



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

PLAN APPROVAL

Issue Date: April 11, 2025

Effective Date: July 14, 2026

Revision Date: July 14, 2026

Expiration Date: November 7, 2026

Revision Type: Modification

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to construct, install, modify or reactivate the air emission source(s) more fully described in the site inventory list. This Facility is subject to all terms and conditions specified in this plan approval. Nothing in this plan approval 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 plan approval condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated as "State-Only" requirements.

Plan Approval No. 08-00045C

Federal Tax Id - Plant Code: 45-2015223-1

Owner Information

Name: HAMILTON LIBERTY LLC

Mailing Address: 151 LIBERTY LN
TOWANDA, PA 18848-5301

Plant Information

Plant: HAMILTON LIBERTY LLC/HAMILTON LIBERTY LLC

Location: 08 Bradford County 08907 Asylum Township

SIC Code: 4911 Trans. & Utilities - Electric Services

Responsible Official

Name: BRIAN ZECHMAN

Title: GENERAL MGR

Phone: (570) 268 - 6902

Email: BrianZechman@cogentrix.com

Plan Approval Contact Person

Name: RYAN SINGER

Title: EHS MANAGER

Phone: (570) 547 - 3708

Email: RyanSinger@cogentrix.com

[Signature] _____

MUHAMMAD Q. ZAMAN, ENVIRONMENTAL PROGRAM MANAGER, NORTHCENTRAL REGION



Plan Approval Description

This plan approval is for the modification of two existing natural-gas-fired combined cycle powerblocks rated 490 MW where each powerblock consists of a combustion turbine and heat recovery steam generator with duct burner (Source ID P103 and P104). The modification includes the replacement of the turbine rotors and other components on the Unit 10 and Unit 20 Siemens natural gas-fired combined cycle combustion turbines resulting in heat input and emission increases that will allow for greater fuel heat input and power output.



SECTION A. Table of Contents

Section A. Facility/Source Identification

Table of Contents
Plan Approval Inventory List

Section B. General Plan Approval Requirements

- #001 Definitions
- #002 Future Adoption of Requirements
- #003 Plan Approval Temporary Operation
- #004 Content of Applications
- #005 Public Records and Confidential Information
- #006 Plan Approval Terms and Conditions
- #007 Transfer of Plan Approvals
- #008 Inspection and Entry
- #009 Plan Approval Changes for Cause
- #010 Circumvention
- #011 Submissions
- #012 Risk Management
- #013 Prohibition of Air Pollution
- #014 Compliance Requirement

Section C. Site Level Plan Approval Requirements

- C-I: Restrictions
- C-II: Testing Requirements
- C-III: Monitoring Requirements
- C-IV: Recordkeeping Requirements
- C-V: Reporting Requirements
- C-VI: Work Practice Standards
- C-VII: Additional Requirements
- C-VIII: Compliance Certification
- C-IX: Compliance Schedule

Section D. Source Level Plan Approval Requirements

- D-I: Restrictions
- D-II: Testing Requirements
- D-III: Monitoring Requirements
- D-IV: Recordkeeping Requirements
- D-V: Reporting Requirements
- D-VI: Work Practice Standards
- D-VII: Additional Requirements

Note: These same sub-sections are repeated for each source!

Section E. Source Group Restrictions

- E-I: Restrictions
- E-II: Testing Requirements
- E-III: Monitoring Requirements
- E-IV: Recordkeeping Requirements
- E-V: Reporting Requirements
- E-VI: Work Practice Standards
- E-VII: Additional Requirements

Section F. Alternative Operating Scenario(s)

- F-I: Restrictions
- F-II: Testing Requirements



SECTION A. Table of Contents

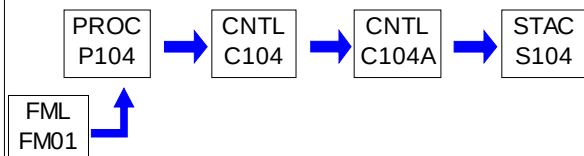
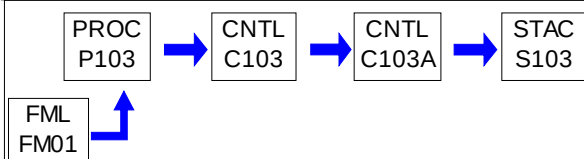
F-III: Monitoring Requirements
F-IV: Recordkeeping Requirements
F-V: Reporting Requirements
F-VI: Work Practice Standards
F-VII: Additional Requirements

Section G. Emission Restriction Summary

Section H. Miscellaneous

**SECTION A. Plan Approval Inventory List**

Source ID	Source Name	Capacity/Throughput	Fuel/Material
P103	490 MW COMBUSTION TURBINE & DUCT BURNER	3,144.000 MMBTU/HR	
P104	490 MW COMBUSTION TURBINE & DUCT BURNER	3,144.000 MMBTU/HR	
C103	SCR		
C103A	OXIDATION CATALYST		
C104	SCR		
C104A	OXIDATION CATALYST		
FM01	NATURAL GAS		
S103	STACK		
S104	STACK		

PERMIT MAPS

**SECTION B. General Plan Approval Requirements****#001 [25 Pa. Code § 121.1]****Definitions**

Words and terms that are not otherwise defined in this plan approval 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 § 127.12b (a) (b)]**Future Adoption of Requirements**

The issuance of this plan approval does not prevent the future adoption by the Department of any rules, regulations or standards, or the issuance of orders necessary to comply with the requirements of the Federal Clean Air Act or the Pennsylvania Air Pollution Control Act, or to achieve or maintain ambient air quality standards. The issuance of this plan approval shall not be construed to limit the Department's enforcement authority.

