water or steam injection to control NOx emissions may, as an alternative to operating the continuous monitoring system described in paragraph (a) of this section, install, certify, maintain, operate, and quality-assure a continuous emission monitoring system (CEMS) consisting of NOx and O2 monitors. As an alternative, a CO2 monitor may be used to adjust the measured NOx concentrations to 15 percent O2 by either converting the CO2 hourly averages to equivalent O2 concentrations using Equation F-14a or F-14b in appendix F to part 75 of this chapter and making the adjustments to 15 percent O2, or by using the CO2 readings directly to make the adjustments, as described in Method 20. If the option to use a CEMS is chosen, the CEMS shall be installed, certified, maintained and operated as follows:
- (1) Each CEMS must be installed and certified according to PS 2 and 3 (for diluent) of 40 CFR part 60, appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Appendix F, Procedure 1 is not required. The relative accuracy test audit (RATA) of the NOx and diluent monitors may be performed individually or on a combined basis, i.e., the relative accuracy tests of the CEMS may be performed either:
 - (i) On a ppm basis (for NOx) and a percent O2 basis for oxygen; or
 - (ii) On a ppm at 15 percent O2 basis; or
- (iii) On a ppm basis (for NOx) and a percent CO2 basis (for a CO2 monitor that uses the procedures in Method 20 to correct the NOx data to 15 percent O2).
- (2) As specified in §60.13(e)(2), during each full unit operating hour, each monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required to validate the hour.
- (3) For purposes of identifying excess emissions, CEMS data must be reduced to hourly averages as specified in §60.13(h).
- (i) For each unit operating hour in which a valid hourly average, as described in paragraph (b)(2) of this section, is obtained for both NOX and diluent, the data acquisition and handling system must calculate and record the hourly NOx emissions in the units of the applicable NOX emission standard under §60.332(a), i.e., percent NOx by volume, dry basis, corrected to 15 percent O2 and International Organization for Standardization (ISO) standard conditions (if required as given in §60.335(b)(1)). For any hour in which the hourly average O2 concentration exceeds 19.0 percent O2, a diluent cap value of 19.0 percent O2 may be used in the emission calculations.
- (ii) A worst case ISO correction factor may be calculated and applied using historical ambient data. For the purpose of this calculation, substitute the maximum humidity of ambient air (Ho), minimum ambient temperature (Ta), and minimum combustor inlet absolute pressure (Po) into the ISO correction equation.
- (iii) If the owner or operator has installed a NOx CEMS to meet the requirements of part 75 of this chapter, and is continuing to meet the ongoing requirements of part 75 of this chapter, the CEMS may be used to meet the requirements of this section, except that the missing data substitution methodology provided for at 40 CFR part 75, subpart D, is not required for purposes of identifying excess emissions. Instead, periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance report required in §60.7(c).
- (c) (f) Not Applicable
- (g) The steam or water to fuel ratio or other parameters that are continuously monitored as described in paragraphs (a), (d) or (f) of this section shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The owner or operator may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The owner or operator shall develop and keep on-site a parameter monitoring plan which explains the procedures used to document proper operation of the NOX emission controls. The plan shall include the parameter(s)





monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s). Any supplemental data such as engineering analyses, design specifications, manufacturer's recommendations and other relevant information shall be included in the monitoring plan. For affected units that are also subject to part 75 of this chapter and that use the low mass emissions methodology in §75.19 of this chapter or the NOX emission measurement methodology in appendix E to part 75, the owner or operator may meet the requirements of this paragraph by developing and keeping on-site (or at a central location for unmanned facilities) a quality-assurance plan, as described in §75.19 (e)(5) or in section 2.3 of appendix E and section 1.3.6 of appendix B to part 75 of this chapter.

- (h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of this section. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds may be used; and,
- (2) Shall monitor the nitrogen content of the fuel combusted in the turbine, if the owner or operator claims an allowance for fuel bound nitrogen (i.e., if an F-value greater than zero is being or will be used by the owner or operator to calculate STD in §60.332). The nitrogen content of the fuel shall be determined using methods described in §60.335(b)(9) or an approved alternative.
- (3) Notwithstanding the provisions of paragraph (h)(1) of this section, the owner or operator may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine, if the gaseous fuel is demonstrated to meet the definition of natural gas in §60.331(u), regardless of whether an existing custom schedule approved by the administrator for subpart GG requires such monitoring. The owner or operator shall use one of the following sources of information to make the required demonstration:
- (i) The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or,
- (ii) Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of appendix D to part 75 of this chapter is required.
- (4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.
- (i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
 - (1) Not Applicable
- (2) Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of this section, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day.
 - (3) Not Applicable
- (j) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
 - (1) Nitrogen oxides.





- (i) For turbines using water or steam to fuel ratio monitoring:
- (A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.332, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.
- (B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.
- (C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
- (ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.
- (A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value, and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
- (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
 - (iii) For turbines using NOX and diluent CEMS:
- (A) An hour of excess emissions shall be any unit operating hour in which the 4-hour rolling average NOX concentration exceeds the applicable emission limit in §60.332(a)(1) or (2). For the purposes of this subpart, a "4-hour rolling average NOx concentration" is the arithmetic average of the average NOx concentration measured by the CEMS for a given hour (corrected to 15 percent O2 and, if required under §60.335(b)(1), to ISO standard conditions) and the three unit operating hour average NOx concentrations immediately preceding that unit operating hour.
- (B) A period of monitor downtime shall be any unit operating hour in which sufficient data are not obtained to validate the hour, for either NOX concentration or diluent (or both).
- (C) Each report shall include the ambient conditions (temperature, pressure, and humidity) at the time of the excess emission period and (if the owner or operator has claimed an emission allowance for fuel bound nitrogen) the nitrogen content of the fuel during the period of excess emissions. You do not have to report ambient conditions if you opt to use the worst case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
- (iv) For turbines required under paragraph (f) of this section to monitor combustion parameters or parameters that document proper operation of the NOX emission controls:
- (A) An excess emission shall be a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
- (B) A period of monitor downtime shall be a unit operating hour in which any of the required parametric data are either not recorded or are invalid.
- (2) Sulfur dioxide. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.





- (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the as-delivered sampling option.
- (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours, and ends on the date and hour of the next valid sample.
- (5) All reports required under §60.7(c) shall be postmarked by the 30th day following the end of each calendar quarter.

012 [40 CFR Part 75 Continuous Emission Monitoring §40 CFR 75.14]

Subpart B--Monitoring Provisions

Specific provisions for monitoring opacity.

To demonstrate compliance with NOx emission limits, the permittee shall operate a Department-approved Continuous Emissions Monitoring System (CEMS) that shall record the emission of Nitrogen Oxides (expressed as NOx) from Source #034.

Hourly average emission rates shall be computed using at least one data point in each 15 minute quadrant of an hour.

RECORDKEEPING REQUIREMENTS.

013 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The nitrogen oxides emissions shall be monitored and recorded continuously to show compliance with the emission limits specified in the application. Recordkeeping and reporting procedures must be in accordance with the requirements of the continuous source monitoring manual.

[25 Pa. Code §145.6]

Standard requirements.

