AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT

DOCKET # 24-510-0265

COMPANY: Constellation Power Source Group
CPSG, LLC. – Philadelphia Road

LOCATION: 3914 Pulaski Highway
Baltimore, MD 21224

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MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
AIR QUALITY PERMITS PROGRAM

TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

Public Participation Process

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

Applicant Objection to Permit Issuance and Recourse

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating permit, the applicant at 15 days from receipt of the issued permit to request a contested case hearing ring. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION

NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by Constellation Power Source Generation, LLC for the Philadelphia Road Generating Station located in Baltimore City. The facility includes four identical General Electric combustion turbines rated at 16 MW each, burning No.2 fuel oil to generate electricity. The combustion turbines are each rated at 16 megawatts.

The applicant is represented by:

Mr. Paul Weeks, VP Regional Operations
Constellation Power Source Generation, LLC
100 Constellation Way
Baltimore, MD 21202

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the application, draft permit, and supporting documentation is available for review on the Department's website, under the Air Quality Permitting Page's Title V link under "Draft Title V Permits" and may be viewed here:

https://tinyurl.com/DraftTitleV

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

1) The name, mailing address, and telephone number of the person making the request;

2) The names and addresses of any other persons for whom the person making the request if representing; and

3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey via email at Shannon.heafey@maryland.gov or by post at Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720. Further information may be obtained by calling Ms. Shannon Heafey at (410) 537-4433.

DRAFT PERMIT

Governor
Wes Moore

Secretary
Serena McIlwain

Air and Radiation Administration

1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

☐ Construction Permit ☒ Part 70 Operating Permit

PERMIT NO.:
24-510-0265

DATE ISSUED:

PERMIT FEE:
To Be Paid in Accordance with COMAR 26.11.02.19B

EXPIRATION DATE:
November 30, 20XX

LEGAL OWNER & ADDRESS
Constellation Power Source Generation, LLC.
100 Constellation Way, Suite 500C
Baltimore, MD 21202

Attention: Mr. Paul Weeks, VP Regional Operations

SITE
CPSG, LLC. – Philadelphia Road
3914 Pulaski Highway
Baltimore, MD 21224

Baltimore City
AI # 5618

SOURCE DESCRIPTION

One (1) Electric Generating Station

This source is subject to the conditions described on the attached pages.

Program Manager

Director, Air and Radiation Administration

CONSTELLATION POWER SOURCE GENERATION, LLC
PHILADELPHIA ROAD GENERATING STATION
3914 PULASKI HIGHWAY
BALTIMORE, MD 21224
DRAFT PART 70 OPERATING PERMIT NO. 24-510-0265

CONSTELLATION POWER SOURCE GENERATION, LLC
PHILADELPHIA ROAD GENERATING STATION
3914 PULASKI HIGHWAY
BALTIMORE, MD 21224
DRAFT PART 70 OPERATING PERMIT NO. 24-510-0265

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Constellation Power Source Generating, LLC - Philadelphia Road Generating Station is an electric generating station, which generates electricity during peak load demand periods. The primary SIC for this facility is 4911.

The Philadelphia Road Generating Station is located in the eastern Baltimore City at 3914 Pulaski Highway at the southwest corner of Monument and Haven Streets. The facility consists of four (4) identical General Electric combustion turbines, rated at 16 MW each, that fires No.2 fuel oil fired to generate electricity.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
PR-Unit 1 CT	510-4-0431	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT1-EP1).	Dec. 1969
PR-Unit 2 CT	510-4-0432	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT2-EP1).	Dec. 1969
PR-Unit 3 CT	510-4-0433	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT3-EP1).	Dec. 1969
PR-Unit 4 CT	510-4-0434	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258	Dec. 1969

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
		MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT4-EP1).	

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification

SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This

information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal,

including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically

identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date

specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.157.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping, and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. [**Reference: COMAR 26.11.03.06C(5)(g)**]

Table IV – 1	
1.0	**Emissions Unit Number(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT and PR-Unit 4 CT: Combustion Turbines** **PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT:** Four (4) General Electric Combustion turbines fired with No. 2 fuel oil, and each has a maximum heat input of 258-MMBtu/hr. [**510-4-0431 thru 510-4-0434**]
1.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **COMAR 26.11.09.05** - Visible Emissions. "**A**. Fuel Burning Equipment. (**2**) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. (**3**) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

Table IV – 1	
	(a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period." B. Control of Sulfur Oxides **COMAR 26.11.09.07**: Control of Sulfur Oxides From Fuel Burning Equipment. "A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (**2**) In Areas III and IV: (**b**) **Distillate fuel oils, 0.3 percent.**" C. Control of Nitrogen Oxides: **COMAR 26.11.09.08G** - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent. "(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request; (d) – (e) *Not applicable* (2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_X emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. " D. Operational Limit: The Permittee shall only burn No. 2 fuel oil unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. **[Reference: COMAR 26.11.02.09A].**

Table IV – 1	
1.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirement. B. Control of Sulfur Oxides See Monitoring Requirement. C. Control of Nitrogen Oxides The Permittee shall perform a combustion analysis and optimize combustion at least once annually when the turbines operate for more than 500 hours in a calendar year**. [Reference: COMAR 26.11.09.08G(1)(b)]**. If the Permittee operates a turbine in excess of 15 percent capacity factor, the Permittee shall demonstrate compliance with the 65-ppm limit by performing an EPA Reference Method Test within 120 days after exceeding the 15 percent capacity factor. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. **[Reference: COMAR 26.11.03.06C].** D. Operational Limit See Record Keeping Requirement.
1.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall: (a) properly operate and maintain the combustion turbines in a manner to prevent visible emissions; (b) verify no visible emissions when burning No.2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of stack emissions for a 6-minute period once for each 168 hours a combustion turbine operates. The Permittee shall perform the following if visible emissions are observed: (a) inspect combustion turbine operations; (b) perform all necessary adjustments and/or repairs to the combustion turbine within 48 operating hours so that visible emissions are eliminated; (c) document in writing the results of the inspections, adjustments and/or repairs to the combustion turbine; and (d) if the required adjustments and/or repairs had not eliminated the visible emissions within the stipulated 48 operating hours, the

Table IV – 1	
	Permittee shall perform a Method 9 observation once daily for 18 minutes until corrective action has eliminated the visible emissions. **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil or obtain sulfur in fuel analyses of oil that is representative of the oil burned. **[Reference: COMAR 26.11.03.06C]** C. Control of Nitrogen Oxides The Permittee shall calculate the capacity factor of each combustion turbine at the end of each month. **[Reference: COMAR 26.11.03.06C]**. D. Operational Limit See Record Keeping Requirement.
1.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions The Permittee shall maintain for at least five years the following: (a) an operation manual and preventive maintenance plan; (b) records of maintenance performed on the combustion turbines that relate to preventing visible emissions; (c) log of visible emission observations performed and make it available to the Department's representative upon request, and (d) record of the hours that No. 2 fuel oil is burned. **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides The Permittee shall maintain records of fuel supplier's certification or sulfur in fuel analyses and shall make records available to the Department upon request. **[Reference: COMAR 26.11.09.07C].** C. Control of Nitrogen Oxides The Permittee shall: (1) maintain the results of the combustion analysis performed when the hours of operation exceeds 500 hours. [**Reference: COMAR 26.11.09.08G(1)(c)].**

Table IV – 1	
	(2) retain records of training program attendance for each operator for at least 5 years. **[Reference: COMAR 26.11.09.08G(1)(e)].** (3) retain records of the calculated capacity factors. **[Reference: COMAR 26.11.03.06C].** D. Operational Limit The Permittee shall maintain a record of the hours of operation for each combustion turbine. **[Reference: COMAR 26.11.03.06C].**
1.5	**Reporting Requirements:** A. Control of Visible Emissions The Permittee shall report incidents of visible emissions in accordance with Section III Condition 4 "Report of Excess Emissions and Deviations" **[Reference: COMAR 26.11.01.07 & COMAR 26.11.03.06C(7)]** B. Control of Sulfur Oxides The Permittee shall report fuel supplier certification or a copy of the sulfur in fuel analyses to the Department upon request. **[Reference: COMAR 26.11.09.07C].** C. Control of Nitrogen Oxides The Permittee shall: (1) provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [**Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]** (2) submit a record of the training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e)].** D. Operational Limit The Permittee shall report the monthly hours of operation for the combustion turbines to the Department in the annual emission certification report due on April 1 of each year. [**Reference: COMAR 26.11.03.06C]**

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above.

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(2) ✓ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(3) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 4 Storage of lubricating oils;

(c) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(e) No. 2 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(4) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

Applicable Regulations:

COMAR 26.11.06.08 - Nuisance
"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

COMAR 26.11.06.09 - Odors
"A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

CONSTELLATION POWER SOURCE GENERATION, LLC
PHILADELPHIA ROAD GENERATING STATION
PERMIT NO. 24-510-0265
PART 70 OPERATING PERMIT FACT SHEET
DRAFT 2022

BACKGROUND

Constellation Power Source Generating, LLC - Philadelphia Road Generating Station is an electric generating station, which generates electricity during peak load demand periods. The primary SIC for this facility is 4911.

The Philadelphia Road Generating Station is located in eastern Baltimore City at 3914 Pulaski Highway at the southwest corner of Monument and Haven Streets. The facility consists of four (4) identical General Electric combustion turbines, rated at 16 MW each, that fires No.2 fuel oil fired to generate electricity.

The combustion turbines are each rated at 16 megawatts and are typically operated less than 60 days per year during peak electricity demand. The combustion turbines were all installed in December 1969, prior to the NSPS applicable date of October 3, 1977, and the turbines have not been modified or reconstructed since October 3, 1977. Therefore, the combustion turbines are not subject to the NSPS standards found in 40 CFR 60 Subpart GG or Subpart KKKK.

The combustion turbines are also not subject to 40 CFR Part 63, Subpart YYYY – NESHAP for Stationary Combustion Turbines, because the Philadelphia Road Generating Station is not a major HAP source.

The Philadelphia Road Generating Station is not subject to the Title IV Acid Rain Program.

The following table summarizes the actual emissions from Philadelphia Road Generating Station based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2021	20.3	0.4	0.2	0.1	0.02	0.0149
2020	18.9	1.3	0.1	0.1	0.01	0.0139
2019	8.6	0.1	0.1	0.1	0.01	0.0063
2018	22.0	0.2	0.17	0.13	0.02	0.0160
2017	6.4	0.1	0.05	0.04	0.00	N/A

The major source threshold for triggering Title V permitting requirements in Baltimore City is 25 tons per year for VOC, 25 tons for NO_X, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per

year for total HAPS. Since the potential NO_X emission from the facility are greater than the major source threshold, Philadelphia Road Generating Station is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

As a potential major source of NO_X, this facility is also subject to requirements of Reasonably Available Control Technology (RACT) for NO_X found in COMAR 26.11.09.08.

On August 23, 2022, the Department received the Philadelphia Road Generating Station's Part 70 renewal permit application. An administrative completeness review was conducted, and the application was deemed to be administratively complete. A completeness determination letter was sent to Philadelphia Road Generating Station on August 30, 2022, granting Philadelphia Road Generating Station an application shield.

COMPLIANCE ASSURANCE MONITORING (CAM)

CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have post-control emissions of at least 100% of the major source amount (for initial CAM submittals); and must not otherwise be exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emission unit.

Philadelphia Road Generating Station conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that the facility is not subject to the (CAM) Rule 40 CFR Subpart 64.

GREENHOUSE GAS (GHG) EMISSIONS

Philadelphia Road Generating Station emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from the fuel oil combusted in the CTs. The facility is not a major source (threshold: 100,000-tpy CO_2e) of GHG emissions and has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements.

The following table summarizes the actual emissions from Philadelphia Road Generating Station based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2019 tpy CO_2e	2020 tpy CO_2e	2021 tpy CO_2e
Carbon dioxide CO_2	1	2,538	5,589	6,002
Methane CH_4	25	0.1	0.2	0.2
Nitrous Oxide N_2O	298	0.02	0.05	0.05
Total GHG CO_{2eq}		**2546.46**	**5,608.9**	**6,021.9**

EMISSION UNIT IDENTIFICATION

Philadelphia Road Generating Station has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
PR-Unit 1 CT	510-4-0431	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are	Dec. 1969

Emissions Unit Number	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
		discharged through a single stack (Emission Point: PR Unit CT1-EP1).	
PR-Unit 2 CT	510-4-0432	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT2-EP1).	Dec. 1969
PR-Unit 3 CT	510-4-0433	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT3-EP1).	Dec. 1969
PR-Unit 4 CT	510-4-0434	One (1) General Electric Combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr. and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT4-EP1).	Dec. 1969

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to

construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Emission Unit Number(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT and PR-Unit 4 CT: Combustion Turbines

PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT: Four (4) General Electric Combustion turbines fired with No. 2 fuel oil, and each has a maximum heat input of 258-MMBtu/hr. [**510-4-0431 thru 510-4-0434**]

Compliance Status:
During the full compliance inspection conducted on June 22, 2021, no units were operating. Year to date through June 2021, the units have operated about 45 hours each this year.
Review of records indicate that the units have burned only No.2 fuel oil and fuel sulfur certifications show that the sulfur content in the distillate fuel oil was 121 ppm (0.0121%). The six-month reports were received, and no deviations were reported. Based on the CY2020 & CY2021 Emission Certification Report, the CTs operated in 2020 and 2021 as follows:

Emission Units	**Operating Hours**		**Capacity Factor (%)**	
	2020	**2021**	**2020**	**2021**
PR-Unit 1-CT	81.5	84.5	0.7	1.0
PR-Unit 2-CT	74	85	0.6	1.0
PR-Unit 3-CT	81	84.2	0.7	1.0
PR-Unit 4-CT	68	84.2	0.6	1.0

None of the units operated for more than 100 hours in 2020, therefore no visible emission tests were required. A VE observation was conducted on January 25, 2021, on **PR-Unit 1 CT**, no visible emissions was observed. The operating hours were less than 500 for each unit, so combustion analysis is not required. Also, the capacity factor is less than 15%, therefore a NO_X emission testing was not required,

Applicable Standards/Limits

A. Control of Visible Emissions
COMAR 26.11.09.05 - Visible Emissions.
"**A**. Fuel Burning Equipment.
(**2**) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.
(**3**) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period."

Compliance Demonstration

The Permittee shall:
(a) properly operate and maintain the combustion turbines in a manner to prevent visible emissions;

(b) verify no visible emissions when burning No.2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of stack emissions for a 6-minute period once for each 168 hours a combustion turbine operates.

The Permittee shall perform the following if visible emissions are observed:

(a) inspect combustion turbine operations;
(b) perform all necessary adjustments and/or repairs to the combustion turbine within 48 operating hours so that visible emissions are eliminated;
(c) document in writing the results of the inspections, adjustments and/or repairs to the combustion turbine; and
(d) if the required adjustments and/or repairs had not eliminated the visible emissions within the stipulated 48 operating hours, the Permittee shall perform a Method 9 observation once daily for 18 minutes until corrective action has eliminated the visible emissions.

The Permittee shall maintain for at least five years the following:

(a) an operation manual and preventive maintenance plan;
(b) records of maintenance performed on the combustion turbines that relate to preventing visible emissions;
(c) log of visible emission observations performed and make it available to the Department's representative upon request, and
(d) record of the hours that No. 2 fuel oil is burned.

[Reference: COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with Section III Condition 4 “Report of Excess Emissions and Deviations” **[Reference: COMAR 26.11.01.07 & COMAR 26.11.03.06C(7)]**

B. Control of Sulfur Oxides

COMAR 26.11.09.07: Control of Sulfur Oxides From Fuel Burning Equipment.

“A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (**2**) In Areas III and IV: (**b**) **Distillate fuel oils, 0.3 percent.**”

Compliance Demonstration

The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil or obtain sulfur in fuel analyses of oil that is representative of the oil burned.