#003 [25 Pa. Code § 127.12b]**Plan Approval Temporary Operation**

This plan approval authorizes temporary operation of the source(s) covered by this plan approval provided the following conditions are met.

(a) When construction, installation, modification, or reactivation is being conducted, the permittee shall provide written notice to the Department of the completion of the activity approved by this plan approval and the permittee's intent to commence operation at least five (5) working days prior to the completion of said activity. The notice shall state when the activity will be completed and when the permittee expects to commence operation. When the activity involves multiple sources on different time schedules, notice is required for the commencement of operation of each source.

(b) Pursuant to 25 Pa. Code § 127.12b (d), temporary operation of the source(s) is authorized to facilitate the shakedown of sources and air cleaning devices, to permit operations pending the issuance of a permit under 25 Pa. Code Chapter 127, Subchapter F (relating to operating permits) or Subchapter G (relating to Title V operating permits) or to permit the evaluation of the air contaminant aspects of the source.

(c) This plan approval authorizes a temporary operation period not to exceed 180 days from the date of commencement of operation, provided the Department receives notice from the permittee pursuant to paragraph (a), above.

(d) The permittee may request an extension of the 180-day shakedown period if further evaluation of the air contamination aspects of the source(s) is necessary. The request for an extension shall be submitted, in writing, to the Department at least 30 days prior to the end of the initial 180-day shakedown period and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established. This temporary operation period will be valid for a limited time and may be extended for additional limited periods, each not to exceed 180 days.

(e) The notice submitted by the permittee pursuant to subpart (a) above, prior to the expiration of the plan approval, shall modify the plan approval expiration date on Page 1 of this plan approval. The new plan approval expiration date shall be 180 days from the date of commencement of operation.

#004 [25 Pa. Code § 127.12(a) (10)]**Content of Applications**

The permittee shall maintain and operate the sources and associated air cleaning devices in accordance with good engineering practice as described in the plan approval application submitted to the Department.

#005 [25 Pa. Code §§ 127.12(c) and (d) & 35 P.S. § 4013.2]**Public Records and Confidential Information**

(a) The records, reports or information obtained by the Department or referred to at public hearings shall be available to the public, except as provided in paragraph (b) of this condition.

(b) Upon cause shown by the permittee that the records, reports or information, or a particular portion thereof, but not emission data, to which the Department has access under the act, if made public, would divulge production or sales figures or methods, processes or production unique to that person or would otherwise tend to affect adversely the

**SECTION B. General Plan Approval Requirements**

competitive position of that person by revealing trade secrets, including intellectual property rights, the Department will consider the record, report or information, or particular portion thereof confidential in the administration of the act. The Department will implement this section consistent with sections 112(d) and 114(c) of the Clean Air Act (42 U.S.C.A. § 7412(d) and 7414(c)). Nothing in this section prevents disclosure of the report, record or information to Federal, State or local representatives as necessary for purposes of administration of Federal, State or local air pollution control laws, or when relevant in a proceeding under the act.

#006 [25 Pa. Code § 127.12b]**Plan Approval Terms and Conditions**

[Additional authority for this condition is derived from 25 Pa. Code Section 127.13]

(a) This plan approval will be valid for a limited time, as specified by the expiration date contained on Page 1 of this plan approval. Except as provided in § § 127.11a and 127.215 (relating to reactivation of sources; and reactivation), at the end of the time, if the construction, modification, reactivation or installation has not been completed, a new plan approval application or an extension of the previous approval will be required.

(b) If construction has commenced, but cannot be completed before the expiration of this plan approval, an extension of the plan approval must be obtained to continue construction. To allow adequate time for departmental action, a request for the extension shall be postmarked at least thirty (30) days prior to the expiration date. The request for an extension shall include the following:

- (i) A justification for the extension,
- (ii) A schedule for the completion of the construction

If construction has not commenced before the expiration of this plan approval, then a new plan approval application must be submitted and approval obtained before construction can commence.

(c) If the construction, modification or installation is not commenced within 18 months of the issuance of this plan approval or if there is more than an 18-month lapse in construction, modification or installation, a new plan approval application that meets the requirements of 25 Pa. Code Chapter 127, Subchapter B (related to plan approval requirements), Subchapter D (related to prevention of significant deterioration of air quality), and Subchapter E (related to new source review) shall be submitted. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified.

#007 [25 Pa. Code § 127.32]**Transfer of Plan Approvals**

(a) This plan approval may not be transferred from one person to another except when a change of ownership is demonstrated to the satisfaction of the Department and the Department approves the transfer of the plan approval in writing.