Unless otherwise provided, the owners and operators of the NOx budget source and each NOx budget unit at the source shall maintain at a central location and provided upon request by the Department or the NOx budget administrator all documents required under § 145.6(d) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of the 5 years, in writing by the Department or the Administrator.

REPORTING REQUIREMENTS.

015 [25 Pa. Code §127.512]

Operating permit terms and conditions.

All CEMS reports shall be submitted to the Department within thirty (30) days after each quarter but no later than the time frame established in the Department's latest Continuous Source Monitoring Manual. The Department reserves the right to require the report submission in computer storage media with a format acceptable to the Department.

016 [25 Pa. Code §145.30.]

Compliance certification report.

For each control period in which one or more NOx budget units at a source are subject to the NOx budget emissions limitation, the NOx authorized account representative of the source shall submit to the Department and the NOx Budget Administrator by November 30 of that year, a compliance certification report for the source covering all of the units.

017 [25 Pa. Code §145.74.]

Recordkeeping and reporting.

- (a) The authorized account representative shall submit to the Department and to the NOx Budget Administrator a quarterly emissions report in accordance with the requirements of § 145.74(d).
- (b) The NOx authorized account representative shall submit to the Department and the NOx Budget Administrator a compliance certification in support of each quarterly report required under § 145.74(d) based on reasonable inquiry of those





persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored.

018 [25 Pa. Code §145.74.]

Recordkeeping and reporting.

The NOx authorized account representative shall submit an application to the Department within 45 days after completing all initial certification or recertification tests required under § 145.71 (relating to initial certification and recertification procedures) including the information required under 40 CFR Part 75, Subpart H.

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.

019 [25 Pa. Code §145.1]

Purpose

This permit incorporates by reference every NOx allowance that is allocated, transferred, or deducted in accordance with the provisions of Chapter 145, and which is recorded by the NOx Budget Administrator to or from the compliance and overdraft accounts of the NOx Budget units covered under this permit, and as provided for under Chapter 145. The emission limitations, monitoring and all other requirements of the NOx Budget Trading Program established in 25 Pa. Code §§ 145.1-145.90 are hereby incorporated by reference.

020 [25 Pa. Code §145.10.]

Authorization and responsibilities of the NOx authorized account representative.

- (1) [§ 145.10(a)] Except as provided under § 145.11 (relating to alternate NOx authorized account representative), each NOx budget source, including all NOx budget units at the source, shall have one, and only one, NOx authorized account representative, with regard to all matters under the NOx Budget Trading Program concerning the source or any NOx budget unit at the source.
- (2) [§ 145.10(e)] Each submission under the NOx Budget Trading Program shall be submitted, signed and certified by the NOx authorized account representative for each NOx budget source on behalf of which the submission is made.

021 [25 Pa. Code §145.204.]

Incorporation of Federal regulations by reference.

- (a) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Annual Trading Program, found in 40 CFR Part 96 (relating to NOx budget trading program and CAIR NOx and SO2 trading programs for State implementation plans), including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (b) Except as otherwise specified in this subchapter, the provisions of the CAIR SO2 Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (c) Except as otherwise specified in this subchapter, the provisions of the CAIR NOx Ozone Season Trading Program, found in 40 CFR Part 96, including all appendices, future amendments and supplements thereto, are incorporated by reference.
- (d) In the event of a conflict between Federal regulatory provisions incorporated by reference in this subchapter and Pennsylvania regulatory provisions, the provision expressly set out in this subchapter shall be followed unless the Federal provision is more stringent. Federal regulations that are cited in this subchapter or that are cross-referenced in the Federal regulations incorporated by reference include any Pennsylvania modifications made to those Federal regulations.

022 [25 Pa. Code §145.211.]

Timing requirements for CAIR NOx allowance allocations.

(a) Provisions not incorporated by reference. The requirements of 40 CFR 96.141 (relating to timing requirements for CAIR NOx allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.141, the requirements set forth in this



section apply.

- (b) Regular allocations. The Department will make regular allocations of CAIR NOx allowances as follows:
 - (1) Not Applicable
- (2) Except for allocations made under subsection (c), by April 30, 2009, the Department will submit to the Administrator the CAIR NOx allowance allocations made in accordance with § 145.212 for the control period in 2013 in a format prescribed by the Administrator. By April 30 every year after 2009, the Department will submit the allocations for the next consecutive control period.
- (3) The Department will reserve 1.3% of the CAIR NOx Trading Budget for each annual control period for allocation to units as provided under § 145.212(f)(2).
- (c) New CAIR NOx unit allowance allocations. By April 30, 2011, and by April 30 every year thereafter, the Department will submit to the Administrator the CAIR NOx allowance allocations made in accordance with § 145.212(e). The Department will base the allocations on actual emissions in the calendar year preceding the year of the submission.
- (d) Publication. The Department will publish notice of the proposed CAIR NOx allowance allocations in the Pennsylvania Bulletin and will publish the final allocations after a 15-day public comment period. The Department will include in the notice the name and telephone number of a person to contact for access to additional information. The Department will publish notice according to the following schedule:
 - (1) Not Applicable
- (2) For allocations made under subsection (b)(2), by April 1, 2009, and by April 1 every year thereafter.
- (3) For allocations made under subsection (c), by March 1 each year, beginning in 2011.
- (e) Order of budget allowance withdrawal. The Department will issue CAIR NOx allowances from the CAIR NOx Trading Budget established in 40 CFR 96.140 (relating to State trading budgets) in the following order:
 - (1) To new units under § 145.212(e).
 - (2) To units under § 145.212(f)(2).
- (3) To units under § 145.212(c).

023 [25 Pa. Code §145.212.]

CAIR NOx allowance allocations.

- (a) Provisions not incorporated by reference. The requirements of 40 CFR 96.142 (relating to CAIR NOx allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.142, the requirements in this section apply.
- (b) Baseline heat input. Baseline heat input for each CAIR NOx unit will be converted as follows:
- (1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for a calendar year under this paragraph will be determined in one of the following two ways:
- (i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to 40 CFR Part 75 for the year.
- (ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.
- (2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for a calendar year shall be determined as follows:



- (i) (iv) Not Applicable
- (v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the annual control period gross electrical output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the annual control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.
- (vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NOx unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.
- (c) Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline. For each control period beginning with January 1, 2010, and each year thereafter, the Department will allocate to qualifying resources and CAIR NOx units, including CAIR NOx units issued allowances under subsection (e), a total amount of CAIR NOx allowances equal to the number of CAIR NOx allowances remaining in the Commonwealth's CAIR NOx trading budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from a baseline year that is 6 calendar years before the control period.
- (d) Proration of allowance allocations. The Department will allocate CAIR NOx allowances to each existing CAIR NOx unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx allowances in the Commonwealth's CAIR NOx trading budget available for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NOx unit or qualifying resource to the sum of the baseline heat input of existing CAIR NOx units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.
- (e) Allocations to new CAIR NOx units. By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx allowances under § 145.211(c) (relating to timing requirements for CAIR NOx allowance allocations) to CAIR NOx units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.211(b). The Department will allocate CAIR NOx allowances under this subsection of a vintage year that is 5 years later than the year in which the emissions were generated. The number of CAIR NOx allowances allocated may not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.
- (f) Allocations to qualifying resources and units exempted by section 405(g)(6)(a) of the Clean Air Act. For each control period beginning with 2010 and thereafter, the Department will allocate CAIR NOx allowances to qualifying resources under paragraph (1) in this Commonwealth that are not also allocated CAIR NOx allowances under another provision of this subchapter and to existing units under paragraph (2) that were exempted at any time under section 405(g)(6)(a) of the Clean Air Act (42 U.S.C.A. § 7651d(g)(6)(A)), regarding phase II SO2 requirements, and that commenced operation prior to January 1, 2000, but did not receive an allocation of SO2 allowances under the EPA's Acid Rain Program, as follows:
- (1) The Department will allocate CAIR NOx allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NOx allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph. The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NOx unit. The following procedures apply:
- (i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a certificate of representation with the EPA and the Department.
- (ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania



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SECTION D. Source Level Requirements

Public Utility Commission or its designee.