[Reference: COMAR 26.11.03.06C]

The Permittee shall maintain records of fuel supplier’s certification or sulfur in fuel analyses and shall make records available to the Department upon request. The Permittee shall report fuel supplier certification or a copy of the sulfur in fuel analyses to the Department upon request. **[Reference: COMAR 26.11.09.07C].**

C. Control of Nitrogen Oxides:

COMAR 26.11.09.08G - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

"(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
(a) Provide certification of the capacity factor of the equipment to the Department in writing;
(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
(d) – (e) *Not applicable*
(2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_X emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive. "

Compliance Demonstration

The Permittee shall perform a combustion analysis and optimize combustion at least once annually when the turbines operate for more than 500 hours in a calendar year**. [Reference: COMAR 26.11.09.08G(1)(b)]**. If the Permittee operates a turbine in excess of 15 percent capacity factor, the Permittee shall demonstrate compliance with the 65-ppm limit by performing an EPA Reference Method Test within 120 days after exceeding the 15 percent capacity factor. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall calculate the capacity factor of each combustion turbine at the end of each month. **[Reference: COMAR 26.11.03.06C]**.

The Permittee shall:

(1) maintain the results of the combustion analysis performed when hours of operation exceed 500 hours. [**Reference: COMAR 26.11.09.08G(1)(c)].**
(2) retain records of training program attendance for each operator for at least 5 years. **[Reference: COMAR 26.11.09.08G(1)(e)].**
(3) retain records of the calculated capacity factors. **[Reference: COMAR 26.11.03.06C].**

The Permittee shall:

(1) provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [**Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]**
(2) submit a record of the training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e)].**

D. Operational Limit:
The Permittee shall only burn No. 2 fuel oil unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel. **[Reference: COMAR 26.11.02.09A].**

Compliance Demonstration
The Permittee shall maintain a record of the hours of operation for each combustion turbine. The Permittee shall report the monthly hours of operation for the combustion turbines to the Department in the annual emission certification report due on April 1 of each year. [**Reference: COMAR 26.11.03.06C]**

COMPLIANCE SCHEDULE

Philadelphia Road Generating Station is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Philadelphia Road Generating Station is not subject to the Acid Rain Program requirements.

TITLE VI – OZONE DEPLETING SUBSTANCES

Philadelphia Road Generating Station is complying with the standards for recycling and emission reductions pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B.

SECTION 112(r) – ACCIDENTAL RELEASE

Philadelphia Road Generating Station is not subject to the requirements of Section 112(r).

PERMIT SHIELD

The Philadelphia Road Generating Station facility requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 2 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15

consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(2) ✓ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(3) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. 4 Storage of lubricating oils;

(c) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(d) No. 1 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(e) No. 2 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(4) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contain state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

Applicable Regulations:

COMAR 26.11.06.08 - Nuisance
"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be constructed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

COMAR 26.11.06.09 - Odors
"A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard Baltimore MD 21230
(410) 537-3000 1-800-633-6101 http://www.mde.state.md.us

PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION MANAGEMENT ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator: Constellation Power Source Generation, LLC.		
Street Address: 1310 Point Street		
City: Baltimore	State: MD	Zip Code: 21231
Telephone Number: (410) 470-2014	Fax Number N/A	

Facility Information:

Name of Facility: Philadelphia Road Generating Station		
Street Address: 3914 Pulaski Highway		
City: Baltimore	State: MD	Zip Code: 21224
Plant Manager: Joseph M. Dick	Telephone Number: 610-595-8101	Fax Number: Joseph.Dick@constellation.com (in place of fax number)
24-Hour Emergency Telephone Number for Air Pollution Matters: Perryman 6 Control Room 667-218-7906		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.

Constellation

August 15, 2022

Ms. Suna Yi Sariscak
Manager, Air Quality Permits Program
Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Subject: Philadelphia Road Generating Station
Part 70 Permit Renewal Application for Permit 24-510-0265

Dear Ms. Sariscak:

Enclosed are two hard copies of the Constellation Power Source Generation, LLC Part 70 permit renewal application for the Philadelphia Road Generating Station. A pdf file has been emailed to MDE.Submit-AirPermits@maryland.gov. As requested, The Budget Reconciliation and Financing Act of 2003 Form was submitted to MDE. A copy is enclosed.

If you have any questions regarding this application or require further information, please do not hesitate to contact me at Susan.Hoheneder@constellation.com or at 410-262-3925.

Sincerely,

Susan Hoheneder

Susan Hoheneder
Sr Environmental Specialist

Cc: Jen Gutekunst, Constellation Power Source Generation, LLC (via email)
Dave Ciotti, Constellation Power Source Generation, LLC (via email)

MARYLAND DEPARTMENT OF THE ENVIRONMENT

1800 Washington Boulevard • Suite 720 • Baltimore, Maryland 21230-1720
410-537-3000 • 800-633-6101 • http://www.mde.maryland.gov

Air and Radiation Administration • Air Quality Permits Program

Budget Reconciliation and Financing Act of 2003
(Commonly referred as Maryland House Bill 935)

On July 1, 2003, House Bill 935, Chapter 203 amended § 1-203 of the Environment Article, Annotated Code of Maryland, as follows:

Section 1-203(b).
(1) A license or permit is considered renewed for purposes of this subsection if the license or permit is issued by a unit of State government to a person for the period immediately following a period for which the person previously possessed the same or a substantially similar license.
(2) Before any license or permit may be renewed under this article, **the issuing authority shall verify through the office of the Comptroller (emphasis added)** that the applicant has paid all undisputed taxes and the unemployment insurance contributions payable to the Comptroller or the Secretary of Labor, Licensing, and Regulation or that the applicant has provided for payment in a manner satisfactory to the unit responsible for collection.

In order for the Maryland Department of the Environment (MDE) to verify this compliance, we would need you to provide the following information before we can process or issue your renewal license, permit, or certification:

Current MDE License/Permit No.: 24-510-0265

Name of Licensee or Permit Holder: CPSG, LLC - Philadelphia Road Generating Station

Address: 3914 Pulaski Highway, Baltimore, MD 21224

Contact Name: Paul Weeks **Title:** VP Regional Operations

Contact Telephone Number: 610-909-6626

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. § 552a. Disclosure of your Social Security or Federal Tax Identification on this form is mandatory pursuant to the provisions of § 1-203 (2003) of Environment Article, Annotated Code of Maryland, which requires MDE to verify that an applicant for a permit or license has paid all undisputed taxes and unemployment insurance. Social Security and Federal Tax Identification Nos. will not be used for any purposes other than those described in this Notice.

Federal Employer Identification Number (FEIN): 32-0418194

Certification: I certify that the above information is true and correct to the best of my knowledge.

Paul Weeks
Signature

8/15/22
Date

Complete and return this form to Sena Harlley at the above address. If you have any questions, please contact Ms. Harlley at (410) 537-3251.

August 2022

CONSTELLATION POWER SOURCE GENERATION

Philadelphia Road Generating Station

Title V Air Quality Permit Renewal Application

PROJECT NUMBER:
178679.01.01

PROJECT CONTACT:
Jennifer Seinfeld
EMAIL:
Jennifer.Seinfeld@powereng.com
PHONE:
410-312-7915

POWER ENGINEERS

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TABLE OF CONTENTS

APPENDICES:

APPLICATION COMPLETENESS CHECKLIST

The purpose of this part is to list the information required to achieve a Part 70 application shield.

Cover Page

(x) Name and address of owner or operator, including telephone number.

(x) Name and address of facility, including the plant manager's name and telephone number.

(x) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

(x) The certification statement completed and signed by a responsible official.

Section 2 FACILITY DESCRIPTION SUMMARY

(x) A brief description of each of the source's process(es), including all applicable SIC codes and end products.

(N/A) Flow diagrams indicating all emissions units, emission points, and control devices. *(No updates since the original application)*

(N/A) A plot plan of the entire facility. *(No updates since the original application)*

(x) Emission Certification Report.

(x) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS

This section must be completed for each emissions unit.

Part A

(x) Emissions unit number.

(x) Detailed description of unit, including all emission points.

(x) Federally enforceable limit(s) on the operating schedule.

(x) Fuel consumption information for <u>any</u> emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

(x) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.

(x) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(x) The frequency of submittal of the compliance demonstration during the permit term.

Part C

(N/A) Emissions unit number.

(N/A) Permit to construct number.

(N/A) Emissions point number(s).

(N/A) Date(s) the permit to construct was issued.

(N/A) Condition number(s) as indicated on the permit to construct.

(N/A) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

(N/A) Description of all alternate operating scenarios that apply to an emissions unit.

(N/A) Number assigned to each scenario.

(N/A) Emissions unit number.

(N/A) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E

(N/A) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.

(N/A) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.

(N/A) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(N/A) The frequency of submittal of the compliance demonstration during the permit term.

Section 4 CONTROL EQUIPMENT

(N/A) The type of each piece of air pollution control equipment

(N/A) The capture and control efficiencies of the control equipment.

Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

(x) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.

(x) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.

(x) Basis for all emission calculations.

Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

(N/A) An explanation of the proposed exemption.

Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

(N/A) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.

(N/A) Detailed description of methods to be used to achieve compliance.

(N/A) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

(x) Checklist of Insignificant Activities

(N/A) CAM Plan (If Applicable)

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MARYLAND DEPARTMENT OF THE ENVIRONMENT
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PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION MANAGEMENT ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator: Constellation Power Source Generation, LLC.		
Street Address: 100 Constellation Way; Suite 500C		
City: Baltimore	State: MD	Zip Code: 21202
Telephone Number: (410) 470-2014	Fax Number N/A	

Facility Information:

Name of Facility: Philadelphia Road Generating Station		
Street Address: 3914 Pulaski Highway		
City: Baltimore	State: MD	Zip Code: 21224
Plant Manager: Joseph M. Dick	Telephone Number: 610-595-8101	Fax Number: Joseph.Dick@constellation.com (in place of fax number)
24-Hour Emergency Telephone Number for Air Pollution Matters: Perryman 6 Control Room 410-470-2014		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.

Additional Contacts:

Jennifer Gutekunst
Manager Environmental Operations, Mid-Atlantic Region
Jennifer.Gutekunst@constellation.com
215-964-0315

David Ciotti
Senior Environmental Specialist
David.Ciotti@constellation.com
410-507-0662

SECTION 1. CERTIFICATION STATEMENTS

1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

You must complete a Section 7 form for each non-complying emissions unit.

3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under §112(r) of the Clean Air Act:

☐ has been submitted;

☐ will be submitted at a future date; or

☒ does not need to be submitted.

5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:

X Paul Weeks 8/15/22

SIGNATURE DATE

Paul Weeks

PRINTED NAME

VP, Regional Operations

TITLE

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).
The Philadelphia Road Generating Station is located in eastern Baltimore City at 3914 Pulaski Highway at the southwest corner of Monument and Haven Streets. The facility consists of four (4) identical General Electric combustion turbines, rated at 16 MW each, that fire No. 2 fuel oil to generate electricity. The primary SIC for this facility is 4911.

2. Facility-Wide Emissions

A. This facility is required to obtain a Part 70 Operating Permit because it is:
Check appropriate box:

- ☐ Actual Major
- ☒ Potential Major·
- ☐ Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA

B. List the actual facility-wide emissions below:

$PM_{10\ filterable}$ 0.2 NO_x 20.3 VOC 0.02 SO_x 0.4 CO 0.1 HAPs 0.013

3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices.
[NO CHANGES SINCE INITIAL APPLICATION]

Emissions Certification Report (copy of the most recent submitted to the Department)

SECTION 3A-1. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: PR–Unit 1 CT 1a. Date of installation (month/year): 12/1969	2. MDE Registration No.: (if applicable) 510-4-0431

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Philadelphia Road Unit 1 CT is a General Electric combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT1-EP1).

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None

General Reference: _____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. No. 2 Fuel Oil	0.3 (limit)	134,000 gallons (2021 Usage)
2.		
3.		

6. Emissions in Tons: [Actual emissions in tons/yr from CY 2021 Emissions Certification Report]

A. Actual Major: _____ Potential Major: _____X_____ (note: before control device)

B. Actual Emissions: NO_x 5.1 SO_x 0.11 VOC 0.004 $PM_{10\ filterable}$ 0.04 HAPs 0.004

SECTION 3A-2. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: PR–Unit 2 CT 1a. Date of installation (month/year): 12/1969	2. MDE Registration No.: (if applicable) 510-4-0432

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Philadelphia Road Unit 2 CT is a General Electric combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT2-EP1).

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None

General Reference: _____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. No. 2 Fuel Oil	0.3 (limit)	135,000 gallons (2021 Usage)
2.		
3.		

6. Emissions in Tons: [Actual emissions in tons/yr from CY 2021 Emissions Certification Report]

A. Actual Major: _____ Potential Major: ____X____ (note: before control device)

B. Actual Emissions: NO_x 5.1 SO_x 0.11 VOC 0.004 $PM_{10\ filterable}$ 0.04 HAPs 0.004

SECTION 3A-3. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: PR–Unit 3 CT 1a. Date of installation (month/year): 12/1969	2. MDE Registration No.: (if applicable) 510-4-0433

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Philadelphia Road Unit 3 CT is a General Electric combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT3-EP1).

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None

General Reference: _____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. No. 2 Fuel Oil	0.3 (limit)	134,000 gallons (2021 Usage)
2.		
3.		

6. Emissions in Tons: [Actual emissions in tons/yr from CY 2021 Emissions Certification Report]

A. Actual Major: _____ Potential Major: ____X____ (note: before control device)

B. Actual Emissions: NO_x 5.1 SO_x 0.11 VOC 0.004 $PM_{10\ filterable}$ 0.04 HAPs 0.004

SECTION 3A-4. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: PR–Unit 4 CT

1a. Date of installation (month/year): 12/1969

2. MDE Registration No.: (if applicable) 510-4-0434

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):

Philadelphia Road Unit 4 CT is a General Electric combustion turbine fired with No. 2 fuel oil. The unit has a maximum heat input of 258 MMBtu/hr and is used to generate electricity. Emissions from the unit are discharged through a single stack (Emission Point: PR Unit CT4-EP1).

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: None

General Reference: _____

Continuous Processes: _____ hours/day _____ days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1. No. 2 Fuel Oil	0.3 (limit)	134,000 gallons (2021 Usage)
2.		
3.		

6. Emissions in Tons: [Actual emissions in tons/yr from CY 2021 Emissions Certification Report]

A. Actual Major: _____ Potential Major: ____X____ (note: before control device)

B. Actual Emissions: NO_x 5.1 SO_x 0.11 VOC 0.004 $PM_{10\ filterable}$ 0.04 HAPs 0.004

SECTION 3B-1. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: PR–Unit 1 CT through PR–Unit 4 CT **General Reference:** COMAR 26.11.09.05A(2)&(3)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Visible Emissions. A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.

Exceptions. Section A (1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ☒ Annual Compliance Certification: _____
- ☒ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Constellation shall:

(1) Properly operate and maintain the combustion turbines in a manner to prevent visible emissions; and

(2) Verify no visible emissions when burning No. 2 fuel oil. Perform an EPA Reference Method 9 observation of stack emissions for a 6-minute period once every 168 hours a combustion turbine operates.

Constellation shall perform the following, if visible emissions are observed:

Inspect combustion turbine operations;

(1) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and

(2) Document in writing the results of inspections, adjustments and /or repairs to the combustion turbine.

(3) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily for 18 minutes until corrective action has eliminated the visible emissions.

Testing: Reference NA Describe: None

Record Keeping: Reference COMAR 26.11.03.06C Describe: Constellation shall:

(1) Maintain an operation manual and prevention maintenance plan;

(2) Maintain records of maintenance performed on the combustion turbines that relate to preventing visible emissions;

(3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and

(4) Maintain a record of the hours that No. 2 fuel oil is burned.

Note: All records must be maintained for a period of at least 5 years. [COMAR 26.11.03.06C(5)(g)]

Reporting: Reference COMAR 26.11.01.07 & 26.11.03.06C(7) Describe: Constellation shall report incidents of visible emissions in accordance with Part 70 Operating Permit Section III Condition 4, "Report of Excess Emissions and Deviations."