(b) Section 127.12a (relating to compliance review) applies to a request for transfer of a plan approval. A compliance review form shall accompany the request.

(c) This plan approval is valid only for the specific source and the specific location of the source as described in the application.

#008 [25 Pa. Code § 127.12(a)(4) & 35 P.S. § 4008 & § 114 of the CAA]**Inspection and Entry**

(a) 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.

(b) The permittee shall also allow the Department to have access at reasonable times 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 and regulations adopted under the act.

**SECTION B. General Plan Approval Requirements**

(c) Nothing in this plan approval condition shall limit the ability of the Environmental Protection Agency to inspect or enter the premises of the permittee in accordance with Section 114 or other applicable provisions of the Clean Air Act.

#009 [25 Pa. Code 127.13a]**Plan Approval Changes for Cause**

This plan approval may be terminated, modified, suspended or revoked and reissued if one or more of the following applies:

(a) The permittee constructs or operates the source subject to the plan approval in violation of the act, the Clean Air Act, the regulations promulgated under the act or the Clean Air Act, a plan approval or permit or in a manner that causes air pollution.

(b) The permittee fails to properly or adequately maintain or repair an air pollution control device or equipment attached to or otherwise made a part of the source.

(c) The permittee fails to submit a report required by this plan approval.

(d) The Environmental Protection Agency determines that this plan approval is not in compliance with the Clean Air Act or the regulations thereunder.

#010 [25 Pa. Code §§ 121.9 & 127.216]**Circumvention**

(a) The permittee, 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 plan approval, 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.

#011 [25 Pa. Code § 127.12c]**Submissions**

Reports, test data, monitoring data, notifications shall be submitted to the:

Regional Air Program Manager

PA Department of Environmental Protection

(At the address given on the plan approval transmittal letter or otherwise notified)

#012 [25 Pa. Code § 127.12(a)(9) & 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 facility. The permittee shall submit the RMP to the Environmental Protection Agency according to the following schedule and requirements:

(1) The permittee shall submit the first RMP to a central point specified by the Environmental Protection Agency no later than the latest of the following:

**SECTION B. General Plan Approval Requirements**

- (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 the Environmental Protection Agency 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 plan approval 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.

#013 [25 Pa. Code § 121.7]**Prohibition of Air Pollution**

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

#014 [25 Pa. Code § 127.25]**Compliance Requirement**

A person may not cause or permit the operation of a source subject to § 127.11 (relating to plan approval requirements), unless the source and air cleaning devices identified in the application for the plan approval and the plan approval issued to the source, are operated and maintained in accordance with specifications in the application and conditions in the plan approval issued by the Department. A person may not cause or permit the operation of an air contamination source subject to this chapter in a manner inconsistent with good operating practices.

**SECTION C. Site Level Plan Approval Requirements****I. RESTRICTIONS.****Emission Restriction(s).****# 001 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall not permit the emission of fugitive air contaminants into the outdoor atmosphere from a source other than the following:

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

- (a) the emissions are of minor significance with respect to causing air pollution; and
- (b) the emissions are not preventing or interfering with the attainment or maintenance of any ambient air quality standard.

002 [25 Pa. Code §123.2]**Fugitive particulate matter**

The permittee shall not permit fugitive particulate matter to be emitted into the outdoor atmosphere from a source specified in (1) through (8) in condition #001 if the emissions are visible at the point the emissions pass outside the permittee's property.

003 [25 Pa. Code §123.41]**Limitations**

The permittee shall not permit the emission of visible air contaminants into the outdoor atmosphere in such a manner that the opacity of the emission is either of the following:

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

004 [25 Pa. Code §123.42]**Exceptions**

The emission limitations in condition #003 shall not apply when:

- (1) The presence of uncombined water is the only reason for failure of the emission to meet the limitations;
- (2) The emission results from the operation of equipment used solely to train and test persons in observing the opacity of visible emissions;
- (3) The emission results from sources specified in condition #001 (1) through (8).

005 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this Condition is derived from Title V operating permit 08-00045]

(a) Pursuant to the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, the individual hazardous air pollutant (HAP) emitted at the facility shall not exceed 10.0 tons in any 12 consecutive month period.

(b) Pursuant to the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, the total facility-wide hazardous air pollutants (HAPs) emitted at the facility shall not exceed 13.0 tons in any 12 consecutive month period.

006 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the best available control technology of the Prevention of Significant Deterioration provisions in 40 CFR Section 52.21 and of 25 Pa. Code Section 127.83 and the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, the combined total sulfur hexafluoride (SF₆) emitted from all of the affected circuit breakers used at the facility shall

**SECTION C. Site Level Plan Approval Requirements**

not exceed 6.3 pounds in any 12 consecutive month period.