- (iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
- (iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.
- (2) The Department will allocate CAIR NOx allowances to the owner or operator of a CAIR SO2 unit that commenced operation prior to January 1, 2000, that has not received an SO2 allocation for that compliance period, as follows:
- (i) By January 31, 2011, and each year thereafter, the owner or operator of a unit may apply, in writing, to the Department under this subsection to receive extra CAIR NOx allowances.
- (ii) The owner or operator may request under this subparagraph one CAIR NOx allowance for every 8 tons of SO2 emitted from a qualifying unit during the preceding control period. An owner or operator of a unit covered under this subparagraph that has opted into the Acid Rain Program may request one CAIR NOx allowance for every 8 tons of SO2 emissions that have not been covered by the SO2 allowances received as a result of opting into the Acid Rain Program.
- (iii) If the original CAIR NOx allowance allocation for the unit for the control period exceeded the unit's actual emissions of NOx for the control period, the owner or operator shall also deduct the excess CAIR NOx allowances from the unit's request under subparagraph (ii). This amount is the unit's adjusted allocation and will be allocated unless the proration described in subparagraph (iv) applies.
- (iv) The Department will make any necessary corrections and then sum the requests. If the total number of NOx allowances requested by all qualified units under this paragraph, as adjusted by subparagraph (iii), is less than 1.3% of the Commonwealth's CAIR NOx Trading Budget, the Department will allocate the corrected amounts. If the total number of NOx allowances requested by all qualified units under this paragraphexceeds 1.3% of the Commonwealth's CAIR NOx Trading Budget, the Department will prorate the allocations based upon the following equation:

(Formula omitted...refer to regulation for exact formula notation)

AA = [EAX(0.013 XBNA)]/TRAwhere,

AA is the unit's prorated allocation,

EA is the adjusted allocation the unit may request under subparagraph (iii),

BNA is the total number of CAIR NOx allowances in the Commonwealth's CAIR NOx Trading Budget,

TRA is the total number of CAIR NOx allowances requested by all units requesting allowances under this paragraph.

- (3) The Department will review each CAIR NOx allowance allocation request under this subsection and will allocate CAIR NOx allowances for each control period under a request as follows:
- (i) The Department will accept an allowance allocation request only if the request meets, or is adjusted by the Department as necessary to meet, the requirements of this section.
- (ii) On or after January 1 of the year of allocation, the Department will determine the sum of the CAIR NOx allowances requested.
- (4) Up to 1.3% of the Commonwealth's CAIR NOx trading budget is available for allocation in each allocation cycle from 2011-2016 to allocate 2010-2015 allowances for the purpose of offsetting SO2 emissions from units described in paragraph (2). Beginning January 1, 2017, and for each allocation cycle thereafter, the units will no longer be allocated CAIR NOx allowances under paragraph (2). Any allowances remaining after this allocation will be allocated to units under § 145.212(c) during the next allocation cycle.
- (5) Notwithstanding the provisions of paragraphs (2)--(4), the Department may extend, terminate or otherwise modify the allocation of NOx allowances made available under this subsection for units exempted under section 405(g)(6)(a) of the Clean Air Act after providing notice in the Pennsylvania Bulletin and at least a 30-day public comment period.
- (g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been



allocated.

024 [25 Pa. Code §145.221.]

Timing requirements for CAIR NOx ozone season allowance allocations.

- (a) Provisions not incorporated by reference. The requirements of 40 CFR 96.341 (relating to timing requirements for CAIR NOx ozone season allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.341, the requirements in this section apply.
- (b) Regular allocations. The Department will make regular allocations of CAIR NOx ozone season allowances as follows:
 - (1) Not Applicable
- (2) Except for allocations made under subsection (c), by April 30, 2009, the Department will submit to the Administrator the CAIR NOx ozone season allowance allocations made in accordance with § 145.222 for the control period in 2013 in a format prescribed by the Administrator. By April 30 every year after 2009, the Department will submit the allocations for the next consecutive control period.
- (c) New CAIR NOx unit allowance allocations. By April 30, 2011, and by April 30 every year thereafter, the Department will submit to the Administrator the CAIR NOx Ozone Season allowance allocations made in accordance with § 145.222(e). The Department will base the allocations on actual emissions in the ozone season in the calendar year preceding the year of the submission.
- (d) Publication. The Department will publish notice of the proposed CAIR NOx Ozone Season allowance allocations in the Pennsylvania Bulletin and will publish the final allocations after a 15-day public comment period. The Department will include in the notice the name and telephone number of a person to contact for access to additional information. The Department will publish notice according to the following schedule:
 - (1) Not Applicable
 - (2) For allocations made under subsection (b)(2), by April 1, 2009, and by April 1 every year thereafter.
 - (3) For allocations made under subsection (c), by March 1 each year, beginning in 2011.
- (e) Order of budget allowance withdrawal. The Department will issue CAIR NOx ozone season allowances from the CAIR NOx ozone season Trading Budget established in 40 CFR 96.240 (relating to State trading budgets) in the following order:
 - (1) To new units under § 145.222(e).
- (2) To units under § 145.222(c).

025 [25 Pa. Code §145.222.]

CAIR NOx Ozone Season allowance allocations.

- (a) Provisions not incorporated by reference. The requirements of 40 CFR 96.342 (relating to CAIR NOx ozone season allowance allocations) are not incorporated by reference. Instead of 40 CFR 96.342, the requirements in this section apply.
- (b) Baseline heat input. Baseline heat input for each CAIR NOx ozone season unit will be converted as follows:
- (1) A unit's control period heat input and a unit's status as coal-fired or oil-fired for the ozone season portion of a calendar year under this paragraph will be determined in one of the following two ways:
- (i) In accordance with 40 CFR Part 75 (relating to continuous emission monitoring), to the extent that the unit was otherwise subject to the requirements of 40 CFR Part 75 for the control period.
- (ii) Based on the best available data reported to the Department for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.