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B-2. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: PR–Unit 1 CT through PR–Unit 4 CT **General Reference:** COMAR 26.11.09.07A(2)

Briefly describe the Emission Standard/Limit or Operational Limitation:

Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(b) Distillate fuel oils, 0.3 percent;

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____
☒ Annual Compliance Certification: _____
☒ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Constellation shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel or obtain a sulfur in fuel analyses of oil that is representative of the oil burned.

Testing: Reference NA Describe: None

Record Keeping: Reference COMAR 26.11.09.07C Describe: Constellation shall maintain records of fuel supplier's certification or sulfur in fuel analyses and shall make records available to the Department upon request.

Note: All records must be maintained for a period of at least 5 years. [COMAR 26.11.03.06C(5)(g)]

Reporting: Reference COMAR 26.11.09.07C Describe: Constellation shall report fuel supplier certification or a copy of the sulfur in fuel analyses to the Department upon request.

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B-3. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: PR–Unit 1 CT through PR–Unit 4 CT **General Reference:** COMAR 26.11.09.08G

Briefly describe the Emission Standard/Limit or Operational Limitation:

Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

(1) "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2 of 15 percent or less shall:

(a) Provide certification of the capacity factor of the equipment to the Department in writing;

(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;

(c) Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request;

(2) "A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_x emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive."

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ☒ Annual Compliance Certification: _____
- ☒ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: Constellation shall calculate the capacity factor of each combustion turbine at the end of each month.

Testing: Reference COMAR 26.11.09.08G(1)(b) and 26.11.03.06C Describe: Constellation shall perform a combustion analysis and optimize combustion at least once annually when the turbines operate for more 500 hours in a calendar year.

If Constellation operates a turbine in excess of a 15 percent capacity factor, Constellation shall demonstrate compliance with the 65-ppm limit by performing an EPA Reference Method Test within 120 days after exceeding the 15 percent capacity factor. Constellation shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date.

Record Keeping: Reference COMAR 26.11.09.08G(1)(c)&(e) and 26.11.03.06C Describe: Constellation shall:

(1) Maintain the results of the combustion analysis performed when the hours of operation exceeds 500 hours.
(2) Retain records of training program attendance for each operator for at least 5 years.
(3) Retain records of the calculated capacity factors.

Note: All records must be maintained for a period of at least 5 years. [COMAR 26.11.03.06C(5)(g)]

Reporting: Reference COMAR 26.11.09.08G(1)(a)&(e) and 26.11.03.06C Describe: Constellation shall:

(1) Provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1st certification report.
(2) Submit a record of the training program attendance for each operator to the Department upon request.

Frequency of submittal of the compliance demonstration: Annual

SECTION 3B-4. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: PR–Unit 1 CT through PR – Unit 4 CT **General Reference**: COMAR 26.11.02.09A

Briefly describe the Emission Standard/Limit or Operational Limitation:

Operational Limitation: The Permittee shall only burn No. 2 fuel oil unless the Permittee applies for and receives an approval or permit from the Department to burn an alternate fuel.

Permit Shield Request: Yes

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ☒ Annual Compliance Certification: _____
- ☒ Semi-Annual Monitoring Report: _____

Methods used to demonstrate compliance:

Monitoring: Reference NA Describe: None

Testing: Reference NA Describe: None

Record Keeping: Reference COMAR 26.11.03.06C Describe: Constellation shall maintain a record of the hours of operation for each combustion turbine.

Reporting: Reference COMAR 26.11.03.06C Describe: Constellation shall report the monthly hours of operation for the combustion turbines to the Department in the annual emission certification report due on April 1st of each year.

Frequency of submittal of the compliance demonstration: Annual

SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: PR–Unit 1 CT through PR – Unit 4 CT **Permit to Construct No.:** 24-510-0265

Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion
All	12/1/2018	VI.2	Condition refers to a requirement for a TAPS analysis. Because the emissions sources covered by this permit are considered "fuel burning equipment", they are exempt from the MDE TAPs program covered by COMAR 26.11.15.

SECTION 3D. ALTERNATE OPERATING SCENARIOS

Emissions Unit No.: None

Briefly describe any alternate operating scenarios. Assign a number to each scenario for identification purposes.

None

SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO

Scenario No.: None

Emissions Unit No.: _____ **General Reference:** _____

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

_____

_____

_____

_____

_____

_____

Compliance Demonstration - NA

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

_____

_____

_____

Testing: Reference _____ Describe: _____

_____

_____

_____

Record Keeping: Reference _____ Describe: _____

_____

_____

_____

Reporting: Reference _____ Describe: _____

_____

_____

_____

Frequency of submittal of the compliance demonstration: _____

SECTION 4. CONTROL EQUIPMENT

1. Associated Emissions Units No.: None	2. Emissions Point No.:
3. Type and Description of Control Equipment:	
Emissions from the four combustion turbines at the Philadelphia Road Generating Station are controlled by proper operation and maintenance of the units. No specific control equipment is used.	

4. Pollutants Controlled:	Control Efficiency:

5. Capture Efficiency:

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

Pollutant	NO_x	VOC	SO_2	$PM_{10\ filterable}$	CO
CAS Number	N/A	N/A	7446-09-5	N/A	630-08-0
Emissions Unit # PR–Unit 1 CT	622	0. 5	339	5	3.7
Emissions Unit # PR–Unit 2 CT	622	0. 5	339	5	3.7
Emissions Unit # PR–Unit 3 CT	622	0. 5	339	5	3.7
Emissions Unit # PR–Unit 4 CT	622	0.5	339	5	3.7
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions					
Total	**2,488**	**2**	**1,356**	**20**	**15**

Summary of Potential to Emit – NO_x

Emission Unit	Description	Max Heat Input MMBtu/hr	Max Annual Operation hrs	NO_x Emission Factor lb/MMBtu	Max Potential Annual Emissions tons	Emission Factor Reference
PR-Unit1CT	Unit1CT	258	8760	0.55	622	Local Test
PR-Unit2CT	Unit2CT	258	8760	0.55	622	Local Test
PR-Unit3CT	Unit3CT	258	8760	0.55	622	Local Test
PR-Unit4CT	Unit4CT	258	8760	0.55	622	Local Test
				Total	2,488 tons	

Example Calculation (Emission Unit PR – Unit 1CT:
(Max Heat Input * Max Operating Hrs * Emission Rate) / 2000 = PTE (tons/year)
(258 mmBtu/hr * 8760 hrs/year * 0.55 lb/mmBtu)/ 2000 lbs/ton = 622 tons/year

Summary of Potential to Emit – VOC

Emission Unit	Description	Max Heat Input MMBtu/hr	Max Annual Operation hrs	VOC Emission Factor lb/MMBtu	Max Potential Annual Emissions tons	Emission Factor Reference
PR-Unit1CT	Unit1CT	258	8760	0.00041	0.5	AP-42 Table 3.1-2a
PR-Unit2CT	Unit2CT	258	8760	0.00041	0.5	AP-42 Table 3.1-2a
PR-Unit3CT	Unit3CT	258	8760	0.00041	0.5	AP-42 Table 3.1-2a
PR-Unit4CT	Unit4CT	258	8760	0.00041	0.5	AP-42 Table 3.1-2a
				Total	2.0 tons	

Example Calculation (Emission Unit PR – Unit 1CT:
(Max Heat Input * Max Operating Hrs * Emission Rate) / 2000 = PTE (tons/year)
(258 MMBtu/hr * 8760 hrs/year * 0.00041 lb/MMBtu)/ 2000 lbs/ton = 0.5 tons/year

Summary of Potential to Emit – SO_2

Emission Unit	Description	Max Heat Input MMBtu/hr	Max Annual Operation hrs	SO_2 Emission Factor lb/MMBtu	Max Potential Annual Emissions tons	Emission Factor Reference
PR-Unit1CT	Unit1CT	258	8760	0.3	339	AP-42 Table 3.1-2a
PR-Unit2CT	Unit2CT	258	8760	0.3	339	AP-42 Table 3.1-2a
PR-Unit3CT	Unit3CT	258	8760	0.3	339	AP-42 Table 3.1-2a
PR-Unit4CT	Unit4CT	258	8760	0.3	339	AP-42 Table 3.1-2a
				Total	1,356 tons	

Example Calculation (Emission Unit PR – Unit 1CT:
(Max Heat Input * Max Operating Hrs * Emission Rate) / 2000 = PTE (tons/year)
(258 MMBtu/hr * 8760 hrs/year * 0.30 lb/MMBtu)/ 2000 lbs/ton = 339 tons/year
[*Assumes fuel sulfur content = 0.3%]

Summary of Potential to Emit – $PM_{10\ filterable}$

Emission Unit	Description	Max Heat Input MMBtu/hr	Max Annual Operation hrs	$PM_{10\ filterable}$ Emission Factor lb/MMBtu	Max Potential Annual Emissions tons	Emission Factor Reference
PR-Unit1CT	Unit 1CT	258	8760	0.004	5	AP-42Table 3.1-2a
PR-Unit2CT	Unit 2CT	258	8760	0.004	5	AP-42Table 3.1-2a
PR-Unit3CT	Unit 3CT	258	8760	0.004	5	AP-42Table 3.1-2a
PR-Unit4CT	Unit 4CT	258	8760	0.004	5	AP-42Table 3.1-2a
				Total	20 tons	

Example Calculation (Emission Unit PR – Unit 1CT:
(Max Heat Input * Max Operating Hrs * Emission Rate) / 2000 = PTE (tons/year)
(258 MMBtu/hr * 8760 hrs/year * 0.004 lb/MMBtu)/ 2000 lbs/ton = 5 tons/year

Summary of Potential to Emit – CO

Emission Unit	Description	Max Heat Input MMBtu/hr	Max Annual Operation hrs	CO Emission Factor lb/MMBtu	Max Potential Annual Emissions tons	Emission Factor Reference
PR-Unit1CT	Unit1CT	258	8760	0.0033	3.7	AP-42 Table 3.1-1
PR-Unit2CT	Unit2CT	258	8760	0.0033	3.7	AP-42 Table 3.1-1
PR-Unit3CT	Unit3CT	258	8760	0.0033	3.7	AP-42 Table 3.1-1
PR-Unit4CT	Unit4CT	258	8760	0.0033	3.7	AP-42 Table 3.1-1
				Total	15 tons	

Example Calculation (Emission Unit PR – Unit 1CT:
(Max Heat Input * Max Operating Hrs * Emission Rate) / 2000 = PTE (tons/year)
(258 MMBtu/hr * 8760 hrs/year * 0.0033 lb/MMBtu)/ 2000 lbs/ton = 3.7 tons/year

SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.

1. Applicable Requirement: None
2. Brief Description:
3. Reasons for Proposed Exemption or Justification of Non-applicability:

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

1. Emissions Unit #	Anticipated Compliance Date
None	
Applicable Federally Enforceable Requirement being Violated: None	

2. Description of Plan to Achieve Compliance:

_____

_____

_____

_____

_____

_____

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

STATE-ONLY ENFORCEABLE REQUIREMENTS

Facility Information:

Name of Facility: Philadelphia Road Generating Station County: Baltimore City
Premises Number: 510-0265
Street Address: 3914 Pulaski Hwy, Baltimore, MD 21205
24-hour Emergency Telephone Number for Air Pollution Matters: Perryman 6 Control Room (410) 470-2014
Type of Equipment (List Significant Units): The Philadelphia Road Generating Station consists of four (4) identical General Electric combustion
turbines that fire No. 2 fuel oil to generate electricity (Emission Unit Nos. PR-Unit 1CT through PR-Unit
4CT).

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: 510-4-0431 thru 510-4-0434

Emissions Unit No.: PR–Unit 1 CT through PR – Unit 4 CT **General Reference:** COMAR 26.11.06.08

Briefly describe the requirement and the emissions limit (if applicable):

Nuisance. An installation or premises may not be operated or maintained in such a manner that nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.

Methods used to demonstrate compliance:

The facility will be operated and maintained to minimize the creation of nuisances or air pollution. Corrective actions will be taken for any nuisances created.

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: 510-4-0431 Thru 510-4-0434

Emissions Unit No.: PR–Unit 1 CT through PR – Unit 4 CT **General Reference:** COMAR 26.11.06.09

Briefly describe the requirement and the emissions limit (if applicable):

Odors. A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that nuisance or air pollution is created.

Methods used to demonstrate compliance:

The facility will be operated and maintained to minimize the potential for discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created. Corrective actions will be taken for any nuisances created.

APPENDIX A CHECK-OFF LIST OF EXEMPT EMISSIONS UNITS AND ACTIVITIES

Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

(1) No. ___ Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

(2) No. ___ Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;

(3) No. 2 Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output;

(4) ___ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(5) ___ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(6) No. ___ Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

(7) ___ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;

(8) ___ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;

(9) ___ Confection cookers where the products are edible and intended for human consumption;

(10) ___ Die casting machines;

(11) ___ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;

(12) ___ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(13) X Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(14) ___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;

(15) ___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;

(16) Containers, reservoirs, or tanks used exclusively for:

(a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

(b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;

(c) _X_ Storage of butane, propane, or liquefied petroleum, or natural gas;

(d) No. _4_ Storage of lubricating oils:

(e) No. ___ Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;

(f) No. _1_ Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(g) No. ___ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(h) No. _2_ The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(17) ___ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride, or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

(a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;

(b) ___ Magnesium or any alloy containing over 50 percent magnesium;

(c) ___ Lead or any alloy containing over 50 percent lead;

(d) ___ Tin or any alloy containing over 50 percent tin;

(e) ___ Zinc or any alloy containing over 50 percent zinc;

(f) ___ Copper;

(g) ___ Precious metals;

(19) ___ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(20) ___ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(21) ___ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(22) ___ Potable water treatment equipment, not including air stripping equipment;

(23) ___ Firing and testing of military weapons and explosives;

(24) ___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(25) _X_ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(26) ___ Grain, metal, or mineral extrusion presses;

(27) ___ Breweries with an annual beer production less than 60,000 barrels;

(28) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(29) ___ Laboratory fume hoods and vents;

(30) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

(31) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

(32) Any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. ___ _____

No. ___ _____

No. ___ _____

APPENDIX B 2021 EMISSIONS CERTIFICATION REPORT

Constellation

March 29, 2022

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Blvd., Suite 715
Baltimore, MD 21230-1720
Attention: Mr. John Artes, Air Quality Compliance Program

Sent via email. No hard copy to follow.

Dear Mr. Artes,

Please accept the attached copy of the Emissions Certification Reports pursuant to COMAR 26.11.01.05-1 and COMAR 26.11.02.19D for criteria air, greenhouse gas, and toxic air pollutants. The data, calculations and estimation methods are included with this submittal for the Perryman and Philadelphia Road Generating Stations. Previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid.

Any small discrepancies between calculation reports and the summary table values are due to rounding.

Please acknowledge receipt of this electronic submittal by replying to the sender.

If you have any further questions, please contact Al Hatton at 610-765-5316 or Susan Hoheneder at 410-470-4470.