II. TESTING REQUIREMENTS.**# 007 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) Pursuant to 25 Pa. Code § 139.3, at least 90 calendar days prior to commencing a EPA reference method testing program, a test protocol shall be submitted to the Department for review and approval. One electronic copy shall be sent to the Northcentral Regional Office Air Quality Program Manager (RA-EPNCstacktesting@pa.gov) and one electronic copy shall be sent to the PSIMS Administrator in Central Office (RA-EPstacktesting@pa.gov). The test protocol shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(b) Pursuant to 25 Pa. Code § 139.3, at least 15 calendar days prior to commencing an emission testing program, notification as to the date and time of testing shall be given to the Northcentral Regional Office. Notification shall also be sent to the Division of Source Testing and Monitoring. Notification shall not be made without prior receipt of a protocol acceptance letter from the Department.

(c) Within sixty (60) days of the completion of the stack tests required by this permit, an electronically submitted copy of the report in .pdf format shall be submitted to the Department. This report shall contain the results of the tests, a description of the testing and analytical procedures actually used in performance of the tests, all process and operating data collected during the tests, a copy of all raw data, and a copy of all calculations generated during data analysis.

(d) Pursuant to 25 Pa. Code § 139.53(b) a complete test report shall include a summary of the emission results on the first page of the report indicating if each pollutant measured is within permitted limits and a statement of compliance or noncompliance with all applicable permit conditions. The summary results will include, at a minimum, the following information:

1. A statement that the owner or operator has reviewed the report from the emissions testing body and agrees with the findings.
2. Permit number(s) and condition(s) which are the basis for the evaluation.
3. Summary of results with respect to each applicable permit condition.
4. Statement of compliance or non-compliance with each applicable permit condition.

(e) Pursuant to 25 Pa. Code § 139.3, all submittals shall meet all applicable requirements specified in the most current version of the Department's Source Testing Manual.

(f) All testing shall be performed in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection.

(g) Pursuant to 25 Pa. Code § § 139.53(a)(1) and 139.53(a)(3), one electronic copy of all submittals, besides notifications, shall be sent to the Northcentral Regional Office Air Quality Program Manager. In addition, one electronic copy shall be sent to the PSIMS Administrator in Central Office using the emails above when the file is 35 MB or less, or a flash drive when the file is over 35 MB.

(h) The permittee shall ensure all federal reporting requirements contained in the applicable subpart of 40 CFR are followed, including timelines more stringent than those contained herein. In the event of an inconsistency or any conflicting requirements between state and the federal, the most stringent provision, term, condition, method or rule shall be used by default.

008 [25 Pa. Code §139.1]**Sampling facilities.**

Upon the request of the Department, the permittee shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance by the Department of tests on a source. The Department will set forth, in the request,

**SECTION C. Site Level Plan Approval Requirements**

the time period in which the facilities shall be provided, as well as the specifications for such facilities.

009 [25 Pa. Code §139.11]**General requirements.**

(1) As specified in 25 Pa. Code Section 139.11(1), performance tests shall be conducted while the respective source is operating at maximum routine operating conditions or under such other conditions, within the capacity of the equipment, as may be requested by the Department.

(2) As specified in 25 Pa. Code Section 139.11(2), the Department will consider test results for approval where sufficient information is provided to verify the source conditions existing at the time of the test and where adequate data is available to show the manner in which the test was conducted. Information submitted to the Department shall include, at a minimum all of the following:

- (a) A thorough source description, including a description of any air cleaning devices and the flue.
- (b) Process conditions, for example, the charging rate of raw material or rate of production of final product, boiler pressure, oven temperature, and other conditions which may affect emissions from the process.
- (c) The location of the sampling ports.
- (d) Effluent characteristics, including velocity, temperature, moisture content, gas density (percentage CO, CO₂, O₂ and N₂), static and barometric pressures.
- (e) Sample collection techniques employed, including procedures used, equipment descriptions and data to verify that isokinetic sampling for particulate matter collection occurred and that acceptable test conditions were met.
- (f) Laboratory procedures and results.
- (g) Calculated results.

III. MONITORING REQUIREMENTS.**# 010 [25 Pa. Code §123.43]****Measuring techniques**

Visible emissions may be measured using either of the following:

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

011 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

(a) The permittee shall conduct a daily inspection of the facility during daylight hours while the facility is operating to detect visible emissions, visible fugitive emissions, and malodors. Daily inspections are necessary to determine:

- (1) The presence of visible emissions.
- (2) The presence of visible fugitive emissions.
- (3) The presence of malodors beyond the boundaries of the facility.

(b) All detected visible emissions, visible fugitive emissions, or malodors that have the potential to exceed applicable limits shall be reported to the manager of the facility.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

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

(a) The permittee shall keep a comprehensive and accurate logbook of the daily facility inspections performed. The logbook shall include records of instances of visible emissions, visible fugitive emissions and malodorous air emissions, the name of the company representative monitoring these instances, the date and time of each occurrence, and the wind

**SECTION C. Site Level Plan Approval Requirements**

direction during each instance.

(b) All records generated pursuant to this permit condition shall be retained for a minimum of five (5) years and shall be made available to the Department upon request.