- (2) Except as provided in subparagraphs (iv) and (v), a unit's converted control period heat input for the ozone season portion of a calendar year shall be determined as follows:
 - (i) (iv) Not Applicable
- (v) For a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating or cooling purposes through the sequential use of energy, the control period gross electrical output of the enclosed device comprising the compressor, combustor and turbine multiplied by 3,413 Btu/kWh, plus the total heat energy (in Btu) of the steam produced by any associated heat recovery steam generator during the ozone season control period divided by 0.8, and with the sum divided by 1,000,000 Btu/mmBtu.
- (vi) Calculations will be based on the best output data available on or before January 31 of the year the allocations are published. If unit level electrical or steam output data are not available from EIA, or submitted by this date by the owner or operator of the CAIR NOx Ozone Season unit, then heat input data for the period multiplied by 0.25 and converted to MWh will be used to determine total output.
- (c) Existing unit, new unit and subsection (f)(1) qualifying resource allocation baseline. For each control period beginning with the 2010 control period and thereafter, the Department will allocate to qualifying resources and CAIR NOx ozone season units, including CAIR NOx ozone season units issued allowances under subsection (e), a total amount of CAIR NOx ozone season allowances equal to the number of CAIR NOx ozone season allowances remaining in the Commonwealth's CAIR NOx Ozone Season Trading Budget under 40 CFR 96.140 (relating to State trading budgets) for those control periods using summed baseline heat input data as determined under subsections (b) and (f)(1) from an ozone season control period in a baseline year that is 6 calendar years before the control period.
- (d) Proration of allowance allocations. The Department will allocate CAIR NOx ozone season allowances to each existing CAIR NOx ozone season unit and qualifying resource in an amount determined by multiplying the amount of CAIR NOx ozone season allowances in the Commonwealth's CAIR NOx ozone season Trading Budget available for allocation under subsection (c) by the ratio of the baseline heat input of the existing CAIR NOx ozone season unit or qualifying resource to the sums of the baseline heat input of existing CAIR NOx ozone season units and of the qualifying resources, rounding to the nearest whole allowance as appropriate.
- (e) Allocations to new CAIR NOx ozone season units. By March 31, 2011, and March 31 each year thereafter, the Department will allocate CAIR NOx ozone season allowances under § 145.221(c) (relating to timing requirements for CAIR NOx ozone season allowance allocations) to CAIR NOx ozone season units equal to the previous year's emissions at each unit, unless the unit has been issued allowances of the previous year's vintage in a regular allocation under § 145.221(b). The Department will allocate CAIR NOx allowances under this subsection of a vintage year that is 5 years later than the year in which the emissions were generated. The number of CAIR NOx ozone season allowances allocated shall not exceed the actual emission of the year preceding the year in which the Department makes the allocation. The allocation of these allowances to the new unit will not reduce the number of allowances the unit is entitled to receive under another provision of this subchapter.
- (f) Allocations to qualifying resources. For each control period beginning with the 2010 control period, and thereafter, the Department will allocate CAIR NOx ozone season allowances to qualifying resources in this Commonwealth that are not also allocated CAIR NOx ozone season allowances under another provision of this subchapter, as follows:
- (1) The Department will allocate CAIR NOx ozone season allowances to a renewable energy qualifying resource or demand side management energy efficiency qualifying resource in accordance with subsections (c) and (d) upon receipt by the Department of an application, in writing, on or before June 30 of the year following the control period, except for vintage year 2011 and 2012 NOx ozone season allowance allocations whose application deadline will be prescribed by the Department, meeting the requirements of this paragraph. The number of allowances allocated to the qualifying resource will be determined by converting the certified quantity of electric energy production, useful thermal energy, and energy equivalent value of the measures approved under the Pennsylvania Alternative Energy Portfolio Standard to equivalent thermal energy. Equivalent thermal energy is a unit's baseline heat input for allocation purposes. The conversion rate for converting electrical energy to equivalent thermal energy is 3,413 Btu/kWh. To receive allowances under this subsection, the qualifying resource must have commenced operation after January 1, 2005, must be located in this Commonwealth and may not be a CAIR NOx ozone season unit. The following procedures apply:





- (i) The owner of a qualifying renewable energy resource shall appoint a CAIR-authorized account representative and file a certificate of representation with the EPA and the Department.
- (ii) The Department will transfer the allowances into an account designated by the owner's CAIR-authorized account representative of the qualifying resource, or into an account designated by an aggregator approved by the Pennsylvania Public Utility Commission or its designee.
 - (iii) The applicant shall provide the Department with the corresponding renewable energy certificate serial numbers.
 - (iv) At least one whole allowance must be generated per owner, operator or aggregator for an allowance to be issued.
- (g) The Department will correct any errors in allocations made by the Department and discovered after final allocations are made but before the next allocation cycle, in the subsequent allocation cycle using future allowances that have not yet been allocated.

026 [25 Pa. Code §145.6]

Standard requirements.

(1) The owners and operators of each NOx budget source and each NOx budget unit at the source shall hold NOx allowances available for compliance deductions under § 145.54 (relating to compliance), as of the NOx allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NOx emissions for the control period from the unit, as determined in accordance with §§ 145.70-145.76 (relating to recordkeeping and reporting requirements) plus any amount necessary to account for actual heat input under § 145.42 (e) (relating to NOx allowance allocation) for the control period or to account for excess emissions for a prior control period under § 145.54(d) or to account for withdrawal from the NOx budget trading program, or a change in regulatory status, of a NOx budget opt-in unit under §§ 145.86 and 145.87 (relating to withdrawal from NOx Budget Trading Program; and opt-in source change in regulatory status).

027 [25 Pa. Code §145.6]

Standard requirements.

The owners and operators of a NOx budget unit that has excess emissions in any control period shall do the following: Surrender the NOx allowances required for deduction under § 145.54(d)(1) (relating to compliance).

028 [25 Pa. Code §145.8.]

Transition to CAIR NOx Trading Programs.

- (a) Allowances. The final year for NOx allowance allocations to be made by the Department under §§ 145.41 and 145.42 (relating to timing requirements for NOx allowance allocations; and NOx allowance allocations) will be 2008. Allocations in 2009 will be made in accordance with the Federal CAIR Ozone Season Trading Program, 40 CFR Part 97 (relating to Federal NOx Budget Trading Program and CAIR NOx and SO2 Trading Programs). CAIR NOx Ozone Season allowance allocations for the control period starting May 1, 2010, and for each control period thereafter, will be distributed in accordance with Subchapter D (relating to CAIR NOx and SO2 Trading Programs).
- (b) Termination and retirement of allowances. NOx allowances already allocated under this subchapter for 2009 or later are terminated and may not be used for compliance with the CAIR NOx Annual Trading Program or the CAIR NOx Ozone Season Trading Program, as those terms are defined in 40 CFR 96.102 and 96.302 (relating to definitions). By January 1, 2009, the Department will permanently retire the Commonwealth's non-EGU NOx Trading Program Budget of 3,619 allowances established in § 145.40 (relating to State Trading Program budget).
- (c) Requirements replaced. The emission limitations and monitoring requirements established in Subchapter A (relating to NOx Budget Trading Program) are replaced by the requirements in Subchapter D beginning with the May 1, 2010, control period. If the owner or operator of a NOx budget unit or CAIR NOx Ozone Season unit, as defined in 40 CFR 96.302, has failed to demonstrate compliance with § 145.54 (relating to compliance), the provisions in 40 CFR 96.354 (relating to compliance with CAIR NOx emissions limitation) shall be used to withhold CAIR NOx Ozone Season allowances, as that term is defined in 40 CFR 96.302, in calendar year 2010 and beyond. If no CAIR NOx Ozone Season allowances are provided to the unit under § 145.221 (relating to timing requirements for CAIR NOx Ozone Season allowance allocations), the owner or operator of the unit shall acquire and retire a number of CAIR NOx Ozone Season allowances as specified in 40 CFR 96.354.
- (d) Non-EGU NOx Trading Program Budget. For units subject to the applicability requirements of § 145.4 (relating to applicability), but not subject to the CAIR NOx Ozone Season Trading Program requirements of Subchapter D, the following



requirements apply:

- (1) Statewide limitation. The sum of NOx ozone season emissions from all units subject to this subsection may not exceed the Commonwealth's non-EGU NOx Trading Program budget of 3,619 tons during any ozone season.
- (2) CAIR NOx ozone season allowances. All units subject to this subsection shall monitor and report NOx emissions in accordance with 40 CFR Part 96, Subpart HHHH (relating to monitoring and reporting), and establish a CAIR-authorized account representative and general account, in accordance with 40 CFR Part 96, Subparts BBBB and FFFF (relating to CAIR designated representative for CAIR NOx ozone season sources; and CAIR NOx ozone season allowance tracking system), incorporated into Subchapter D by reference, for the purposes of ensuring continued compliance with the non-EGU NOx Trading Program budget limitation of paragraph (1) and of retiring CAIR NOx ozone season allowances.
- (3) CAIR NOx allowances. All units subject to this subsection shall establish a CAIR-authorized account representative and general account in accordance with 40 CFR Part 96, Subparts BB and FF (relating to CAIR designated representative for CAIR NOx sources; and CAIR NOx allowance tracking system), incorporated into Subchapter D by reference, for the purpose of retiring CAIR NOx allowances.
- (4) Emissions below Statewide limitation. If the total ozone season emissions from all units subject to this subsection are less than 3,438 tons of NOx, the Department's permanent retirement of allowances covers all applicable emissions and no additional account transactions are required by the units covered under this subsection.
- (5) Allowable emissions per unit. By January 31, 2009, and by January 31 of each year thereafter, the Department will determine the allowable amount of NOx emissions for the next ozone season for each unit subject to this subsection, as follows:

Allowable emission rate X each unit's heat input

(Formula omitted...refer to regulation for exact formula notation)

Where "Allowable emission rate" = 3,438 tons of NOx

Combined heat input of all units during the most recent ozone season

- (6) Allowance surrender for excess emissions. If the combined NOx emissions from all units subject to this subsection exceed 3,438 tons in an ozone season, then a unit whose actual emissions exceed the unit's allowable emissions for that ozone season, as determined under paragraph (5), shall surrender to the Department by April 30 of the year following the ozone season one CAIR NOx ozone season allowance and one CAIR NOx allowance for each ton of excess emissions. A unit whose excess emissions are 0.5 ton or greater of the next excess ton shall surrender 1 full ton of CAIR NOx allowances (banked or current) for that excess emission. Units under common ownership may include the allowable and actual emissions from multiple units to determine whether a unit must surrender allowances.
- (7) Surrender procedure. To surrender allowances under paragraph (6), an owner or operator of a unit shall surrender the required CAIR NOx ozone season allowances and CAIR NOx allowances to the Department's designated NOx allowance tracking system account and provide to the Department, in writing, the following:
 - (i) The serial number of each allowance surrendered.
 - (ii) The calculations used to determine the quantity of allowances required to be surrendered.
- (8) Failure to surrender allowances. If an owner or operator fails to comply with paragraph (6), the owner or operator shall by June 30 surrender three CAIR NOx ozone season allowances and three CAIR NOx allowances of the current or later year vintage for each ton of excess emissions as calculated under paragraph (6).
- (9) Liability not affected. The surrender of CAIR NOx ozone season allowances and CAIR NOx allowances under paragraph (6) 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.



- (i) 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.
 - (ii) Each ton of excess emissions is a separate violation.
- (10) Allowance retirement. The Department will permanently retire to the Department's CAIR NOx retirement account the allowances surrendered under paragraphs (6)--(9).
- (11) Actual emissions below allowable emissions. If a facility's allowable emissions exceed the facility's actual emissions for an ozone season, the owner or operator may deduct the difference or any portion of the difference from the actual emissions of units under the facility's common control that are subject to §§ 129.201--129.203 (relating to boilers; stationary combustion turbines; and stationary internal combustion engines).
- (12) Corrections. One hundred and eighty-one tons of allowable NOx emissions are available to the Department annually for accounting corrections.

029 [25 Pa. Code §145.90.]

Emission reduction credit provisions.

NOx budget units may create, transfer and use emission reduction credits ("ERCs") in accordance with Chapter 127 and § 145.90. ERCs may not be used to satisfy NOx allowance requirements.

*** Permit Shield in Effect. ***



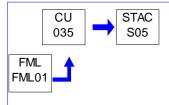


Source ID: 035 Source Name: LANDFILL GAS FIRED TURBINE

Source Capacity/Throughput: 43.400 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 01

GROUP 03



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. ***



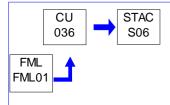


Source ID: 036 Source Name: LANDFILL GAS FIRED TURBINE

Source Capacity/Throughput: 43.400 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 01

GROUP 03



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. ***



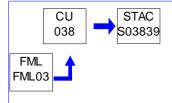


Source ID: 038 Source Name: NO.1 NATURAL GAS AUXILIARY BOILER

Source Capacity/Throughput: 9.400 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 02