Sincerely,

David Ciotti

David Ciotti
Senior Site Environmental Specialist – MD Peaking

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____ Date: 3/23/22

Daniel Lannon - Plant Manager

2021		
Facility & Unit No.	**Operating Hours**	**Capacity Factor (%)**
Perryman 1	73.6	0.5
Perryman 3	57.0	0.3
Perryman 4	48.0	0.3
Perryman 6	1693.0	13.6
Perryman 51	708.0	4.6
Philadelphia Road 1	84.5	1.0
Philadelphia Road 2	85.0	1.0
Philadelphia Road 3	84.2	1.0
Philadelphia Road 4	84.2	1.0

Facility - Fuel Data							
Facility	**Equipment Description**	**MDE Reg. No.**	**Fuel Type**	**Annual Fuel Usage**	**Oz Season Fuel Usage**	**Units**	**Fuel Heat Content mmBTU/Unit**
Perryman	Unit 1 CT	4-0081	No. 2 Oil	370	270	1000 gal	137
Perryman	Unit 2 CT	4-0082	No. 2 Oil	0	0	1000 gal	0
Perryman	Unit 3 CT	4-0083	No. 2 Oil	299	220	1000 gal	137
Perryman	Unit 4 CT	4-0084	No. 2 Oil	247	202	1000 gal	137
Perryman	Unit 51 CT	5-0088	Gas	814	579	10^6 CF	1034
Perryman	Unit 51 CT	5-0088	No. 2 Oil	220	6	1000 gal	137
Perryman	Unit 6A CT	5-0353	Gas	768	352	10^6 CF	1034
Perryman	Unit 6A CT	5-0353	No. 2 Oil	75	28	1000 gal	137
Perryman	Unit 6B CT	5-0354	Gas	892	462	10^6 CF	1034
Perryman	Unit 6B CT	5-0354	No. 2 Oil	77	26	1000 gal	137
Philadelphia Road	Unit 1 CT	4-0431	No. 2 Oil	134	92	1000 gal	137
Philadelphia Road	Unit 2 CT	4-0432	No. 2 Oil	135	95	1000 gal	137
Philadelphia Road	Unit 3 CT	4-0433	No. 2 Oil	134	87	1000 gal	137
Philadelphia Road	Unit 4 CT	4-0434	No. 2 Oil	134	89	1000 gal	137

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard, Suite 715 Baltimore Maryland 21230-1720
410-537-3000 1-800-633-6101 http://www.mde.state.md.us
Air and Radiation Management Administration
Air Quality Compliance Program
410-537-3220

FORM 1:

GENERAL FACILITY INFORMATION
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2021

A. FACILITY IDENTIFICATION Facility Name: Philadelphia Road Generating Station	**Do Not Write in This Space** Date Received Regional
Address: 3914 Pulaski Hwy.	Date Received State
City: Baltimore County: Baltimore City Zip Code: 21224	AIRS Code
B. Briefly describe the major function of the facility	FINDS Code
Fossil Fuel Power Plant	SIC Code
	Facility Number:
	TEMPO ID:
C. SEASONAL PRODUCTION (%, if applicable)	Reviewed by:

Winter *(Dec.-Feb.)*	Spring *(Mar – May)*	Summer *(Jun – Aug)*	Fall *(Sept – Nov)*	Name Date
Percentage	Percentage	Percentage	Percentage	

D. Explain any increases or decreases in emissions from the previous calendar year for each registration at this facility.

N/A

E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)

Control Device	Capture Efficiency	Removal Efficiency
N/A		

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of 24 pages (including attachments), and certify that the information is correct to the best of my knowledge.

Daniel Lannon	Plant Manager	3/23/22
Name (Print/Type)	Title	Date
		610-595-8108
Signature		Telephone

1/09/08

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: NO2 Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	5.1	317.4	Varies	Varies	Varies	Varies	Varies	32	367.5	Varies	Varies	Varies	C1
UNIT 1 CT		F													
4-0432		S	5.1	309.4	Varies	Varies	Varies	Varies	Varies	33	449.3	Varies	Varies	Varies	C1
UNIT 2 CT		F													
4-0433		S	5.1	297.5	Varies	Varies	Varies	Varies	Varies	34	385.5	Varies	Varies	Varies	C1
UNIT 3 CT		F													
4-0434		S	5.1	316.2	Varies	Varies	Varies	Varies	Varies	32	420.2	Varies	Varies	Varies	C1
UNIT 4 CT		F													
Total			20.3	1240.5							1622.6				

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: SO2 Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.11	6.6	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C2
UNIT 1 CT		F													
4-0432		S	0.11	6.5	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C2
UNIT 2 CT		F													
4-0433		S	0.11	6.2	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C2
UNIT 3 CT		F													
4-0434		S	0.11	6.6	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C2
UNIT 4 CT		F													
Total			0.4	26.0											

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: PM - Filterable Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.04	2.4	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.04	2.3	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.16	9.7											

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: PM_{10} Calendar Year: 2021

24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.04	2.4	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.04	2.3	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.2	9.7											

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: $PM_{2.5}$ Calendar Year: 2021

24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.04	2.4	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.04	2.3	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.04	2.5	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.2	9.7											

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: PM - Condensable Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.07	4.1	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.07	4.0	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.07	3.9	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.07	4.1	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.3	16.2											

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: VOC Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.004	0.2	Varies	Varies	Varies	Varies	Varies	32	0.002	Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.004	0.2	Varies	Varies	Varies	Varies	Varies	33	0.002	Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.004	0.2	Varies	Varies	Varies	Varies	Varies	34	0.002	Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.004	0.2	Varies	Varies	Varies	Varies	Varies	32	0.002	Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.02	0.9							0.007				

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: CO Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.03	1.9	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 1 CT		F													
4-0432		S	0.03	1.9	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C3
UNIT 2 CT		F													
4-0433		S	0.03	1.8	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C3
UNIT 3 CT		F													
4-0434		S	0.03	1.9	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C3
UNIT 4 CT		F													
Total			0.1	7.4											

GREENHOUSE GAS POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: CO_2 Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	1,501	93,830	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 1 CT		F													
4-0432		S	1509	91,482	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C1
UNIT 2 CT		F													
4-0433		S	1495	87,955	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C1
UNIT 3 CT		F													
4-0434		S	1496	93,497	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 4 CT		F													
Total			6,002	366,764											

GREENHOUSE GAS POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: CH_4 Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.06	3.8	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 1 CT		F													
4-0432		S	0.06	3.7	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C1
UNIT 2 CT		F													
4-0433		S	0.06	3.6	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C1
UNIT 3 CT		F													
4-0434		S	0.06	3.8	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 4 CT		F													
Total			0.2	14.9											

GREENHOUSE GAS POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Company: CPSG – PHILADELPHIA ROAD POWER PLANT Pollutant: N_2O Calendar Year: 2021
24-510-265

Registration No./ Equipment Description	SCC Number		Actual Emissions		Operating Schedule (Actual)						TOSD	Operating Schedule			Emissions Methods
			Tons/yr	Lbs/day	Hrs/dy	Start	End	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
4-0431		S	0.01	0.8	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 1 CT		F													
4-0432		S	0.01	0.7	Varies	Varies	Varies	Varies	Varies	33		Varies	Varies	Varies	C1
UNIT 2 CT		F													
4-0433		S	0.01	0.7	Varies	Varies	Varies	Varies	Varies	34		Varies	Varies	Varies	C1
UNIT 3 CT		F													
4-0434		S	0.01	0.8	Varies	Varies	Varies	Varies	Varies	32		Varies	Varies	Varies	C1
UNIT 4 CT		F													
Total			0.05	3.0											

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD-Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Arsenic (As) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00004	0.002	0.001	NA	
Unit 2 CT 4-0432	0.00004	0.002	0.001	NA	
Unit 3 CT 4-0433	0.00004	0.002	0.001	NA	
Unit 4 CT 4-0434	0.00004	0.002	0.001	NA	
TOTALS	0.00015				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Berylium (Be) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.0000277	0.002	0.001	NA	
Unit 2 CT 4-0432	0.0000278	0.002	0.001	NA	
Unit 3 CT 4-0433	0.0000276	0.002	0.001	NA	
Unit 4 CT 4-0434	0.0000276	0.002	0.001	NA	
TOTALS	0.00011				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Cadmium (Cd) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00003	0.002	0.001	NA	
Unit 2 CT 4-0432	0.00003	0.002	0.001	NA	
Unit 3 CT 4-0433	0.00003	0.002	0.001	NA	
Unit 4 CT 4-0434	0.00003	0.002	0.001	NA	
TOTALS	0.00011				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Copper (Cu) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00006	0.003	0.001	NA	
Unit 2 CT 4-0432	0.00006	0.003	0.001	NA	
Unit 3 CT 4-0433	0.00006	0.003	0.001	NA	
Unit 4 CT 4-0434	0.00006	0.003	0.001	NA	
TOTALS	0.00022				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Lead (Pb) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00008	0.005	0.002	NA	
Unit 2 CT 4-0432	0.00008	0.005	0.002	NA	
Unit 3 CT 4-0433	0.00008	0.005	0.002	NA	
Unit 4 CT 4-0434	0.00008	0.005	0.002	NA	
TOTALS	0.00033				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Manganese (Mn) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00006	0.003	0.001	NA	
Unit 2 CT 4-0432	0.00006	0.003	0.001	NA	
Unit 3 CT 4-0433	0.00006	0.003	0.001	NA	
Unit 4 CT 4-0434	0.00006	0.003	0.001	NA	
TOTALS	0.00022				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Mercury (Hg) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00003	0.002	0.001	NA	
Unit 2 CT 4-0432	0.00003	0.002	0.001	NA	
Unit 3 CT 4-0433	0.00003	0.002	0.001	NA	
Unit 4 CT 4-0434	0.00003	0.002	0.001	NA	
TOTALS	0.00011				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Selenium (Se) *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00014	0.009	0.003	NA	
Unit 2 CT 4-0432	0.00014	0.008	0.003	NA	
Unit 3 CT 4-0433	0.00014	0.008	0.003	NA	
Unit 4 CT 4-0434	0.00014	0.009	0.003	NA	
TOTALS	0.00055				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: **2021**

Facility Name: **Philadelphia Road Generating Station** **Facility ID:** **24-510-265** **Pollutant:** Formaldehyde *

Equipment Description/ Registration Number [1]	Actual Emissions			Control Device **	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
Unit 1 CT 4-0431	0.00322	0.201	0.076	NA	
Unit 2 CT 4-0432	0.00324	0.196	0.076	NA	
Unit 3 CT 4-0433	0.00321	0.189	0.076	NA	
Unit 4 CT 4-0434	0.00321	0.201	0.076	NA	
TOTALS	0.01288				

* Please attach all calculations.
* See Attachment 1 for the minimum reporting values.
**Control Device
S = Scrubber
B = Baghouse
ESP = Electrosttic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced
NRH - No Reportable HAPS

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/9/08

#2 Fuel (Diesel) Boiler HAPS Calculator

Facility: **Philadelphia Road Generating Station**

Equipment Description:	**Unit 1 CT**	**Unit 2 CT**	**Unit 3 CT**	**Unit 4 CT**
Registration #	**4-0431**	**4-0432**	**4-0433**	**4-0434**
	134,278	**135,009**	**133,738**	**133,802**
	137400	**137400**	**137400**	**137400**
	1.84E+10	**1.86E+10**	**1.84E+10**	**1.84E+10**

AP-42 HAPs Diesel-Fired Boilers	**lb/10^{12} btu**	**Unit 1 CT**		**Unit 2 CT**		**Unit 3 CT**		**Unit 4 CT**		**Facility Total (tons)**	**Reporting Threshold (tons/year)**	**Reportable (tons)**
		lbs	**tons**	**lbs**	**tons**	**lbs**	**tons**	**lbs**	**tons**			
Arsenic (As)	4.00E+00	0.07	3.69E-05	0.07	3.71E-05	0.07	3.68E-05	0.07	3.68E-05	1.48E-04	0.0001	0.0001
Berylium (Be)	3.00E+00	0.06	2.77E-05	0.06	2.78E-05	0.06	2.76E-05	0.06	2.76E-05	1.11E-04	0.0001	0.0001
Cadmium (Cd)	3.00E+00	0.06	2.77E-05	0.06	2.78E-05	0.06	2.76E-05	0.06	2.76E-05	1.11E-04	0.0001	0.0001
Chromium (Cr)	3.00E+00	0.06	2.77E-05	0.06	2.78E-05	0.06	2.76E-05	0.06	2.76E-05	1.11E-04	0.01	0.0000
Copper (Cu)	6.00E+00	0.11	5.53E-05	0.11	5.57E-05	0.11	5.51E-05	0.11	5.52E-05	2.21E-04	0.01	0.0000
Lead (Pb)	9.00E+00	0.17	8.30E-05	0.17	8.35E-05	0.17	8.27E-05	0.17	8.27E-05	3.32E-04	0.001	0.0000
Manganese (Mn)	6.00E+00	0.11	5.53E-05	0.11	5.57E-05	0.11	5.51E-05	0.11	5.52E-05	2.21E-04	0.01	0.0000
Mercury (Hg)	3.00E+00	0.06	2.77E-05	0.06	2.78E-05	0.06	2.76E-05	0.06	2.76E-05	1.11E-04	0.001	0.0000
Nickel (Ni)	3.00E+00	0.06	2.77E-05	0.06	2.78E-05	0.06	2.76E-05	0.06	2.76E-05	1.11E-04	0.001	0.0000
Selenium (Se)	1.50E+01	0.28	1.38E-04	0.28	1.39E-04	0.28	1.38E-04	0.28	1.38E-04	5.53E-04	0.01	0.0000
Formaldehyde	4.80E-02	6.45	3.22E-03	6.48	3.24E-03	6.42	3.21E-03	6.42	3.21E-03	1.29E-02	0.01	0.0129

Total Tons	**0.01491**	**Total Reportable Tons**	**0.0133**

* Emission factor from AP-42 Table 1.3-10

** Formaldehyde emission factor from AP-42 Table 1.3-8 is given in lbs/1000 gallons

FORM 5:

BILLABLE AIR TOXIC POLLUTANTS **Calendar Year: 2021**

Emissions Certification Report

Facility Name: **Philadelphia Road Generating Station** **Facility ID: 24-510-265**

Chemical Name	CAS Number		Actual Emissions				Estimation Methods
			Tons/yr	Lbs/day	Lbs/hr		
carbon disulfide	75-15-0	S	PNP				
		F					
carbonyl sulfide	463-58-1	S	PNP				
		F					
chlorine	7782-50-5	S	PNP				
		F					
cyanide compound	57-12-5	S	PNP				
		F					
hydrochloric acid	7647-01-0	S	PNP				
		F					
hydrogen fluoride	7664-39-3	S	PNP				
		F					
methyl chloroform	71-55-6	S	PNP				
		F					
methylene chloride	75-09-2	S	PNP				
		F					
perchloroethylene	127-18-4	S	PNP				
		F					
phosphine	7803-51-2	S	PNP				
		F					
titanium tetrachloride	7550-45-0	S	PNP				
		F					
TOTALS			0				

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by engineering judgment
C5-User calculated based on a State or local agency factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standards

PNR - Pollutant Not Reportable
PNP - Pollutant Not Produced

This form is to include only the chemicals identified.

PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emissions figures shown above.

03/09/09

APPENDIX C 2021 ANNUAL COMPLIANCE CERTIFICATION REPORT

March 22, 2022

Mr. John Artes, Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, MD 21230-1720

Associate Director
Office of Enforcement and Permit Review (3AP10)
US EPA Region Ill
1650 Arch Street
Philadelphia, PA 19103-2029

Reference: Part 70 Compliance Certification Reports – 2021
Facility No. 24-0025-0024 and 24-510-00265

Enclosed please find the Part 70 Compliance Certification Reports for 2021 for Constellation Power Source Generation's Perryman and Philadelphia Road Generating Stations.

If you have any questions or need additional information, please contact Dave Ciotti at (410) 507 – 0662 or Jennifer Gutekunst at (215) 964-0315. Thank you.

Al Hatton
Manager, Environmental Programs

cc: Environmental File # 1.1.6 Annual Compliance Certification

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Lannon (First) Daniel (MI) P

Title Plant Manager

Street or P.O. Box P.O. Box 41

City Perryman State MD ZIP 21130 -

Telephone (610) 595 - 8108 Ext. Facsimile ( ) -

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

I certify under penalty of law, based on information and belief formed after reasonable inquiry, the statements and information contained in these documents are true, accurate and complete.

Name (signed)

Name (typed) Daniel P. Lannon Date: 03 / 22 / 2022

United States Environmental Protection Agency

OMB No. 2060-0336,
Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
ANNUAL COMPLIANCE CERTIFICATION (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-025-00024

Reporting Period: Beg. 01 / 01 / 2021 End. 12 / 31 / 2021

Source / Company Name Perryman Generating Station

Mailing Address: Street or P.O. Box P.O. Box 41

City Perryman State MD ZIP 21130 - _____

Contact person Daniel P. Lannon Title Plant Manager

Telephone (410) 470 - 0707 Ext. _____

Continued on next page

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): PY-Unit1, PY-Unit2, PY-Unit3, PY-Unit4, & PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.1.1A, 1.3A, 1.4A, 1.5A, 2.1A, 2.3A, 2.4A, 2.5A – Visible Emissions]

Applicable Standards:
COMAR 26.11.09.05A(2) - which prohibits visible emissions from any fuel burning equipment other than water in an uncombined form, except as allowed under COMAR 26.11.09.05A(3).