V. REPORTING REQUIREMENTS.**# 013 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

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

014 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 25 Pa. Code Section 127.442]

(a) The permittee shall report malfunctions, emergencies or incidents of excess emissions to the Department. A malfunction is any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. An emergency is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator of a facility which requires immediate corrective action to restore normal operation and which causes the emission source to exceed emissions, due to unavoidable increases in emissions attributable to the situation. An emergency shall not include situations caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(b) When the malfunction, emergency or incident of excess emissions poses an imminent danger to the public health, safety, welfare, or environment, it shall be reported to the Department and the County Emergency Management Agency by telephone within one (1) hour after the discovery of the malfunction, emergency or incident of excess emissions. The owner or operator shall submit a written or emailed report of instances of such malfunctions, emergencies or incidents of excess emissions to the Department within three (3) business days of the telephone report.

(c) The report shall describe the following:

1. name, permit or authorization number, and location of the facility,
2. nature and cause of the malfunction, emergency or incident,
3. date and time when the malfunction, emergency or incident was first observed,
4. expected duration of excess emissions,
5. estimated rate of emissions,
6. corrective actions or preventative measures taken.

(d) Any malfunction, emergency or incident of excess emissions that is not subject to the notice requirements of paragraph (b) of this condition shall be reported to the Department by telephone within 24 hours (or by 4:00 PM of the next business day, whichever is later) of discovery and in writing or by e-mail within five (5) business days of discovery. The report shall contain the same information required by paragraph (c), and any permit specific malfunction reporting requirements.

(e) During an emergency an owner or operator may continue to operate the source at their discretion provided they submit justification for continued operation of a source during the emergency and follow all the notification and reporting requirements in accordance with paragraphs (b)-(d), as applicable, including any permit specific malfunction reporting requirements.

(f) Reports regarding malfunctions, emergencies or incidents of excess emissions shall be submitted to the appropriate DEP Regional Office Air Program Manager.

(g) Any emissions resulted from malfunction or emergency are to be reported in the annual emissions inventory report, if the annual emissions inventory report is required by permit or authorization.

**SECTION C. Site Level Plan Approval Requirements****# 015 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

(a) The permittee shall submit the annual compliance certifications to the Department and EPA Region III, as specified in Condition #026 of Section B, General Title V Requirements, no later than September 1 (from July 1 of the previous year through June 30 of the current year). The following email address shall be used to submit the compliance certifications to EPA Region III:

R3_APD_Permits@epa.gov

(b) The permittee shall submit the semiannual reports of required monitoring to the Department, as specified in Condition #025 of Section B, General Title V Requirements, no later than September 1 (for January 1 through June 30) and March 1 (for July 1 through December 31 of the previous year).

016 [25 Pa. Code §135.21]**Emission statements**

(a) The permittee shall provide the Department an Air Information Management System (AIMS) emission report of each stationary source in a form prescribed by the Department, showing the actual emissions of oxides of nitrogen and volatile organic compounds (VOCs) from the permitted facility for each reporting period, a description of the method used to calculate the emissions and the time period over which the calculation is based.

(b) The annual Air Information Management System (AIMS) emission report is due by March 1 for the preceding calendar year and shall contain a certification by a company officer or the plant manager that the information contained in the statement is accurate. The permittee shall provide data consistent with requirements and guidance developed by the EPA.

(c) The Department may require more frequent submittals if the Department determines that one or more of the following applies:

(1) A more frequent submission is required by the EPA.

(2) Analysis of the data on a more frequent basis is necessary to implement the requirements of the Air Pollution Control Act.

017 [25 Pa. Code §135.3]**Reporting**

The permittee shall maintain and make available upon request of the Department such records, including computerized records that may be necessary to comply with 25 Pa. Code Section 135.3. These 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.

All records generated pursuant to this condition shall be retained for a minimum of five years and be made available to the Department upon request.

018 [25 Pa. Code §135.3]**Reporting**

(a) A person who owns or operates a source to which 25 Pa. Code Chapter 135 applies, and who has previously been advised by the Department to submit an annual Air Information Management Systems (AIMS) report, shall submit by March 1 of each year an AIMS report for the preceding calendar year. The report shall include information for all previously reported sources, new sources which were first operated during the proceeding calendar year and sources modified during the same period which were not previously reported.

(b) A person who receives initial notification by the Department that an annual AIMS report is necessary, shall submit an initial annual AIMS report within 60 days after receiving the notification or by March 1 of the year following the year for which the report is required, whichever is later.

(c) A source owner or operator may request an extension of time from the Department for the filing of an annual AIMS report, and the Department may grant the extension for reasonable cause.

**SECTION C. Site Level Plan Approval Requirements****VI. WORK PRACTICE REQUIREMENTS.****# 019 [25 Pa. Code §123.1]****Prohibition of certain fugitive emissions**

The permittee shall take all reasonable actions to prevent particulate matter from becoming airborne from any source specified in (1) through (8) in condition #001 herein. 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.

VII. ADDITIONAL REQUIREMENTS.**# 020 [25 Pa. Code §121.7]****Prohibition of air pollution.**

The permittee shall not permit air pollution as that term is defined in the Pennsylvania Air Pollution Control Act (35 P.S. §§ 4001-4015).