GROUP 03



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. ***



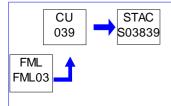


Source ID: 039 Source Name: NO.2 NATURAL GAS AUXILIARY BOILER

Source Capacity/Throughput: 9.400 MMBTU/HR

Conditions for this source occur in the following groups: GROUP 02

GROUP 03



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. ***





Group Name: GROUP 01

Group Description: Landfill Gas Fired Turbines

Sources included in this group

	ID	Name
	035	LANDFILL GAS FIRED TURBINE
Ī	036	LANDFILL GAS FIRED TURBINE

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The following emission limitations for landfill gas-fired turbines for which construction commenced on or after July 1, 1972 and where BAT requirements have not been previously established shall apply:
 - (1) In accordance with 25 Pa. Code § 127.12b, the permittee shall limit the emissions from each turbine to the following:
 - (i) Oxides of Nitrogen (NOx) 22 ppmvd corrected to 15% oxygen;
 - (ii) Carbon Monoxide (CO) 100 ppmvd corrected to 15% oxygen;
 - (iii) Sulfur Dioxide (SO2) 30 ppmvd corrected to 15% oxygen; and,
 - (iv) Particulate Matter (PM) 0.0232 lb/MMBtu.
- (b) In accordance with 25 Pa. Code § 127.12b, the permittee shall limit the emissions of non-methane organic compounds (NMOC) from the turbine to 98% by weight less than the amount entering the turbine or 20 ppmvd as hexane corrected to 3% oxygen.
- (c) In accordance with 25 Pa. Code § 127.12b, any landfill gas-fired turbine(s) operated under this Operating Permit may not, at any time, result in visible emissions in excess of following:
 - (i) Normal operation: 10% opacity.
 - (ii) Start-up or shut-down:
 - -Equal to or greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any one hour.
 - -Equal to or greater than 60% opacity at any time.
- (d) National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines specified at 40 CFR Part 63, Subpart YYYY do not apply to a landfill gas-fired combustion turbine located at an area source of hazardous air pollutants (HAPs). An area source is any source that does not meet the applicability thresholds for a major source of HAP emissions. A major source of HAP emissions is any air contamination source or facility located on a contiguous site under common control that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAPs at a rate of 25 tons or more per year. HAP emissions from the landfill gas-fired turbines located at this facility shall be less than 10 tons for any single HAP and 25 tons aggregate for any combination of HAPs during any consecutive rolling 12-month period.
- (e) Each landfill gas-fired turbine is subject to the applicable requirements of 40 CFR Part 60, Subpart KKKK, Standards of Performance for Stationary Gas Turbines.
- (f) The owner or operator of a landfill gas-fired turbine(s) is not subject to the new source performance standards (NSPS) in 40 CFR Part 60, Subpart WWW, Emission Guidelines in 40 CFR Part 60, Subpart Cc, or the NESHAP requirements for municipal solid waste landfills specified in 40 CFR Part 63, Subpart AAAA if treated landfill gas is used in accordance with 40 CFR § 60.752(b)(2)(iii)(C). The compression, de-watering, and filtering of landfill gas down to at least 10 microns shall be considered as treatment. If the landfill gas does not qualify as a treated gas, the permittee shall comply with Subpart WWW and the NESHAP requirements in 40 CFR Part 63, Subpart AAAA.

If the permittee treats the landfill gas and combusts the gas in the turbine, the turbine is not subject to Subpart WWW or the NESHAP requirements in Subpart AAAA. Notwithstanding this exception, the emissions from the enclosed flare and any atmospheric vent from the treatment system shall be subject to the NSPS requirements of 40 CFR § 60.752(b)(2)(iii)(A) and





- (B), as well as the NESHAP requirements.
- (g) The owner and operator of landfill gas-fired turbine(s) shall comply with all applicable requirements of 40 CFR Part 63, Subpart AAAA.
- (h) Not Applicable

II. TESTING REQUIREMENTS.

002 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4340] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines
How do I demonstrate continuous compliance for NOX if I do not use water or steam injection?

(a) If you are not using water or steam injection to control NOX emissions, you must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NOX emission result from the performance test is less than or equal to 75 percent of the NOX emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NOX emission limit for the turbine, you must resume annual performance tests.

III. MONITORING REQUIREMENTS.

003 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4360] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How do I determine the total sulfur content of the turbine's combustion fuel?

You must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see §60.17), which measure the major sulfur compounds, may be used.

004 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4370] Subpart KKKK - Standards of Performance for Stationary Combustion Turbines How often must I determine the sulfur content of the fuel?

The frequency of determining the sulfur content of the fuel must be as follows:

- (a) Not Applicable
- (b) Gaseous fuel. If you elect not to demonstrate sulfur content using options in §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day.
- (c) Custom schedules. Notwithstanding the requirements of paragraph (b) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (c)(1) and (c)(2) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in §60.4330.
- (1) PEI received approval for an alternative custom fuel gas monitoring for total sulfur from EPA REGION III on JUNE 25, 2014.
 - (2) PEI will perform the following approved sulfur sampling schedule:
- (i) Daily monitoring of the H2S content of the LFG supplying the Mercury 50 units with a Landtec, Model GEM 5000 portable analyzer or equivalent monitor. The analyzer provides a convenient, cost effective and relatively accurate monitoring method to determine the magnitude and extent of the H2S levels observed. The normal operating range of the H2S analyzer is 0 to 500 ppm.
 - (ii) Daily readings will be recorded on a monthly log sheet.
 - (iii) The portable analyzer will be calibrated in-house on a monthly basis.



- (iv) The portable analyzer will be sent to the manufacturer for the annual service, calibration and certification.
- (v) A Drager gas detector system will be used as a back-up analytical technique when the portable analyzer unit is being calibrated and/or repaired. The H2S detector tubes have a range of 0-200 ppm and 0-2000 ppm.
- (vi) A monthly sample will be sent to a laboratory and analyzed in accordance with ASTM Method D 5504, an acceptable methodology to determine the total sulfur content of all sulfur compounds in LFG.

IV. RECORDKEEPING REQUIREMENTS.

005 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The permittee shall record the following:
 - (i) Monthly amount of landfill gas fired in each turbine;
 - (ii) 12-month rolling total amount of landfill gas fired in each turbine;
 - (iii) Hours of operation each month;
 - (iv) Monthly emissions of Particulate, SO2, NOx, CO, NMOC, and HAPs; and,
 - (v) 12-month rolling total emissions of Particulate, SO2, NOx, CO, NMOC, and HAPs.
- (b) The permittee shall calculate the emissions from the turbine(s) as proposed in the application or in another manner approved by the Department. The methods of calculating the emissions shall be reviewed after the results of the required testing are approved.
- (c) The permittee shall install and maintain a device that measures and records the flow of landfill gas to the turbine(s).
- (d) The permittee shall maintain a permanently bound logbook or other method approved by the Department. This log shall, at a minimum, contain the following information:
 - (i) The date of the tuning procedures and/or routine maintenance;
 - (ii) The date of any turbine core replacement;
 - (iii) The name of the service company and technicians;
 - (iv) The final operating rate or load;
 - (v) The final NOX and CO emission rates:
 - (vi) The final excess oxygen rate; and,
 - (vii) Any other information required by this Operating Permit.
- (e) The permittee shall record each start-up, shut down, and malfunction of the turbine. The record shall include the date, time, duration and type of event.
- (f) If the landfill gas fired turbine is subject to the NSPS requirements in 40 CFR § 60.757 (relating to reporting requirements) or the Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills in 40 CFR Part 60, Subpart Cc, the permittee shall record the monthly and 12-month rolling total emissions of NMOCs from the turbine.
- (g) These records shall be retained for a minimum of fifteen (15) years and shall be made available to the Department upon request. The Department reserves the right to expand the list contained in this condition as it may reasonably prescribe pursuant to the provisions of Section 4 of the Pennsylvania Air Pollution Control Act (35 P. S. § 4004), and as it may deem necessary to determine compliance with any conditions contained herein.

006 [25 Pa. Code §127.512]

Operating permit terms and conditions.

The permittee shall keep records of sample results of sulfur content of landfill gas used in Source ID 035 and 036. These records shall be kept for a five (5) year period and be made available to the Department upon request.

V. REPORTING REQUIREMENTS.

007 [25 Pa. Code §127.512]

Operating permit terms and conditions.

Any planned or unplanned turbine core replacement shall be reported to the Department in accordance with Condition #010.





008 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4375]

Subpart KKKK - Standards of Performance for Stationary Combustion Turbines

What reports must I submit?

- (a) For each affected unit required to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content under this subpart, you must submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction.
- (b) For each affected unit that performs annual performance tests in accordance with §60.4340(a), you must submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test.