COMAR 26.11.09.05A(3) - which allows visible emissions, during periods of building new fires, cleaning fires, soot blowing, start-up, or cleaning control equipment, not to exceed 40% opacity for more than 6 consecutive minutes in any 60-minule period.

Monitoring Requirements:
COMAR 36.22.03.06C - The permittee shall:
(a) properly operate and maintain the combustion turbines in a manner to prevent visible emissions;
(b) verify no visible emissions when burning #2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of stack emissions for an 18-minute period once for each 168 hours a combustion turbine operates on No. 2 oil.

Perform the following if visible emissions are observed:
(a) inspect combustion turbine operations;
(b) perform all necessary adjustments and/or repairs to the combustion turbine within 48 operating hours so that visible emissions are eliminated;
(c) document in writing the results of the inspections, adjustments and/or repairs to the combustion turbine; and
(d) if the required adjustments and/or repairs had not eliminated the visible emissions within the stipulated 48 operating hours, perform a Method 9 observation once daily for 18-minutes until corrective action has eliminated the visible emissions.

Recordkeeping Requirements:
COMAR 26.11.03.06C - Maintain for at least five years records of maintenance performed on the combustion turbines that relate to preventing visible emissions and a log of visible emission observations performed.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.03.06C(7) - Report incidents of excess emissions in accordance with Section III Condition 4 "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station properly operated and maintained the combustion turbines in accordance with permit conditions IV.1.3A and IV.2.3A. A visible emissions observations was performed on 10/28 for Unit 51; no visible emissions were observed. No visible emissions observations were performed on Units 1-4 due to insufficient operating hours.

Perryman Generating Station maintains on site, for at least five years, documents of maintenance performed on the combustion turbines that relate to preventing visible emissions, and a log of visible emission observations performed in accordance with permit conditions IV.1.4A

and IV.2.4A.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): PY-Unit1, PY-Unit2, PY-Unit3, & PY-Unit4

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.1.1B, 1.3B, 1.4B, 1.5B – Sulfur Oxides]

Applicable Standards:
COMAR 26.11.09.07 A(2)(b) – Do not burn No.2 distillate fuel oil with sulfur content in excess of 0.3 percent by weight.

Monitoring Requirements:
COMAR 26.11.03.06C – Obtain certification from fuel supplier indicating sulfur content of the fuel oil or obtain sulfur in fuel analyses of the oil.

Recordkeeping Requirements:
COMAR 26.11.03.06C - Maintain for at least five years, documents certifying the sulfur content of fuel oil received or copies of fuel analyses.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.03.06C(7) - Report incidents of visible emissions in accordance with Section Ill Condition 4 "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):
Per permit conditions IV.1.1B, IV.1.3B and IV.1.4B, Perryman Generating Station retains on site, for at least five years, documents certifying the sulfur content for each batch of fuel oil delivered and had such records available to the Department upon request. Only No.2 distillate oil with sulfur content less than 0.3% was burned in the units in accordance with permit condition IV.1.1B.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): PY-Unit1, PY-Unit2, PY-Unit3, & PY-Unit4

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.1.1C, 1.2C, 1.3C, 1.4C, 1.5C – Nitrogen Oxides]

Applicable Standards:
COMAR 26.11.09.08G – If operating fuel-burning equipment with a capacity factor of 15 percent or less:

a. Provide certification of capacity factor to the Department in writing;
b. If equipment operates more than 500 hours during the calendar year, perform a combustion analysis and optimize combustion at least once annually; and
c. Maintain the results of the combustion analysis on site for at least 2 years.

If operating a combustion turbine with a capacity factor greater than 15 percent, meet an hourly average NOx emission rate of 65 ppm (when burning fuel oil).

Testing Requirements:
COMAR 26.11.03.06C – If operating a combustion turbine with a capacity factor greater than 15 percent, perform EPA reference test within 120 days after exceeding the 15% capacity factor to demonstrate compliance with the 65 ppm limit. Submit a test protocol at least 30 days prior to the

proposed test date.

Monitoring Requirements:
COMAR 26.11.09.08G(1)(b) - Perform combustion analysis and optimize combustion at least once annually when turbine operates for more than 500 hours in a calendar year.

COMAR 26.11.03.06C – Calculate capacity factor for each unit for each calendar year within 30 days after the end of the year.

Recordkeeping Requirements:
COMAR 26.11.09.08G(1)(c) and 26.11.03.06C – Maintain results of combustion analysis and any stack tests for at least 5 years and maintain record of the calculated capacity factors.

Reporting Requirements:
COMAR 26.11.09.08G(1)(a) and 26.11.03.06C – Provide certification of the capacity factors to the Department as part of the Annual Emissions Certification. Submit results of any stack tests within 45 days of completion of the testing.

Compliance Methods for the Above (Description and Citation):
In 2021, operating hours were under 500 and capacity factors were below 15% for all units. None of the Units ran for more than 500 hours in the previous calendar year; therefore, no combustion analyses were required.

Operating hours and capacity factors are maintained onsite per permit conditions IV.1.3C and IV.1.4C. Capacity factors were included in the Emission Certification Report per permit condition IV.1.5C.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.2.1B, 2.3B, 2.4B, 2.5B – Sulfur Oxides]

Applicable Standards:
COMAR 26.11.09.07 A(2)(b) – Do not burn No.2 distillate fuel oil with sulfur content in excess of 0.3 percent by weight.

Monitoring Requirements:
COMAR 26.11.03.06C – Obtain certification from fuel supplier indicating sulfur content of the fuel oil or obtain sulfur in fuel analyses of the oil.

Recordkeeping Requirements:
COMAR 26.11.03.06C - Maintain for at least five years, documents certifying the sulfur content of fuel oil received or copies of fuel analyses, and records of the number of hours, in any consecutive 12-month period, that fuel oil is used.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.09.07C – Report fuel supplier certifications or fuel analyses to Department upon request.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station retains on site, for at least five years, documents certifying the sulfur content for fuel oil received and had such records available to the Department upon

request per permit conditions IV.2.1B, IV.2.3B, IV.2.4B, and IV.2.5B.

Monthly and 12-month rolling period hours of operation for Unit 51 were recorded and maintained onsite per permit condition IV.2.4B.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

---

Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit Condition IV.2.1B – Subpart GG Standards of Performance for Stationary Gas Turbines; CPCN #8241 – Sulfur Oxides]

Applicable Standards:
40 CFR §60.333 - The fuel oil burned shall he limited to a sulfur content of no more than 0.8 percent by weight in No. 2 fuel distillate fuel oil.

CPCN #8241 – The fuel oil burned shall he limited to a sulfur content of no more than 0.05 percent by weight in No. 2 fuel distillate fuel oil. [this is the most stringent of the content requirements]. If this type of fuel is not available, fuel oil with a maximum sulfur content of 0.2 percent may be used.

CPCN # 8241 - Except during periods of start-up, shutdown, and malfunction, the following limitations apply:
(a) sulfur oxide (S02) emissions are limited to 28 lb/hr when burning natural gas and 87 lb/hr when using No. 2 oil.
(b) Sulfuric Acid Mist to 7.8 lb/hr when burning No.2 oil.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station retains on site for at least five years documents certifying the sulfur content for each batch of fuel oil delivered or copies of representative sulfur in fuel analysis per permit condition IV.2.1B. These records were available to the Department upon request.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

---

Emission Unit ID(s): PY-Unit51, CT6A, CT6B

Permit Term (Describe requirements and cross-reference)
[Permit Condition IV.2.1B, 2.3B, 2.4B, 2.5B, 3.1B, 3.3B, 3.4B, 3.5B – Acid Rain Permit]

Applicable Standards:
The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station.

Monitoring Requirements:
Comply with the monitoring requirements of 40 CFR Part 75 including the QC/QA procedures in Part 75 Appendix B.

Recordkeeping Requirements:
40 CFR Part 75, Subpart F - Comply with the recordkeeping requirements in the Acid Rain Permit.

Reporting Requirements:

40 CFR Part 75, Subpart G - Comply with the reporting requirements of the Acid Rain Permit

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station maintained appropriate allowances in its account in accordance with permit conditions IV.2.1B and 3.1B.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

---

Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.2.1C, 2.3C, 2.4C, 2.5C – Particulate Matter]

Applicable Standards:
CPCN #8241 - limits particulate emissions (TSP and PM_{10} emissions each) to 10 lb/hr when burning natural gas and 11 lb/hr when burning No.2 oil, except during periods of start-up, shutdown, malfunction.

Monitoring Requirements:
COMAR 26.11.03.06C – Perform preventative maintenance to maintain turbine as designed.

Recordkeeping Requirements:
COMAR 26.11.03.06C – Maintain records of preventative maintenance that related to combustion performance for 5 years.

Reporting Requirements:
COMAR 26.11.02.06C – Submit records of preventative maintenance to Department upon request.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station performed preventative maintenance to maintain the turbine as designed per permit condition IV.2.3C.

Perryman Generating Station maintains records for 5 years for any maintenance that relate to combustion performance per permit condition IV.2.4C. These records are available to be submitted to the department upon request per permit condition IV.2.5C.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

---

Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.2.1D, 2.3D, 2.4D, 2.5D – Nitrogen Oxides]

Applicable Standards:
COMAR 26.11.09.08G – If operating fuel-burning equipment with a capacity factor of 15% or less:
a. Provide certification of capacity factor to the Department in writing,
b. If equipment operates more than 500 hours during the calendar year, perform a combustion analysis and optimize combustion at least once annually; and
c. Maintain the results of the combustion analysis on site for at least 2 years.

If operating a combustion turbine with a capacity factor greater than 15 percent, meet an hourly average NOx emission rate of 65 ppm (when burning fuel oil).

40 CFR 60.332, Subpart GG – Standards of Performance for Stationary Gas Turbines - NO_x emissions limits in accordance with the equation in 40 CFR 60.332(a)(1).

CPCN #8241 - the following limitations apply when burning natural gas:
(a) NOx emissions are limited to 170 lb/hr.
(b) NOx emissions are limited to 25 parts per million by volume on a dry basis (ppmvd) at 15% excess oxygen on an hourly basis.

CPCN #8241 - the following limitations apply when burning No.2 oil:
(a) NOx emissions are limited to 490 lb/hr.
(b) NOx emissions are limited to 65 ppmvd at 15% oxygen.

CPCN # 8421 - limits NOx emissions of 1,363 tons in any consecutive 12-month period.

CPCN #8241, Condition 26 – Emissions limitations in the CPCN conditions do not apply during periods of start-up, shutdown, and malfunction.

Monitoring Requirements:
CPCN #8241 and COMAR 26.11.29.08A - Operate, calibrate, and maintain a certified NOx CEM system.

40 CFR 75.70 and COMAR 26.11.09.08B - Certify the NOx CEM system in accordance with Part 75, Appendix A.

Recordkeeping Requirements:
COMAR 26.11.03.06C - Maintain records necessary for the quarterly emission reports that contain the requirements of COMAR 26.11.01.11E(2).

Reporting Requirements:
Submit quarterly summary report to Department no later than 30 days following each calendar quarter, including 1) the cause, time periods, and magnitude of all emissions which exceed the applicable standards; 2) source downtime, including time and date of beginning an end of each downtime and whether event was planned or unplanned; 3) time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data; 4) quarterly totals of excess emissions, installation downtime, and CEM downtime during the quarter; 5) quarterly quality assurance activities; 6) daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and 7) other information required by the Department determined to be necessary to evaluate data, ensure compliance, or determine applicability.

Compliance Methods for the Above (Description and Citation):
In accordance with permit condition IV.2.1D, in 2021, operating hours were above 500 hours for Unit 51 and the capacity factor was below 15%. Unit 51 met the CPCN #8421 requirements (25ppm gas, 65ppm oil). Records relating to combustion performance maintenance are maintained for at least five years and were available to be submitted to the Department upon request.

Perryman Generating Station calibrated, operated, and maintained a NOx CEM system which is certified in accordance with Part 75, Appendix A, per permit condition IV.2.3D. Intermittent compliance with hourly NOx limits due to startup, shutdown and malfunction were reported in 2021 quarterly emissions reports in accordance with permit condition IV.2.5D.

Perryman Generating Station maintained records necessary to prepare a quarterly emission report in accordance with the requirements of 26.11.01.11E(2) per permit condition IV.2.4D.

Quarterly reports were be submitted to the Department no later than 30 days following each calendar quarter in accordance with permit condition IV.2.5D.

Status (Check one): _X_ Intermittent Compliance ___ Continuous Compliance

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Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.2.1E, 2.3E, 2.4E, 2.5E – VOC]

Applicable Standards:
CPCN #8241 - limits VOC emissions to 2.9 lb/hr when burning natural gas and 7 lb/hr when burning No.2 oil, except during periods of startup, shutdown, malfunction.

Monitoring Requirements:
COMAR 26.11.03.06C – Perform preventative maintenance to maintain the turbine as designed.

Recordkeeping Requirements:
COMAR 26.11.03.06C – Maintain records of preventative maintenance relating to combustion performance for 5 years.

Reporting Requirements:
Submit records of maintenance to Department upon request.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station performed preventative maintenance to maintain the turbine as designed in accordance with permit condition IV.2.3D.

Perryman Generating Station maintains records for 5 years for any maintenance related to combustion performance in accordance with permit condition IV.2.4D. These records were available to be submitted to the department upon request in accordance with permit condition IV.2.5D.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

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Emission Unit ID(s): PY-Unit51

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.2.1F, 2.3F, 2.4F, 2.5F – Carbon Monoxide]

Applicable Standards:
CPCN #8241 - limits CO emissions to 52 lb/hr when burning natural gas and 70 lb/hr when burning No.2 oil, except during periods of startup, shutdown, malfunction.

Monitoring Requirements:
COMAR 26.11.03.06C – Perform preventative maintenance to maintain the turbine as designed.

Recordkeeping Requirements:
COMAR 26.11.03.06C – Maintain records of preventative maintenance relating to combustion performance for 5 years.

Reporting Requirements:

Submit records of maintenance to Department upon request.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station performed preventative maintenance to maintain the turbine as designed in accordance with permit condition IV.2.3F.

Perryman Generating Station maintains records for 5 years for any maintenance related to combustion performance in accordance with permit condition IV.2.4F; these records were available to be submitted to the department upon request in accordance with permit condition IV.2.5F.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

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Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.3.1A, 3.3A, 3.4A, 3.5A – Visible Emissions]

Applicable Standards:
COMAR 26.11.09.05A(2) - which prohibits visible emissions from any fuel burning equipment other than water in an uncombined form, except as allowed under COMAR 26.11.09.05A(3).
COMAR 26.11.09.05A(3) - which allows visible emissions, during periods of load changing, soot blowing, start-up, or adjustments or cleaning control equipment, not to exceed 40% opacity for more than 6 consecutive minutes in any 60-minule period.

Monitoring Requirements:
CPCN #9136, Condition B-IV-14 - Operate and maintain the combustion turbines in a manner to minimize visible emissions at all times, including startup, shutdown and malfunction.

CPCN #9136, Condition B-IV-8 – Conduct quarterly visual observations according to EPA Reference Method 22 to verify no visible emissions during operation. If visible emissions are observed:
(a) Inspect combustion turbine operations;
(b) Perform all necessary adjustments and/or repairs to the combustion turbine within 48 operating hours so that visible emissions are eliminated;
(c) Document in writing the results of the inspections, adjustments and/or repairs to the combustion turbine; and
(d) If the required adjustments and/or repairs had not eliminated the visible emissions within the stipulated 48 operating hours, perform a Method 9 observation once daily for 18-minutes until corrective action reduced the visible emissions to less than 10% opacity.