021 [25 Pa. Code §123.31]**Limitations**

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

022 [25 Pa. Code §129.14]**Open burning operations**

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

VIII. COMPLIANCE CERTIFICATION.

No additional compliance certifications exist except as provided in other sections of this plan approval including Section B (relating to Plan Approval General Requirements).

IX. COMPLIANCE SCHEDULE.

No compliance milestones exist.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: P103

Source Name: 490 MW COMBUSTION TURBINE & DUCT BURNER

Source Capacity/Throughput: 3,144.000 MMBTU/HR

Conditions for this source occur in the following groups: POWERBLOCKS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID P103 is one 490 MW Siemens model SGT6-8000H natural-gas-fired combined-cycle combustion turbine unit where the combustion turbine unit consists of a 3,016 MMBtu/hr (HHV) and 2,717 MMBtu/hr (LHV) combustion turbine and heat recovery steam generator with 164 MMBtu/hr (HHV) and 148 MMBtu/hr (LHV) duct burner. The air contaminants are controlled by selective catalytic reduction unit and an oxidation catalyst.

**SECTION D. Source Level Plan Approval Requirements**

Source ID: P104

Source Name: 490 MW COMBUSTION TURBINE & DUCT BURNER

Source Capacity/Throughput: 3,144.000 MMBTU/HR

Conditions for this source occur in the following groups: POWERBLOCKS

**I. RESTRICTIONS.**

No additional requirements exist except as provided in other sections of this plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval 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 plan approval including Section B (Plan Approval General Requirements) and/or Section E (Source Group Restrictions).

VII. ADDITIONAL REQUIREMENTS.

001 [25 Pa. Code §127.12b]

Plan approval terms and conditions.

Source ID P104 is one 490 MW Siemens model SGT6-8000H natural-gas-fired combined-cycle combustion turbine unit where the combustion turbine unit consists of a 3,016 MMBtu/hr (HHV) and 2,717 MMBtu/hr (LHV) combustion turbine and heat recovery steam generator with 164 MMBtu/hr (HHV) and 148 MMBtu/hr (LHV) duct burner. The air contaminants are controlled by selective catalytic reduction unit and an oxidation catalyst.

**SECTION E. Source Group Plan Approval Restrictions.**

Group Name: POWERBLOCKS

Group Description:

Sources included in this group

ID	Name
P103	490 MW COMBUSTION TURBINE & DUCT BURNER
P104	490 MW COMBUSTION TURBINE & DUCT BURNER

I. RESTRICTIONS.**Emission Restriction(s).****# 001 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Pursuant to the lowest achievable emission rate of the New Source Review Regulation provisions in 25 Pa. Code Sections 127.201 through 127.217 and the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, emissions from the operation of each combined cycle powerblock shall not exceed the limits specified below:

- Oxides of nitrogen (as NO₂): 2.0 ppm_{dv} and 24.7 lb/hr
- Volatile organic compounds: 0.7 ppm_{dv} (without duct burner firing) and 1.2 ppm_{dv} (with duct burner firing), as propane.
- ppm_{dv} = parts per million volume on a dry gas basis, corrected to 15 percent O₂
- The nitrogen oxides, carbon monoxide and ammonia emissions limits shall be established as one-hour period.
- Unless otherwise specified herein, the above emissions limits shall apply at all times except for periods of startup and shutdown.

002 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the lowest achievable emission rate of the New Source Review Regulation provisions in 25 Pa. Code Sections 127.201 through 127.217 and the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, emissions from the operation of each combined cycle powerblock shall not exceed:

- 85.3 tons of nitrogen oxides in any 12 consecutive month period,
- 17.1 tons of volatile organic compounds in any 12 consecutive month period,
- 1,431,580 tons of greenhouse gases (expressed as CO₂e) in any 12 consecutive month period,
- The emissions limits specified in this condition apply at all times including periods of startup and shutdown.

003 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the best available control technology of the Prevention of Significant Deterioration provisions in 40 CFR Section 52.21 and of 25 Pa. Code Section 127.83, and as established in Title V operating permit 08-00045, the emission of visible air contaminants from the operation of each combined-cycle powerblock shall not be in excess of 10% opacity for any 3-minute block period for normal operation and 10% opacity for any 6-minute block period for startups/shutdowns.

004 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the best available technology requirements of 25 Pa. Code Section 127.1 and 127.12:

- The heat input limit for each of the combined-cycle turbines shall not exceed 6668 Btu/kW-hr (lower heating value), calculated on a 12-month rolling basis, without duct burner firing and excluding startup or shutdown.
- The pound of carbon dioxide emitted per gross power output shall not exceed 1,000 lb of CO₂ per MW-hour. Calculations shall conform to the applicable 40 CFR Part 60 Subpart TTTT methodology.

Operation Hours Restriction(s).**# 005 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

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

**SECTION E. Source Group Plan Approval Restrictions.**

(a) The durations of startups and shutdowns shall be minimized to the extent practicable.