VI. WORK PRACTICE REQUIREMENTS.

009 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The permittee, at a minimum, shall conduct leak checks on the landfill gas handling and processing equipment.
- (b) The permittee shall perform an annual adjustment and/or tune-up on each unit, which shall include the following:
- (i) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer;
- (ii) Inspection of flame pattern of characteristics and adjustments necessary to minimize emissions of NOX, and to the extent practicable minimize emissions of CO;
- (iii) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer; and,
- (iv) Sampling of the final NOX and CO emission rates. This sampling shall be conducted with portable metering equipment in accordance with applicable manufacturer's calibration and operating procedures.

VII. ADDITIONAL REQUIREMENTS.

010 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) The owner or operator of any landfill gas-fired turbine shall comply with the applicable requirements specified in 40 CFR Part 60, Subpart KKKK (relating to standards of performance for stationary combustion turbines). Pursuant to 40 CFR § 60.4 (relating to address), the submission of copies of all requests, reports, applications, submittals and other communications shall be provided to both EPA and the Department.
- (b) If the landfill gas-fired turbine is subject to 40 CFR Part 60, Subpart WWW or the Emission Guidelines in Subpart Cc, the permittee shall comply with all applicable requirements. Pursuant to 40 CFR § 60.4, the submission of copies of all requests, reports, applications, submittals and other communications shall be provided to both EPA and the Department. Copies of all documents provided to EPA shall be sent to:

Enforcement & Compliance Assurance Division

Air, RCRA and Toxics Branch (3ED21)

Four Penn Center

1600 John F. Kennedy Boulevard

Philadelphia, PA 19103-2852

(c) Copies of all documents provided to the Department shall be sent to the appropriate DEP Regional Office or submitted through OnBase.

011 [25 Pa. Code §127.512]

Operating permit terms and conditions.

- (a) Any replacement of the turbine core of a turbine compression engine with an identical turbine core or a lower emitting turbine core, shall be exempt from plan approval requirements, provided the following requirements are met:
- (1) The permittee shall provide thirty (30) days prior written notice to the Department of a planned turbine core replacement.





- (2) The permittee shall provide written notice to the Department within seven (7) days following the commencement of a turbine core replacement necessitated by an equipment failure or other unplanned event.
- (3) The written notice shall identify the location, the manufacturer, model, and serial number of the turbine compression engine, the manufacturer, model, and serial number of the turbine core to be installed, or which has been installed, in the turbine compression engine and the air contaminant emission rates which will exist following the turbine core replacement, including oxides of nitrogen (NOx), carbon monoxide (CO) and volatile organic compounds (VOCs).
- (4) The written notice shall also contain a certification from the permittee that any turbine core to be installed has been manufactured by either the existing turbine manufacturer or other manufacturer and will be a lower emitting turbine core or, if the core will be replaced with an identical core, that a lower emitting core is not available. Existing turbine manufacturers shall include companies that maintain the turbine cores of the existing turbines at the facility. If the permittee decides to install a turbine core obtained from a manufacturer other than the existing turbine manufacturer, the notice shall contain a certification, signed by a responsible official as defined in 25 Pa. Code Section 121.1(relating to definitions), that the permittee has examined the turbine cores that are available from all such manufacturers and will install, or has installed, the lowest emitting turbine core available from any manufacturer.
- (5) The notice shall be accompanied by a vendor-provided guarantee of the achievable air contaminant emission rates of the new turbine core. If such a guarantee is not available, the notice shall include certification that the permittee attempted to obtain such guarantee and an explanation as to why the vendor will not provide such a guarantee.
- (6) All certifications shall be signed by a responsible official and shall acknowledge that the certifying party is aware of the penalties for unsworn falsification to governmental authorities as established under 18 Pa.C.S. § 4904. The certification shall also state that based on information and belief formed after reasonable inquiry, that the information in the notice are true, accurate and complete.
- (7) For purposes of this Operating Permit, a turbine core is a Lower Emitting Turbine Core if it is commercially available, has the same operating characteristics as the core being removed and the rate of NOX emissions, expressed as either parts per million by volume dry basis (ppmvd) or pounds per hour (lb/hr) would be lower than the rates of emission achievable by any commercially available alternative turbine core when the respective turbine was operating at the same level of performance. If the horsepower, firing rate and operating speed of the core being removed falls within the ranges of horsepower, firing rate, and operating speed for the Lower Emitting Turbine Core, the Lower Emitting Turbine Core is considered to have the same operating characteristics as the core being removed. A turbine core is an Identical Turbine Core if the rate of NOX emissions is no higher than the emission rates of the turbine core being replaced when the respective turbine is operating at the same level of performance.
- (8) After a like-kind turbine core has been replaced, the permittee shall perform NOx and CO emissions testing for the respective turbine compressor engine(s) within ninety (90) days of completing the replacement as established in this SECTION E, Permit Condition #009 (b)(iv) Sampling of the final NOx and CO emission rates. This sampling shall be conducted with portable metering equipment in accordance with applicable manufacturer's calibration and operating procedures.

At least two (2) weeks prior to test performance, the permittee shall inform the Department, in writing, of the date and time of the test. Within sixty (60) days of completing the emissions testing, two (2) copies of a test report, including a comprehensive description of the turbine operating conditions during the testing, shall be submitted to the Department.

- (9) A plan approval and/or operating permit issued in accordance with 25 Pa. Code Chapter 127, Subchapter B and/or Subchapter F, or if the facility is a Title V facility, a Title V operating permit issued in accordance with Subchapters F and G will be required if emission test results exceed the emission limits specified in this Operating Permit, or, the replacement of the turbine core includes parts other than the turbine core itself. In order to obtain the plan approval and/or operating permit, or Title V operating permit, it may be necessary to install an air pollution control device.
- (10) For turbine compression engines existing at the facility on the date this Operating Permit is first issued, turbine core replacements may occur pursuant to this exemption for no more than fifteen (15) years from the date of the first replacement. For new turbine compression engines, turbine core replacements may not occur pursuant to this exemption for no more than fifteen (15) years after the turbine compression engine first commences operation. Any subsequent proposed turbine core replacements for both new and existing engines will require a plan approval application including a





best available technology evaluation to be submitted to the Department for its review and approval. Once approved, turbine core replacements may occur pursuant to this exemption for another fifteen (15) years, before a new plan approval and best available technology evaluation is required.

[25 Pa. Code §127.512] # 012

Operating permit terms and conditions.

Any applicant authorized to operate a landfill gas-fired turbine(s) under this operating permit must comply with the terms and conditions of the Operating Permit. The landfill gas-fired turbine(s) shall be:

- (a) Operated in such a manner as not to cause air pollution, as the term is defined in 25 Pa. Code § 121.1.
- (b) Operated and maintained in a manner consistent with good operating and maintenance practices; and,
- (c) Operated and maintained in accordance with the manufacturer's specifications and the applicable terms and conditions of this Operating Permit.

*** Permit Shield in Effect. ***





Group Name: GROUP 02

Group Description: NO.1 AND NO.2 NATURAL GAS AUXILIARY BOILERS

Sources included in this group

ID	Name
038	NO.1 NATURAL GAS AUXILIARY BOILER
039	NO.2 NATURAL GAS AUXILIARY BOILER

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §123.11]

Combustion units

(a) The permittee may not permit the emission into the outdoor atmosphere of particulate matter from a combustion unit in excess of the following:

The rate determined by the following formula:

 $A = 3.6E^{(-0.56)}$

where:

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

E = Heat input to the combustion unit in millions of BTUs per hour,

when E is equal to or greater than 50 but less than 600.