Recordkeeping Requirements:
CPCN #9136, Condition B-IV-8 and COMAR 26.11.03.06C - Maintain for at least five years, records of inspection, adjustments, and/or repairs and maintenance performed to address visible emissions observed during the quarterly Method 22 and/or Method 9 observations.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.03.06C(7) - Report incidents of excess emissions in accordance with Section Ill Condition 4 "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station properly operated and maintained the combustion turbines to minimize visible emissions; and EPA Reference Method 22 observations of stack emissions were performed quarterly, in accordance with permit condition IV.3.3A. No visible emissions were observed during the reporting period; therefore Method 9 observations were not required.

Perryman Generating Station maintains on site, for at least five years, documents of maintenance performed that relate to preventing visible emissions, and a log of visible emission observations performed in accordance with permit condition IV.3.4A.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1B, 3.2B, 3.3B, 3.4B, 3.5B – Sulfur Oxides]

Applicable Standards:
COMAR 26.11.09.07 A(2)(b) – Do not burn No.2 distillate fuel oil with sulfur content in excess of 0.3 percent by weight.

Subpart KKKK – Standard of Performance for Stationary Combustion Turbines – Do not discharge into the atmosphere any gases which contain SO_2 in excess of 110 ng/J (0.9 lb/MWh) gross output. Do not burn any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.06 lb SO_2/MMBtu).

CPCN #9136 – The only permissible fuels for the combustion turbines are pipeline quality natural gas and ultra-low sulfur diesel (ULSD). USLD may only be used during interruption of natural gas supply.

Testing Requirements:
CPCN #9146, Conditions B-IV-11 – Conduct annual SO_2 stack test per 40 CFR 60.8 (40.CFR 60.4415 and 60.4360) or monitor the sulfur content of each fuel combusted as prescribed in 40 CFR 60.4370.

Monitoring Requirements:
40 CFR 60.4370 – Monitor sulfur content of each delivery per 40 CFR 75 Appendix D for fuel oil and each operating day per 40 CFR 60.4365 for gaseous fuel. A representative sample shall be collected following ASTM D5287 for natural gas or ASTM D4177 or D4057 for ULSD. Analyze samples for total sulfur content using ASTM D129 (or alternatively D1266m D1552, D2622, D4292, or D5453) for ULSD and ASTM D1072 (or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2377) for natural gas.

Recordkeeping Requirements:
CPCN #9136 Conditions B-IV-8, -15, and -21 - Maintain for at least five years, all annual fuel records and fuel certifications indicating the ULSD complies with the sulfur content limit.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.09.07C – Report fuel supplier certifications or fuel analyses to Department upon request.

CPCN #9136 Conditions B-IV-24, -25, and -27 – Submit written notification to Department and EPA of compliance testing and stack test protocol at least 30 days prior to such date. Final results of testing must be submitted to the Department within 60 days after completion of testing. Submit reports of NSPS Subpart KKKK excess emissions and monitor downtime in accordance with 40 CFR 60.79(c). Excess emissions per 40 CFR 60.4385 (SO_2) must be reported for all periods of unit operation, including startup, shutdown, and malfunction.

40 CFR 60.4395 – All reports must be postmarked by the 30th day following the end of each 6-

month period.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station monitored the sulfur content of fuel in accordance with permit condition IV.3.2B.

Perryman Generating Station retains on site, for at least five years, documents certifying the sulfur content for each batch of fuel oil delivered and such records were available to the Department upon request per permit conditions IV.3.4B and IV.3.5B.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1C, 3.2C, 3.3C, 3.4C, 3.5C – Particulate Matter]

Applicable Standards:
COMAR 26.11.06.03B(2)(a) – Do not discharge to the atmosphere particulate matter in excess of 0.03 gr/dscf.

CPCN #9136, Condition B-IV-4 BACT/LAER - limits PM_{10} and $PM_{2.5}$ emissions (filterable and condensable) at all times to 5 lb/hr when burning natural gas and 15 lb/hr when burning USLD.

Testing Requirements:
CPCN #9136, Conditions B-IV-9 and -11 - Conduct annual stack test for PM_{10} and $PM_{2.5}$ in accordance with EPA approved test methods 201A (Determination of PM_{10} and $PM_{2.5}$ Emissions from Stationary Sources) and 202 (Dry Impinger Method for Determining Condensable Particulate Emissions from Stationary Sources), unless otherwise approved by the Department. Request to Department a request to reduce frequency of testing.

Monitoring Requirements:
CPCN #9136, Condition B-IV-14 – Operate and maintain the combustion turbines and associated control equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times, including startup, shutdown and malfunction.

Recordkeeping Requirements:
Maintain all annual fuel records.

Reporting Requirements:
CPCN #9136, Conditions B-IV-25 and -25 - Submit written notification to the Department and EPA of compliance testing and stack test protocol at least 30 days prior to testing. Final results must be submitted to the Department within 60 days after completion of the test.

Compliance Methods for the Above (Description and Citation):
Stack tests were conducted in February and July 2021 in accordance with permit condition IV.3.2C.

The combustion turbines and associated control equipment were operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at all times in accordance with permit condition IV.3.3C.

Perryman Generating Station maintained all fuel records in accordance with permit condition IV.3.4C.

Stack test protocol and reports were submitted as required in accordance with permit condition IV.3.5C.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1D, 3.3D, 3.4D, 3.5D – Nitrogen Oxides]

Applicable Standards:

COMAR 26.11.09.08G – If operating fuel-burning equipment with a capacity factor of 15% or less:

a. provide certification of capacity factor to the Department in writing,
b. if equipment operates more than 500 hours during the calendar year, perform a combustion analysis and optimize combustion at least once annually; and
c. Maintain the results of the combustion analysis on site for at least 2 years.

If operating a combustion turbine with a capacity factor greater than 15 percent, meet an hourly average NOx emission rate of 42 ppm when burning gas or 65 ppm when burning fuel oil.

40 CFR 60.4320 (Subpart KKKK – Standards of Performance for Stationary Combustion Turbines) – When burning NG, NO_x emissions shall not exceed 25 ppm at 15% O_2 (150 ng/J; 1.2 lb/MWh) of useful output at all times greater than or equal to 75% of peak load, 4-hour rolling. When burning USLD, NO_x emissions shall not exceed 74 ppm at 15% O_2 (460 ng/J; 3.6 lb/MWh) of useful output, 4-hour rolling.

CPCN #9136 (LAER) – When burning NG, NO_x shall not exceed 2.5 ppm at 15% O_2 (5.8 lb/hr) at all times, excluding startup and shutdown, averaged over 3-hr block.

When burning USLD, NO_x shall not exceed 5 ppm at 15% O_2 (11.7 lb/hr) at all times, excluding startup and shutdown, averaged over 3-hr block.

During startup, NO_x shall not exceed 36.4 lb/event. During shutdown, NO_x shall not exceed 9.27 lb/event.

When burning NG or USLD, NO_x emissions shall not exceed 96 ppm at 15% O_2 (700 ng/J; 5.5 lb/MWh) of useful output at all times greater than or equal to 75% of peak load, 4-hour rolling

CPCN #9136, Condition B-II-4 and -5 - "Startup Event" - For 1 CT is the period of time during which 1 CTs output is increased with the intent to startup, beginning with initiation of fuel combustion in 1 CT and ending when the SCR system catalyst reaches 600° F. For 2 CTs, startup begins at the point at which 1 CT initiates combustion and ends when the SCR system catalyst reaches 600° F.

"Shutdown event" – For 1 CT, shutdown is the period of time during which 1 CT output is lowered with the intent to shutdown, beginning at the point at which the load drops below 50% and ending when fuel combustion ceases. For 2 CTs, shutdown begins at the point in which the first CT drops below 50% and ends when fuel combustion for both CTs ceases. If 2 CTs are in operation and 1 CT's load is lowered below 50% with the intent to shutdown while the other CT continues normal operation during and beyond the point fuel combustion ceases from the first CT, that shall not constitute a shutdown event.

Monitoring Requirements:

CPCN # 9136, Condition B-IV-7 – Install USLD and pipeline quality natural gas flow meters and continuously monitor each fuel flow into the two combustion turbines; record monthly.

CPCN #9136, Condition B-IV-10 – Demonstrate compliance for NO_x emissions by installing a certified NO_x CEMS in accordance with the performance specifications of 40 CFR Part 60, Appendix B or 40 CFR Part 75, Appendix A. The CEMS shall be operated and maintained to meet he QA requirements of 40 CFR 60, Appendix F or 40 CFR 75.

CPCN #9136, Condition B-IV-13 – Install and maintain a temperature gauge to accurately indicate the temperature in degrees F of the SCR catalyst system. During startup events, the temperature of the SCR system catalyst shall be continuously monitored.

Recordkeeping Requirements:
CPCN #9136, Conditions B-IV-20 and -22 - Maintain all CEMS reports submitted to the Department and records of the SCR system catalyst temperature during startup events.

Reporting Requirements:
CPCN # 9136, Condition B-IV-19(a) and (b) – Submit (a) a quarterly CEMS summary report including the information required in COMAR 26.11.01.11E(2)(c)(i)-(vii) and (b) CEMS system downtime reports for any CEMS system downtime that lasts or is expected to last more than 24 hours by telephone be 10 am of the first regular business day following the breakdown.

CPCN #9136, Condition B-IV-27 – Reports of NSPS KKKK excess emissions and monitor downtime associated with the combustion turbines, in accordance to 30 CFR 60.79(c). Excess emissions as defined in 40 CFR 60.4380 (NO_x) must be reported for all periods of unit operation, including startup, shutdown and malfunction. All reports must be postmarked by the 30th day following the end of each 6-month period.

Compliance Methods for the Above (Description and Citation):

In accordance with permit condition IV.3.1D, in 2021, operating hours were over 500 hours; and the capacity factors were under 15% for Units CT6A and CT6B, respectively. The Perryman 6 units met the standards specified in permit condition IV.3.1D as required by LAER, which are more stringent than the 42ppmvd/65ppmvd standards.

Perryman Generating Station installed, calibrated, operated, and maintained a NOx CEM system which is certified in accordance with Part 75, Appendix A, per permit condition IV.3.3D. Flow meters are installed and monitored continuously for each fuel in accordance with permit condition IV.3.3D. A temperature gauge on the SCR system catalyst is maintained and continuously monitored during startup events in accordance with permit condition IV.3.3D.

CEMS reports and records of SCR catalyst temperature during startup events were maintained in accordance with permit condition IV.3.4D.

Perryman Generating Station submitted quarterly CEMS reports in accordance with permit condition IV.3.5D. There were no excess emissions during this reporting period.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1E, 3.2E, 3.3E, 3.4E, 3.5E – GHG Emissions]

Applicable Standards:
CPCN #9136, Condition B-IV-4 – emissions from the two combustion turbines shall not exceed 1,394 lb CO_{2e}/MWh gross (when burning natural gas) 1,741 lb CO_{2e}/MWh gross (when burning USLD) and at all times excluding startup and shutdown over a 12-month rolling average period.

NSPS Subpart TTTT – Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units 60.5520(a) – Do not discharge any gases that contain CO_2 in excess of 50 kg/GJ CO_2 (120 lb CO_2/MMBtu).

Testing Requirements:
CPCN #9136, Condition B-IV-9 and -11 - Conduct annual stack test. Unless otherwise approved by the Department, for each fuel burned, the performance test shall be conducted in accordance with EPA Reference Method 3A, or as an alternative, install a certified CEMS in accordance with performance specification of 40 CFR Part 75, Appendix A. May request the Department reduce the frequency of stack testing.

Monitoring Requirements:
CPCN #9136, Condition B-IV-12 – GHG emissions shall be calculated as follows: Total GHG emissions shall be presented on a CO_2e basis using the following global warming potential values:

Chemical Formula	Global warming potential
CO_2	1
CH_4	25
N_2O	298
SF_6	23.900

CO_2 emissions shall be based on fuel flow and measured carbon content of the fuel using procedures specified in 40 CFR Part 75, Appendix G or other emission factors approved by the Department. CH_4 and N_2O emissions shall be calculated using procedures in 40 CFR Part 96 Subpart C.

Total generation of the combustion turbines shall be monitored to calculate the emission rate of lb CO_2e/MWh, determined each month by summing the CO_2e emission for all hours in which power is being generated by the turbines during the previous 12 months and dividing by the sum of electrical energy output over the same period.

NSPS Subpart TTTT (60.5535) – Maintain fuel purchase records for permitted fuels.

Recordkeeping Requirements:
CPCN #9136 Condition B-IV-21 - Maintain all annual fuel records.

CPCN #9136 Condition B-IV-23 – Monthly and 12-month consecutive rolling GHG emissions rate (lb/CO_2e/MWh) for each combustion turbine for each fuel burned.

NSPS Subpart TTTT – Maintain fuel purchase records as required by 40 CFR 60.5520(d)(1).

Reporting Requirements:
CPCN #9136 Conditions B-IV-24 and -25 – Submit written notification to the Department and EPA the anticipated date of compliance testing and stack test protocol at least 30 days prior to such testing. Final results of all compliance stack test must be submitted within 60 days after completion of testing.

CPCN #9136 Conditions B-IV-23 – Submit quarterly reports, postmarked by the 30th day of the month following the end of each calendar quarter, that includes monthly and 12-month rolling emissions and supporting calculations for each turbine; monthly and 12-month rolling GHG emission rate (lb/CO_2e/MWh gross) for each turbine and each fuel burned; and monthly and 12-month rolling gross generation (MWh) for each turbine for each fuel burned.

Compliance Methods for the Above (Description and Citation):

Stack tests were conducted in February and July 2021 in accordance with permit condition IV.3.2E.

Perryman Generating Station calculated GHG emissions using the specified global warming potential values, fuel flow, and carbon content as required in permit condition IV.3.3E.

Perryman Generating Station maintained all fuel records, monthly and rolling 12-month GHG emissions, and total generation of the combustion turbines in accordance with permit condition IV.3.4E.

Stack test protocol and results were submitted as required in accordance with permit condition IV.3.5E. Quarterly reports were submitted in accordance with permit condition IV.3.5E.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1F, 3.2F, 3.3F, 3.4F, 3.5F – Ammonia Emissions]

Applicable Standards:
CPCN #9136 Condition B-IV-4 – Ammonia emissions from the two turbines burning NG or USLD shall not exceed 5 ppmvd at 15% O2 at all times, over an averaged period of 3 stack test runs.

Testing Requirements:
CPCN #9136 Conditions B-IV-9 and -11 - Conduct stack test every five (5) years. Unless otherwise approved by the Department, stack test shall be conducted per EPA Test Method 027. Submit to the Department request to reduce the frequency of testing.

Monitoring Requirements:
CPCN #9136 Condition B-IV-14 – Operate and maintain combustion turbines and associated control equipment in a manner consistent with good air pollution control practices for minimizing emissions at all time including startup, shutdown, and malfunction.

Recordkeeping Requirements:
CPCN #9136 Conditions B-IV-21 and -23 – Maintain all annual fuel records. Monthly and 12-month rolling emissions and supporting calculations for each combustion turbines.

Reporting Requirements:
CPCN #9136 Condition B-IV-24 and -25 – Submit written notification to the Department and EPA the anticipated date of compliance testing and stack test protocol at least 30 days prior to testing. Final results of all compliance stack tests must be submitted within 60 days after completion of testing.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station performed the required stack test in February 2021 accordance with permit condition IV.3.2F.

The combustion turbines and associated control equipment were operated and maintained in a manner to minimize emissions at all times in accordance with permit condition IV.3.3F.

All fuel records, monthly and 12-month rolling emissions were maintained for each turbine in accordance with permit condition IV.3.4F

Stack test protocol and results were submitted as required in accordance with permit condition IV.3.5F.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): CT6A and CT6B

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.3.1G, 3.3G, 3.4G, 3.5G – Operational Limit]

Applicable Standards:
CPCN #9136 Condition B-IV-2 – Combustion turbines shall not exceed the following:

a) Total number of hours of operation, including startup and shutdown, shall not exceed 10,512 in any consecutive rolling 12-month period.
b) Total number of hours burning fuel oil on the two turbines, exclusive of startup and shutdown, shall not exceed 2,628 hours in any consecutive rolling 12-month period.
c) Total number of startup events (1 or 2 turbines) shall not exceed 1,040 in any consecutive rolling 12-month period.
d) Total number of shutdown events (1 or 2 turbines) shall not exceed 1,040 in any consecutive rolling 12-month period.