(b) Startup and shutdown shall be accomplished as follows:

- i. Startup is identified as the period between the commencement of ignition and when the Siemens combined-cycle combustion turbine unit reaches 60 percent operating level, or the following emission limits are all met simultaneously: Nitrogen oxides (expressed as NO₂) emissions are 2.0 ppmv or less, Carbon monoxide emissions are 2.0 ppmv or less, and the NH₃ slip emissions are 5 ppmv or less all corrected to 15 percent O₂.
- ii. Shutdown is identified as the period between the time that the Siemens combined-cycle combustion turbine unit drops below 60 percent operating level and the fuel is cut to the unit. Shutdowns shall not exceed 30 minutes in duration. Steady state operation below 60 percent operating level when compliance with the following limits are all met simultaneously: Nitrogen oxides (expressed as NO₂) emissions are 2.0 ppmv or less, Carbon monoxide emissions are 2.0 ppmv or less, and the NH₃ slip emissions are 5 ppmv or less all corrected to 15 percent O₂, does not constitute shutdown.
- iii. Cold start is identified as a restart occurring 72 hours or more after shutdown and shall not exceed 105 minutes in duration.
- iv. Warm start is identified as a restart occurring between 12 hours to 72 hours after shutdown and shall not exceed 90 minutes in duration.
- v. Hot start is identified as a restart occurring less than 12 hours after shutdown and shall not exceed 75 minutes duration.

(c) The permittee shall record the time, date and duration of each startup and shutdown as well as the reason for each startup and shutdown.

II. TESTING REQUIREMENTS.**# 006 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall conduct post-project completion EPA reference method testing within 180 days of the startup of each combined cycle powerblock and subsequent testing every two years from the previous tests for nitrogen oxides, carbon monoxide, ammonia slip, volatile organic compounds, sulfur oxides (SO₂), sulfuric acid mist, total PM, total PM₁₀, total PM_{2.5}, hexane and formaldehyde as well as keep record of the monthly emissions of sulfur oxides (SO₂), sulfuric acid mist, total PM, total PM₁₀, total PM_{2.5}, hexane and formaldehyde to quantify emission rates and verify compliance for those pollutants for which the plan approval sets specific emission limits.

007 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Additional authority for this permit condition is derived from 40 CFR Part 60, Subpart KKKK, Sections 60.4300-60.4420]

The permittee shall comply with the applicable testing requirements specified in 40 CFR Sections 60.4400, 60.4405, and 60.4415.

III. MONITORING REQUIREMENTS.**# 008 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The permittee shall continue to maintain and operate continuous emission monitoring systems (CEMS) for nitrogen oxides, carbon monoxide, and ammonia emissions on the exhaust of each combined cycle powerblock in accordance with all applicable requirements specified in 25 Pa. Code Chapter 139 and the Department's "Continuous Source Monitoring Manual."

009 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the best available technology requirements of 25 Pa. Code Section 127.1 and 127.12 and/or as established in Title V operating permit 08-00045:

- a. the inlet temperature, outlet temperature, and pressure differential across the SCR catalyst shall be monitored and recorded on a continuous basis. Visual and audible alarms shall be utilized to indicate improper operation, the pre-control and post-control NO_x emissions shall be monitored by the feed-forward process control loop to ensure maximum control efficiency and minimum NH₃ slip,
- b. the pressure differential across the oxidation catalyst as well as the catalyst inlet and outlet temperatures shall be

**SECTION E. Source Group Plan Approval Restrictions.**

monitored and recorded on a continuous basis (1-hour average). Visual and audible alarms shall be utilized to indicate improper operation. The pressure differential and temperature ranges will be established based upon the recorded data and the stack testing, an oxygen monitor shall be in each stack to monitor oxygen levels to ensure maximum combustion efficiency,

c. high efficiency inlet air filters shall be used in the air inlet section of each combined cycle powerblock, the permittee shall monitor and record the pressure differential across the inlet air filters on a weekly basis,

d. all air-contaminant sources and control devices shall be maintained and operated in a manner consistent with good air pollution control practices and in accordance with the manufacturer's recommendations as well as manufacturer's maintenance plan.

010 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR Part 60, Subpart KKKK, Sections 60.4300-60.4420]

The permittee shall comply with all applicable SO₂ monitoring requirements specified in 40 CFR Section 60.4360, 60.4365, and 60.4370.

011 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR Part 60, Subpart KKKK, Sections 60.4300-60.4420]

The permittee shall comply with all applicable monitoring requirements specified in 40 CFR Sections 60.4340, 60.4345, and 60.4350.

IV. RECORDKEEPING REQUIREMENTS.**# 012 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Pursuant to the best available technology requirements of 25 Pa. Code Section 127.1 and 127.12, and Title V operating permit 08-00045, the permittee shall continue to monitor and keep records of the amount of fuel used each month in each of the combined cycle powerblocks as well as the monthly heat input and hours of operation.

All information to satisfy this recordkeeping requirement shall be kept for a minimum of five (5) years and shall be made available to the Department upon request.