002 [25 Pa. Code §123.22]

Combustion units

The permittee may not permit the emission into the outdoor atmosphere of sulfur oxides, expressed as SO2, from a combustion unit in excess of the rate of 4 pounds per million Btu of heat input over a 1-hour period.

003 [25 Pa. Code §123.41]

Limitations

- (a) A person may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following:
 - (1) Equal to or greater than 20% for a period or periods aggregating more than three minutes in any 1 hour.
 - (2) Equal to or greater than 60% at any time.

II. TESTING REQUIREMENTS.

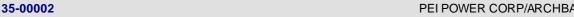
No additional testing requirements exist except as provided in other sections of this permit including Section B (Title V General Requirements).

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.

004 [25 Pa. Code §129.97]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule.

The permittee shall comply with the Presumptive RACT requirements of 25 Pa. Code § 129.97 by maintaining and operating the Group 02 combustion units in accordance with the manufacturer's specifications and with good engineering practices.

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 03

Group Description: Presumptive RACT III

Sources included in this group

ID	Name
031	MAIN BOILER
035	LANDFILL GAS FIRED TURBINE
036	LANDFILL GAS FIRED TURBINE
038	NO.1 NATURAL GAS AUXILIARY BOILER
039	NO.2 NATURAL GAS AUXILIARY BOILER

I. RESTRICTIONS.

Emission Restriction(s).

001 [25 Pa. Code §129.112]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule

[The emission limit in this condition is superseded by Section D, Source ID 031 condition #003]

The owner and operator of a direct-fired heater, furnace, oven or other combustion source with a rated heat input equal to or greater than 20 million Btu/hour subject to § 129.111 shall comply with the presumptive RACT emission limitation of 0.10 lb NOx/million Btu heat input.

002 [25 Pa. Code §129.112]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule

[The emission limit in this condition is superseded by Group 01, Condition #001 for these sources.]

(g) Except as specified in subsection (c), the owner and operator of a NOx air contamination source listed in this subsection that is located at a major NOx emitting facility or a VOC air contamination source listed in this subsection that is located at a major VOC emitting facility subject to § 129.111 may not cause, allow or permit NOx or VOCs to be emitted from the air contamination source in excess of the applicable presumptive RACT emission limitation specified in the following paragraphs:

(2)(v)(A) The owner or operator of a Simple cycle or regenerative cycle combustion turbine with a rated output equal to or greater than 4,100 bhp and less than 60,000 bhp shall comply with the presumptive RACT emission limitation of 42 ppmvd NOx @ 15% oxygen when firing natural gas or a noncommercial gaseous fuel.

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 §129.115]

Written notification, compliance demonstration and recordkeeping and reporting requirements

The owner and operator of an air contamination source subject to this section and §§ 129.111—129.114 shall keep records to demonstrate compliance with §§ 129.111—129.114 and submit reports to the Department or appropriate approved local air pollution control agency in accordance with the applicable regulations in 25 Pa. Code, Part I, Subpart C, Article III (relating to air resources) and as specified in the operating permit or plan approval for the air contamination source as follows:

(1) The records shall include sufficient data and calculations to demonstrate that the requirements of §§ 129.111—129.114 are met.





- (2) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
- (3) The records necessary to determine compliance shall be reported to the Department or appropriate approved local air pollution control agency on a schedule specified in the applicable regulation or as otherwise specified in the operating permit or plan approval for the air contamination source.

004 [25 Pa. Code §129.115]

Written notification, compliance demonstration and recordkeeping and reporting requirements

The records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.

V. REPORTING REQUIREMENTS.

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

VI. WORK PRACTICE REQUIREMENTS.

005 [25 Pa. Code §129.112]

Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule

The owner and operator of a source that is located at a major NOx emitting facility subject to §129.111 shall install, maintain and operate the source in accordance with the manufacturer's specifications and with good operating practices.

VII. ADDITIONAL REQUIREMENTS.

006 [25 Pa. Code §129.114]

Alternative RACT proposal and petition for alternative compliance schedule

The owner or operator of an air contamination source subject to § 129.112 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) located at a major NOx emitting facility or major VOC emitting facility subject to § 129.111 (relating to applicability) that cannot meet the applicable presumptive RACT requirement or RACT emission limitation of § 129.112 may propose an alternative RACT requirement or RACT emission limitation in accordance with subsection (d).

*** Permit Shield in Effect. ***



SECTION F. Alternative Operation Requirements.

No Alternative Operations exist for this Title V facility.



SECTION G. Emission Restriction Summary.

No emission restrictions listed in this section of the permit.





SECTION H. Miscellaneous.

The Department received the Title V operating permit application for this facility on September 7, 2022. The Title V Operating Fees shall be paid in accordance with PA Code Title 25, Section 127.704 and Section 127.705. The Annual Maintenance Fee is due on or before December 31 of each year for the next calendar year.

The following is a list of sources that have been determined by the Department to be of minor significance under 25 Pa. Code, Chapter 127, Section 127.14(a)(8) and are exempt from plan approval requirements under §127.11 and §127.12. However, this determination does not exempt the sources from compliance with all applicable air quality regulations specified in 25 Pa. Code Chapters 121-143:

- (1) 21- space heaters, each rated at 150,000 Btu/hr,
- (2) 1- Water heater fired by propane, rated capacity 34,000 Btu/hr; and,
- (3) 2- HVAC unit of rated capacity 120,000 Btu/hr and 35,000 Btu/hr.
- (4) RFD # 35-0754 issued 03/31/2017 for replacement of Auxiliary Boiler with two (2) smaller natural gas auxiliary boiler.
- (5) RFD # 35-0762 issued 08/23/2017 for a LFG treatment system to remove moisture, oils, siloxanes as well as to process the regen gas through an enclosed flare.

The facility is exempt from Department Plan Approval Requirements for the landfill gas pipeline(s) cleaning activity. The cleaning activity is approved for no more than 120 hours/year. The activity is subject to 25 Pa. Code Section 123.41 for Visible Emissions and 123.31 for Malodors. The emissions from the temporary flare being used shall be calculated and included in the facility wide emissions that are reported. The landfill gas pipeline(s) cleaning activity emissions are calculated to be: CO - 0.90 tons/year, NOx-0.17 tons/year, VOCs - 0.34 tons/year. These emissions qualify under 25 Pa. Code Section 127.449 for De Minimis Emissions. The facility emissions from this activity shall not exceed the following totals for the duration of the operating permit (5 years):

Pollutant	Facility	Single Source
СО	20 tons	4 tons
NOx	5 tons	1 ton
SOx	8 tons	1.6 tons
PM10	3 tons	0.6 tons
VOC	5 tons	1 ton

RACTII

Pursuant to 129 Pa. Code §129.96, the facility is subject to the Presumptive RACT II NOx requirements. However, all combustion units have current NOx permit conditions that are more stringent than the applicable Presumptive NOx RACT II limitations.

The facility is not subject to VOC RACT II/III requirements.



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