Monitoring Requirements:
CPCN #9136 Condition B-IV-7 - Install ULSD and pipeline quality natural gas flow meters and continuously monitor each fuel flow into the turbines. Record fuel flow for each fuel monthly.

Recordkeeping Requirements:
CPCN #9136 Condition B-IV-21 – Maintain all annual fuel records.

Reporting Requirements:
CPCN #9136 Condition B-III-5 - – Submit quarterly reports, postmarked by the 30th day of the month following the end of each calendar quarter, that includes additional emissions source specific supporting documentation.

CPCN #9136 Conditions B-IV-23 – Monthly and 12-month rolling quantity of natural gas and USLD for each combustion turbine, inclusive of startup and shutdown events. Monthly and 12-month rolling hours of operation for each combustion turbine, inclusive of startup and shutdown events. Monthly and 12-month rolling quantity of natural gas and USLD for each combustion turbine, exclusive of startup and shutdown events. Monthly and 12-month rolling total number of startup events and shutdown events.

Compliance Methods for the Above (Description and Citation):
Flow meters were installed and continuously monitored for each fuel in accordance with permit condition IV.3.3G. Annual fuel records are maintained in accordance with permit condition IV.3.4G.

Perryman Generating Station submitted quarterly reports, including monthly and 12-month rolling hours of operation, quantity of fuel(s), number of startup and shutdown events and for each turbine in accordance with permit condition IV.3.5G.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): EG6 and FWP6

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.4.1A, 4.3A, 4.5A – Visible Emissions]

Applicable Standards:
COMAR 26.11.09.05E – (2) During idle mode, do not cause or permit the discharge of emissions greater than 10% opacity. (3) During operation mode, do not cause or permit the discharge of

emissions greater than 40% opacity.

Exceptions: COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purposes of clearing the exhaust system. COMAR 26.11.09.05E(3) does not apply to emissions resulting from cold engine start-up and warm-up for: i) engines that are idled continuously when not in service: 30 minutes; and ii) all other engines: 15 minutes. Sections E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Monitoring Requirements:
CPCN #9136, Condition B-IV-10 - Operate and maintain the emergency generator and fire water pump in accordance with the manufacturer's emission-related written instructions, changing only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR Parts 89.94 and/or 1068, as applicable.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.03.06C(7) - Report incidents of excess emissions in accordance with Section Ill Condition 4 "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):
The engines were operated and maintained per manufacturer's instructions in accordance with permit condition 4.3A.

No visible emissions were observed during the reporting period.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): EG6 & FWP6

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.4.1B, 4.3B, 4.4B, 4.5B – Sulfur Oxides]

Applicable Standards:
COMAR 26.11.09.07 A(2)(b) – Do not burn No.2 distillate fuel oil with sulfur content in excess of 0.3 percent by weight.

CPCN #9136 Condition B-V-1 – Burn only ULSD with sulfur content not to exceed 15 ppmw.

CPCN #9136 Condition B-V-9 – The emergency generator and fire water pump engines must be fitted with a non-resettable hour meter prior to startup of each engine.

Monitoring Requirements:
COMAR 26.11.03.06C – Obtain certification from fuel supplier indicating sulfur content of the fuel oil or obtain sulfur in fuel analyses of the oil.

Recordkeeping Requirements:
CPCN #9136 Condition B-IV-21 – Maintain all fuel records.

CPCN #9136 Conditions B-V-8 and -15 – Maintain certification from fuel supplier indicating the USLD complies with the limitation of sulfur content in the fuel oil. The certification should include name of supplier, the date of delivery, the amount of fuel delivered, the method used to determine the sulfur content, and a statement from the supplier that the ULSD complies with 40 CFR 80.510.

Reporting Requirements:
CPCN #9136 Conditions B-III-5 and B-V-17 – Submit quarterly reports to the Department,

postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling emissions, hours of operation, quantity of ULSD burned, and reason engine was operated.

Compliance Methods for the Above (Description and Citation):

Perryman Generating Station retained documents certifying the sulfur content for each batch of fuel oil delivered and made such records available to the Department upon request per permit conditions IV.4.3B and IV.4.4B. Only USLD was burned in these units.

Quarterly reports including monthly and 12-month rolling emissions, hours of operating, and quantity of fuel usage were submitted in accordance with permit condition 4.5B.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): EG6 and FWP6

Permit Term (Describe requirements and cross-reference)

[Permit conditions IV.4.1C, 4.3C, 4.4C, 4.5C – Nitrogen Oxides]

Applicable Standards:

COMAR 26.11.09.08G – If operating fuel-burning equipment with a capacity factor of 15% or less:

a. provide certification of capacity factor to the Department in writing,
b. if equipment operates more than 500 hours during the calendar year, perform a combustion analysis and optimize combustion at least once annually;
c. Maintain the results of the combustion analysis on site for at least 2 years;
d. Require each operator to attend operator training programs at least once every 3 years on combustion optimization that are sponsored by the Department, EPA, or equipment vendors; and
e. Maintain a record of training program attendance for each operator at the site and make records available to the Department upon request.

Monitoring Requirements:

CPCN #9136 Condition B-V-9 – Engines must be fitted with non-resettable hour meter prior to startup of each engine.

Recordkeeping Requirements:

CPCN #9136 Conditions V-V-12(a) and (b) – Maintain results of any combustion analyses on the engines. Maintain records of training program attendance for each operator of the emergency generator and firewater pump.

Reporting Requirements:

CPCN #9136 Conditions B-III-5 and B-V-17 – Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling hours of operation and reason engine was operated.

Compliance Methods for the Above (Description and Citation):

In accordance with permit condition IV.4.1C, operating hours in 2021 were under 500 hours and the capacity factors were under 15% for Units EG6 and FWP6, respectively. The units did not run for more than 500 hours; therefore, no combustion analyses were required per permit condition IV.4.1C.

Perryman Generating Station maintained records of operator training in accordance with permit condition IV.4.4C.

Quarterly reports including monthly and 12-month rolling hours of operation were submitted in accordance with permit condition IV.4.5C.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): EG6 & FWP6

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.4a.1, 4a.3, 4a.4, 4a.5 – 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines]

Applicable Standards:
CPCN #9136 Condition B-V-4 – The emergency generator and firewater pump engine must meet the following for the life of the engine:

Pollutant	Emission Limit g/KW-h (g/hp-hr)	
	Emergency Generator	Firewater Pump
NOx + NMHC	4.0 (3.0)	4.0 (3.0)
CO	3.5 (2.5)	n/a
PM (filterable only)	0.20 (0.15)	0.20 (0.15)

CPCN #9136 Condition B-V-5(b) – Engines must be certified to meet the emission standards of 40 CFR 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. Install and configure according to the manufacturer's emission-related specification, except as permitted in 40 CFR 60.4211(g).

CPCN #9136 Condition B-V-5(c) – Emergency generator may only be operated for emergencies, maintenance, and testing purposes; any other operation is prohibited. Operation for maintenance and testing is limited to a maximum of 100 hours per year; there is no limit on emergency usage.

CPCN #9136 Condition B-V-5(d) – Firewater pump engine may only be operated for emergencies, maintenance, and testing purposes, and emergency demand response as defined in 40 CFR 60.4211(f)(1) and (2). Operation for maintenance, testing, and emergency demand response is limited to a maximum of 100 hours per year; there is no limit on emergency usage.

CPCN #9136 Condition B-V-7 – PM_{10} and $PM_{2.5}$ total emissions (filterable and condensable) shall not exceed 0.17 g/hp-hr with PM condensable emissions alone not to exceed 0.02 g/hp-hr.

CPCN #9136 Condition B-V-6 - NESHAP - To satisfy 40 CFR 63, Subpart ZZZZ, engines shall comply with all applicable requirements of NSPS Subpart IIII.

Monitoring Requirements:
CPCN #9136 Condition B-V-10 – NSPS – Operate and maintain in accordance with manufacturer's emission-related written instructions, changing only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR Parts 89, 94, and/or 1068, as applicable.

CPCN #9136 Condition B-V-9 – Engines must be fitted with a non-resettable hour meter prior to startup of each engine.

Recordkeeping Requirements:
CPCN #9136 Condition B-IV-21 – NSPS – Maintain all annual fuel records.

CPCN #9136 Condition B-V-12(a) – Maintain results of any combustion analyses on the emergency

generator or firewater pump engine.

Reporting Requirements:
CPCN #9136 Conditions B-III-5 and B-V-17 – Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling emissions, hours of operation, and reason engine was operated.

Compliance Methods for the Above (Description and Citation):
EG6 and FWP6 were operated and maintained in accordance with manufacturer's emission-related written instructions per permit condition IV.4a.3.

Fuel records were maintained in accordance with permit condition IV.4a.4.

Quarterly reports including monthly and 12-month consecutive rolling emissions, hours of operation, and reason engine was operated were submitted to the Department in accordance with permit condition IV.4a.5.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): FUG6

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.5.1, 5.3, 5.4, 5.5]

Applicable Standards:
CPCN #9136 Condition B-III-3 – GHG BACT – GHG emissions shall be included as part of the project-wide GHG emissions (430,210 CO_2e tpy).

CPCN #9136 Condition B-IV-3 – Implement an audio, visual, olfactory (AVO) program to monitor fugitive GHG emissions.

Monitoring Requirements:
CPCN #9136 Condition B-IV-2(a) – Monthly and 12-month consecutive rolling fugitive GHG emissions shall be based on AP-42 emissions factors, methodology in 40 CFR Part 98 Subpart W, or other emission factors approved by the Department.

CPCN #9136 Condition B-IV-2(b) and 40 CFR 98 – Total GHG emissions shall be presented on a CO2e basis using the following global warming potential values:

Chemical Formula	Global warming potential
CO_2	1
CH_4	25

CPCN #9136 Condition B-IV-3 - Implement an audio, visual, olfactory (AVO) program to monitor fugitive GHG emissions. Evaluate on a weekly basis from the natural gas pipeline and associated components. Document AVO inspections. Leaks shall be repaired within 5 days of discovery, repairs documented, and repair records maintained.

Recordkeeping Requirements:
CPCN #9136 Condition B-IV-4 – Maintain records of monitoring and repair associated with fugitive emissions for at least five (5) years and make available to the Department upon request.

CPCN #9136 Condition B-IV-5 – Maintain monthly and 12-month rolling GHG emissions, The emissions and supporting calculations shall be included in the quarterly report.

Reporting Requirements:
CPCN #9136 Conditions B-III- 5 and B-IV-5 - Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling GHG emissions from fugitive sources.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Stations implemented an AVO program and monitored weekly for leaks in accordance with permit conditions IV.5.1 and IV.5.3.

Monthly and 12-month rolling emissions were calculated in accordance with permit condition IV.5.3.

Records of emissions and monitoring and repairs were maintained and made available to the Department upon request in accordance with permit condition IV.5.4.

Quarterly reports including fugitive emissions were submitted to the Department in accordance with permit condition IV.5.5.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): CB6

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.5.1, 5.3, 5.4, 5.5]

Applicable Standards:
CPCN #9136 Condition B-III-3 – GHG BACT – GHG emissions shall be included as part of the project-wide GHG emissions (430,210 CO_2e tpy).

CPCN #9136 Condition B-VII-3 – Install state of the art circuit breaker that is designed to meet ANSI C37.013 or equivalent to detect and minimize SF_6 leaks.

Monitoring Requirements:
CPCN #9136 Condition B-VII-2(a) – Monthly and 12-month consecutive rolling GHG emissions shall be calculated using manufacturer provided leak rate, methodology in 40 CFR Part 98 Subpart DD, and assuming 8,760 hours per year operation.

CPCN #9136 Condition B-VII-2(a) and 40 CFR 98 – Total GHG emissions shall be presented on a CO2e basis using a global warming potential value of 23,900 for SF6

CPCN #9136 Condition B-VII-3 - Leaks shall be repaired within 5 days of discovery, repairs documented, and repair records maintained.

Recordkeeping Requirements:
CPCN #9136 Condition B-VII-4 – Maintain records of monitoring and repair associated with the circuit breaker for at least five (5) years and make available to the Department upon request.

CPCN #9136 Condition B-VII-5 – Maintain monthly and 12-month rolling GHG emissions, The emissions and supporting calculations shall be included in the quarterly report.

Reporting Requirements:
CPCN #9136 Conditions B-III- 5 and B-I\VII-5 - Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling GHG emissions from the circuit breaker.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Stations implemented an AVO program and monitored weekly for leaks in accordance with permit conditions IV.5.1 and IV.5.3.

Monthly and 12-month rolling emissions were calculated in accordance with permit condition IV.5.3.

Records of emissions and monitoring and repairs were maintained and made available to the Department upon request in accordance with permit condition IV.5.4.

Quarterly reports including emissions from the circuit breaker were submitted to the Department in accordance with permit condition IV.5.5.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

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Emission Unit ID(s): PR6

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.5.1, 5.4, 5.5]

Applicable Standards:
CPCN #9136 Condition B-III-3 –BACT/LAER – PM_{10} and $PM_{2.5}$ emissions shall be included as part of the project-wide emissions (43.0 tpy each (filterable and condensable)).

Recordkeeping Requirements:
CPCN #9136 Condition B-VII-3 – Reasonable precautions shall be taken to prevent particulate matter from becoming airborne via paved roads.

Reporting Requirements:
CPCN #9136 Conditions B-III- 5 and B-VII-4 - Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter that include additional emissions information and supporting documentation. Monthly and 12-month consecutive rolling PM_{10} and $PM_{2.5}$ emissions from paved roads.

Compliance Methods for the Above (Description and Citation):
Reasonable precautions were taken to prevent airborne particulate from paved roads in accordance with permit condition IV.5.3.

Particulate emissions were calculated in accordance with permit condition IV.5.1 and quarterly reports including the monthly and 12-month rolling particulate emissions from paved roads were submitted in accordance with permit condition IV.5.5.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

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Emission Unit ID(s): Perryman 6 (CT6A, CT6B, EG6, FWP6, FUG6, CB6, and PR6)

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.6.1, 6.3, 6.4, 6.5]

Applicable Standards:
CPCN #9136 Condition B-III-3 - Emissions (tons/12-month rolling period) for all Perryman 6 sources, including during periods of startup and shutdown, are limited to: 430,210 GHG (CO_2e); 43 PM_{10} (filterable and condensable); 43 $PM_{2.5}$ (filterable and condensable); and 58.5 NO_x.

Monitoring Requirements:
CPCN #9136 Condition B-III-4 – Calculate monthly and 12-month consecutive rolling emissions (tons/month and TPY) of CHC (as CO_2e), PM_{10}, $PM_{2.5}$ and NO_x for entire Perryman 6 project.

CPCN #9136 Condition B-IV-7 - GHG emissions shall be calculated as follows:

(a) Total GHG emissions shall be presented on a CO_2e basis using the following global warming potential values:

Chemical Formula	Global warming potential
CO_2	1
CH_4	25
N_2O	298
SF_6	23.900

(b) For combustion turbines, CO_2 emissions shall be based on fuel flow and measured carbon content of the fuel using procedures specified in 40 CFR Part 75, Appendix G or other emission factors approved by the Department. CH_4 and N_2O emissions shall be calculated using procedures in 40 CFR Part 96 Subpart C.
(c) Total generation of the combustion turbines shall be monitored to calculate the emission rate of lb CO_2e/MWh, determined each month by summing the CO_2e emission for all hours in which power is being generated by the turbines during the previous 12 months and dividing by the sum of electrical energy output over the same period.
(d) For emergency generator and firewater pump, the GHG emissions shall be based on the methodology in 40 CFR 98 Subpart C, or other emission factors approved by the Department.
(e) The fugitive GHG emissions shall be based on EPA AP-42 emission factors, methodology in 40 CFR 98 Subpart W, or other emission factors approved by the Department.
(f) GHG emissions from the circuit breaker shall be calculated using manufacturer provided leak rate, methodology in 40 CFR 98, Subpart DD, and assuming 8,760 hours per year of operation.