013 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the Prevention of Significant Deterioration provisions in 40 CFR Section 52.21 and of 25 Pa. Code Section 127.83, and New Source Review Regulation provisions in 25 Pa. Code Sections 127.201 through 127.217, the permittee shall calculate emission increases related to the project and maintain records thereof for not less than ten (10) years after project commencement of operation to verify that the project increases do not exceed the significance emission rate thresholds established in these regulations.

V. REPORTING REQUIREMENTS.**# 014 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

[Additional authority for this permit condition is derived from 40 CFR Part 60, Subpart KKKK, Sections 60.4300-60.4420]

The permittee shall comply with the reporting requirements specified in 40 CFR Sections 60.4375 and 60.4380.

015 [40 CFR Part 98 Mandatory Greenhouse Gas Reporting §40 CFR 98.1]**Subpart A - General Provision****Purpose and scope.**

The permittee shall comply with the applicable requirements of 40 CFR Part 98.

VI. WORK PRACTICE REQUIREMENTS.**# 016 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

Pursuant to the best available technology requirements of 25 Pa. Code Section 127.1 and 127.12, the permittee shall operate and maintain the stationary combustion turbine, air pollution control equipment, and monitoring equipment

**SECTION E. Source Group Plan Approval Restrictions.**

associated with Source ID P103 as well as Source ID P104 in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunctions pursuant to 40 CFR Section 60.4333.

VII. ADDITIONAL REQUIREMENTS.**# 017 [25 Pa. Code §127.12b]****Plan approval terms and conditions.**

The Department will evaluate the actual emission rates and reserves the right to propose revised allowable emission limitations based upon demonstrated performance (CEMS data, stack tests results), and/or subsequently promulgated applicable requirements during the first five years of operation after project completion. Any revision of the allowable emission limitations shall be accomplished by a permit modification provided that the revised allowable emission limitations do not exceed levels at which the lowest achievable emission rate (LAER), best available control technology (BACT) and best available technology (BAT) were evaluated, and do not exceed the level at which the facility impacts were modeled.

018 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall comply with the applicable requirements of 40 CFR Part 97.

019 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall commence construction of the proposed physical changes to the turbine rotor, stator, and exhaust casing and modifications to the compressor, combustor and turbine sections project as described and specified in the plan approval application and supplemental documents and correspondence, modifying each of the two Siemens SGT6-8000H lean premix DLN natural-gas-fired CTs with STs, where each CT and ST train are configured in a single shaft alignment and drive one common electric generator whereby they will be identified as Siemens SGT6-8000H v1.6 units. Each unit will be equipped with natural-gas-fired DBs and HRSGs. Each Siemens train will be capable of producing up to approximately 490 MW of electricity. The maximum heat input rating of each CT is 3016 MMBtu/hr (HHV) and 2717 MMBtu/hr (LHV). Each DB will continue to have its present maximum heat input rating of 164 MMBtu/hr (HHV) and 148 MMBtu/hr (LHV).

020 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

The permittee shall comply with all requirements of TVOP 08-00045. If the requirements in this plan approval conflict with the requirements in TVOP 08-00045, the requirements in this plan approval shall supersede those in TVOP 08-00045 when more stringent. Nothing in this plan approval relieves the permittee from complying with the requirements in TVOP 08-00045 that are not in conflict with the requirements in this plan approval.

021 [25 Pa. Code §127.12b]**Plan approval terms and conditions.**

Pursuant to the best available control technology of the Prevention of Significant Deterioration provisions in 40 CFR Section 52.21 and of 25 Pa. Code Section 127.83 and the lowest achievable emission rate of the New Source Review Regulation provisions in 25 Pa. Code Sections 127.201 through 127.217 as well as the best available technology provisions in 25 Pa. Code Sections 127.1 and 127.12, each combustion turbine associated with a powerblock shall be equipped with dry-low-NOx (DLN) combustors.

022 [25 Pa. Code §145.204.]**Incorporation of Federal regulations by reference.**

The permittee shall comply with the applicable requirements of 40 CFR Part 96 and 25 Pa. Code Chapter 145 Subchapter D.

023 [40 CFR Part 60 Standards of Performance for New Stationary Sources §40 CFR 60.4300]**Subpart KKKK - Standards of Performance for Stationary Combustion Turbines****What is the purpose of this subpart?**

The combustion turbines, heat recovery steam generators and duct burners associated with each combined cycle powerblock shall comply with all applicable requirements of Subpart KKKK of the Standards of Performance for New Stationary Sources, 40 CFR 60.4300 through 60.4420 (Standards of Performance for Stationary Combustion Turbines).

**SECTION E. Source Group Plan Approval Restrictions.**

024 [40 CFR Part 98 Mandatory Greenhouse Gas Reporting §40 CFR 98.40]

SUBPART D - Electricity Generation

Definition of the source category.

The facility shall comply with the requirements in 40 CFR Part 98 Subpart D, (40 CFR §§ 98.40 through 98.48).

**SECTION F. Alternative Operation Requirements.**

No Alternative Operations exist for this Plan Approval facility.

**SECTION G. Emission Restriction Summary.**

No emission restrictions listed in this section of the permit.



SECTION H. Miscellaneous.



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