Install ULSD and pipeline quality natural gas flow meters and continuously monitor each fuel flow into the two combustion turbines. Fuel flow for each fuel shall be recorded monthly.

Recordkeeping Requirements:
COMAR 26.11.03.06C(5)(g), CPCN #9136 Conditions B-IV-7 and -20 – Maintain the following records for a period of at least 5 years: monthly fuel flow and all CEMS reports submitted to the Department.

Reporting Requirements:
CPCN #9136 Conditions B-III-5(a)-(b), B-IV-23(a)-(h), B-IV-19(b), B-IV-23, B-V-17, B-VI-5, B-VII-5, and B-VIII-4 - Submit quarterly reports to the Department, postmarked by the 30th day of the month following the end of each calendar quarter. Include the following information:

(a) Monthly and 12-month rolling emissions of GHG (as CO_2e), PM_{10}, $PM_{2.5}$, and NO_x in tons/month and tons/year;
(b) Additional emissions source specific documentation
(c) Monthly and 12-month rolling emission and supporting calculations for each combustion turbine;

(d) Monthly and 12-month rolling quantity of pipeline natural gas and ULSD for each combustion turbine, inclusive of startup and shutdown events;
(e) Monthly and 12-month rolling hours of operation for each combustion turbine, inclusive of startup and shutdown events;
(f) Monthly and 12-month rolling hours of operation for each combustion turbine, exclusive of startup and shutdown events;
(g) Monthly and 12-month rolling total number of startup events and shutdown events;
(h) Total NO_x emissions for each startup and shutdown event (lb/event);
(i) Monthly and 12-month rolling GHG emissions (lb/CO_2/MWH gross) for each combustion turbine, for each fuel burned.
(j) Monthly and 12-month rolling gross generation (MWh) for each combustion turbine for each fuel burned;
(k) Quarterly CEMS summary report in a format approved by the Department and include information required by COMAR 26.11.01.11E(2)(c)(i)-(vii);
(l) Monthly and 12-month rolling emissions for the emergency generator and firewater pump;
(m) Monthly and 12-month rolling GHG emissions from fugitive sources;
(n) Monthly and 12-month rolling GHG from circuit breaker;
(o) Monthly and 12-month rolling PM_{10} and $PM_{2.5}$ emissions from paved roads; and
(p) Explanation why ULSD was burned in combustion turbines.

Compliance Methods for the Above (Description and Citation):

Perryman Generating Station calculated monthly and 12-month rolling emissions in accordance with permit condition IV.6.1 and IV.6.2.

Fuel flow meters continuously monitored the fuel into the two combustion turbines and were recorded monthly in accordance with permit condition IV.6.2.

Fuel flow and emissions records and CEMS reports were maintained in accordance with permit condition IV.6.4.

Quarterly reports including monthly and 12-month rolling emissions for each of the Perryman 6 units, as well as monthly and 12-month rolling hours of operation, total number of startup and shutdown events, NOx emissions during startup and shutdown, and gross generation for each turbine were submitted to the Department in accordance with permit IV.6.5.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): Facility-wide

Permit Term (Describe requirements and cross-reference)

[Permit conditions IV.7.1A, 7.3, 7.4, 7.5 – CSAPR – 40 CFR 97 Subpart AAAAA – TR NOx Annual Trading Program]

Applicable Standards:

CSAPR - 40 CF Part 97 Subpart AAAAA – TR NOx Annual Trading Program – Comply with provisions of 40 CFR 97.401 – 97.435 to hold allowances in the compliance account not less than the tons of total NOx emissions for the annual period.

CSAPR - 40 CF Part 97 Subpart BBBBB – TR NOx Ozone Season Trading Program – Comply with provisions of 40 CFR 97.501 – 97.535 to hold allowances in the compliance account not less than the tons of total NOx emissions for the ozone season.

Monitoring Requirements:

CSAPR - 40 CF Part 97 Subpart AAAAA – TR NOx Annual Trading Program – Comply with the

monitoring requirements of 40 CFR 97.406, 97.430, and 97.434.

CSAPR - 40 CF Part 97 Subpart BBBBB – TR NOx Ozone Season Trading Program – Comply with the monitoring requirements of 40 CFR 97.506, 97.530, and 97.534.

Operate NOx CEMS pursuant to 40 CFR Part 75, Subpart H.

Recordkeeping Requirements:
CSAPR - 40 CF Part 97 Subpart AAAAA – TR NOx Annual Trading Program – Comply with the recordkeeping requirements of 40 CFR 97.406, 97.430, and 97.434.

CSAPR - 40 CF Part 97 Subpart BBBBB – TR NOx Ozone Season Trading Program – Comply with the recordkeeping requirements of 40 CFR 97.506, 97.530, and 97.534.

Reporting Requirements:
CSAPR - 40 CF Part 97 Subpart AAAAA – TR NOx Annual Trading Program – Comply with the reporting requirements of 40 CFR 97.406, 97.430, 97.433, and 97.434.

CSAPR - 40 CF Part 97 Subpart BBBBB – TR NOx Ozone Season Trading Program – Comply with the reporting requirements of 40 CFR 97.506, 97.530, 97.533, and 97.534.

Compliance Methods for the Above (Description and Citation):
Perryman Generating Station maintained an appropriate number of NOx allowances in its account in accordance with permit condition IV.7.1A.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): Facility-wide

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.7.1A, 7.3, 7.4, 7.5 – CSAPR – 40 CFR 97 Subpart CCCCC – TR SO_2 Group 1 Trading Program]

Applicable Standards:
CSAPR - TR SO_2 Group 1 Trading Program 40 CFR 97 Subpart CCCCC – Comply with the requirements of 40 CFR 97.601 – 96.635. Hold allowances in amount not less than the tons of total SO_2 emission from all TR SO2 Group 1 units.

Monitoring Requirements:
CSAPR - TR SO_2 Group 1 Trading Program 40 CFR 97 Subpart CCCCC – Comply with the monitoring requirements of 40 CFR 97.606, 97.631, 97.632, and 97.633.

Operate SO_2 CEMS pursuant to 40 CFR Part 75, Subpart B.

Recordkeeping Requirements:
CSAPR - TR SO_2 Group 1 Trading Program 40 CFR 97 Subpart CCCCC – Comply with the recordkeeping requirements of 40 CFR 97.606, 97.630, and 97.634.

Reporting Requirements:
CSAPR - TR SO_2 Group 1 Trading Program 40 CFR 97 Subpart CCCCC – Comply with the reporting requirements of 40 CFR 97.606, 97.630, 97.633, and 97.634.

Compliance Methods for the Above (Description and Citation):
SO_2 CEMS operated, records maintained and reports submitted as required.

Perryman Generating Station maintained an appropriate number of SO_2 allowances in its account in accordance with permit condition IV.7.1A.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

Emission Unit ID(s): Facility Wide

Permit Term (Describe requirements and cross-reference)
[Permit Section VI – State-Only Conditions]

Applicable Standards:
COMAR 26.11.06.08 - which prohibits the operation or maintenance of an installation or premises in such a manner that a nuisance or air pollution is created.

COMAR 26.11.06.09 - which prohibits the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.

Annotated Code of Maryland, Environment, Title 2, Subtitle 5 - Temporary Fuel Variances. The Permittee may file a petition to the Department to request a temporary fuel variance in accordance with the procedures specified under this subtitle.

CO2 Budget Permit – Comply with the requirements of the CO2 Budget Permit (included as Appendix C to the Part 70 Permit).

Recordkeeping and Reporting Requirements:
Submit to the Department by April 1 of each year, a written certification of the results of an analysis of emissions of toxic air pollutants. The analysis shall include: a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or b) a revised compliance demonstration, developed in accordance with COMAR 26.11.15 and .16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Compliance Methods for the Above (Description and Citation):
No nuisance has been generated by the facility during the reporting period.

There was no variance in fuels used at Perryman Generating Station during the reporting period. Emission report submitted by April 1 to the Department.

Status (Check one): ___ Intermittent Compliance _X_ Continuous Compliance

CERTIFICATION OF PLANT-WIDE CONDITIONS
EXELON - PERRYMAN GENERATING STATION
PART 70 OPERATING PERMIT NO. 24-025-00024

(Section III of Part 70 Operating Permit)

Indicate compliance with the following requirements of Section III of your Part 70 Operating Permit in the Space provided below:

1. Particulate Matter from Construction and Demolition

Where necessary, reasonable precautions were taken to prevent particulate matter from becoming airborne.

2. Open Burning

No open burning occurred in 2021.

3. Air Pollution Episode

There were no requests for standby emissions reduction plans for air pollution episodes during this reporting period.

4. Report of Excess Emissions and Deviations

There were no reportable excess emissions or deviations.

5. Accidental Release Provisions

This requirement is not applicable to the facility.

6. General Testing Requirements

The facility was in compliance with general testing requirements.

7. Emissions Test Methods

All testing was performed using reference test methods.

8. Emissions Certification Report

The emissions certification report was submitted as required by April 1.

9. Compliance Certification Report

This compliance certification report is being submitted as required by April 1.

10. Certification by Responsible Official

All application forms, reports and compliance certifications were certified by a responsible official as required.

11. Sampling and Emissions Testing Record Keeping

Records specified in permit condition III.11 have been retained as required.

12. General Record Keeping

Records specified in permit condition III.12 have been retained as required.

13. General Conformity

This requirement is not applicable to the facility.

14. Asbestos Provisions

No renovation or demolition activities were conducted during this period.

15. Ozone Depleting Regulations

The facility was in compliance with applicable ozone depletion regulations during this reporting period.

16. Acid Rain Permit (if applicable)

PY-Unit51, CT6A, and CT6B have been in compliance with applicable provisions of the Acid Rain Permit. PY-Unit1, PY-Unit2, PY-Unit3, PY-Unit4, PY-Unit51, CT6A, and CT6B have been in compliance with applicable provisions of the CO2 Budget Trading Program Permit.

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a "possible exception to compliance." Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also, specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: CPCN#9136 states the NOx (when burning NG or ULSD) shall not exceed 36.4 lb/startup event (1CT or 2CTs) and 9.27 lb/shutdown event (1CT or 2CTs)

Probable Cause of Deviation: During start up of Perryman 6 in frigid temperatures, a malfunction of the water injection system led to elevated NOx pounds during startup.

Emission Units (unit IDs): CS6

Deviation Start: 2/11/21 0807hrs End: 2/11/21 0832hrs

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:___ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ___:____

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

United States Environmental Protection Agency

OMB No. 2060-0336,
Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
ANNUAL COMPLIANCE CERTIFICATION (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-510-00265

Reporting Period: Beg. 01 / 01 / 2021 End. 12 / 31 / 2021

Source / Company Name Philadelphia Road Generating Station

Mailing Address: Street or P.O. Box 3914 Pulaski Highway

City Baltimore State MD ZIP 21224 - _____

Contact person Daniel P. Lannon Title Plant Manager

Telephone (410) 470 - 0707 Ext. _____

Continued on next page

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.1.1A, 1.3A, 1.4A, 1.5A – Visible Emissions]

Applicable Standards:
COMAR 26.11.09.05A(2) - which prohibits visible emissions from any fuel burning equipment other than water in an uncombined form that are visible to a human observer.

COMAR 26.11.09.05A(3) - which allows visible emissions, during periods of load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment, not to exceed 40% opacity for more than 6 consecutive minutes in any 60-minule period.

Monitoring Requirements:
COMAR 26.112.03.06C -
1) Properly operate and maintain the combustion turbines in a manner to prevent visible emissions;
2) Verify no visible emissions when burning #2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of slack emissions for an 18-minute period once for each 168 hours a combustion turbine operates on No. 2 oil.

Perform the following if visible emissions are observed:
(a) Inspect combustion turbine operations;
(b) Perform all necessary adjustments and/or repairs to the combustion turbine within 48 operating hours so that visible emissions are eliminated;
(c) Document in writing the results of the inspections, adjustments and/or repairs to the combustion turbine; and
(d) If the required adjustments and/or repairs had not eliminated the visible emissions within the stipulated 48 operating hours, perform a Method 9 observation once daily for 18-minutes until corrective action has eliminated the visible emissions.

Recordkeeping Requirements:
COMAR 26.11.03.06C - Maintain for at least five years, operation manual and preventive maintenance plan; records of maintenance performed on the combustion turbines that relate to preventing visible emissions; a log of visible emission observations performed; records of hours that No. 2 fuel oil burned.

Reporting Requirements:
COMAR 26.11.01.07 and 26.11.03.06C(7) - Report incidents of visible emissions in accordance with Section III Condition 4 "Report of Excess Emissions and Deviations".

Compliance Methods for the Above (Description and Citation):
Philadelphia Road Generating Station properly operated and maintained the combustion turbines to prevent visible emissions in accordance with permit condition IV.1.3A. Method 9 observations were performed on Units 1-4 on 1/25; no visible emissions were observed.

Philadelphia Road Generating Station maintained on site, for at least five years, documents of maintenance performed on the combustion turbines that relate to preventing visible emissions, and a log of visible emission observations performed in accordance with permit condition IV.1.4A.

Philadelphia Road Generating Station reports any incidents of visible emissions in accordance with Section III Condition 4 "Report of Excess Emissions and Deviations" per permit condition IV.1.5A. No visible emissions were observed during the reporting period.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT

Permit Term (Describe requirements and cross-reference)
[Permit conditions IV.1.1B, 1.3B, 1.4B, 1.5B – Sulfur Oxides]

Applicable Standards:
COMAR 26.11.09.07 A(2)(b) – Do not burn No. 2 distillate fuel oil with sulfur content in excess of 0.3 percent by weight.

Monitoring Requirements:
COMAR 26.11.03.06C – Obtain certification from fuel supplier indicating sulfur content of the fuel oil or obtain sulfur in fuel analyses of the oil.

Recordkeeping Requirements:
COMAR 26.11.09.07C - Maintain for at least five years, fuel supplier's certification or the sulfur content in fuel analyses.

Reporting Requirements:
COMAR 26.11.09.07C - Report fuel supplier certification or copy of the sulfur in fuel analyses to the Department upon request.

Compliance Methods for the Above (Description and Citation):
Only No.2 distillate oil was burned in the units during the reporting period in accordance with permit condition IV.1.1B.

Philadelphia Road Generating Station retained on site, for at least five years, documents certifying the sulfur content for the fuel oil and made such records available to the Department upon request in accordance with permit conditions IV.1.4B and IV.1.5B.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.1.1C, 1.2C, 1.3C, 1.4C, 1.5C – Nitrogen Oxides]

Applicable Standards:
COMAR 26.11.09.08G – If operating fuel-burning equipment with a capacity factor of 15 percent or less:

a. provide certification of capacity factor to the Department in writing,
b. if equipment operates more than 500 hours during the calendar year, perform a combustion analysis and optimize combustion at least once annually; and
c. Maintain the results of the combustion analysis on site for at least 2 years.

If operating a combustion turbine with a capacity factor greater than 15 percent, meet an hourly average NOx emission rate of 42 ppm when burning gas or 65 ppm when burning fuel oil.

Testing Requirements:
COMAR 26.11.09.08G(1)(b) – Perform combustion analysis and optimize combustion at least annually when the turbines operate more than 500 hours in a calendar year.

COMAR 26.11.03.06C – If operating a combustion turbine with a capacity factor greater than 15 percent, perform EPA reference test within 120 days after exceeding the 15% capacity factor to demonstrate compliance with the 65 ppm limit. Submit a test protocol at least 30 days prior to the proposed test date.

Monitoring Requirements:
COMAR 26.11.03.06C – Calculate capacity factor for each unit at the end of each month.

Recordkeeping Requirements:
COMAR 26.11.09.08G(1)(c) and 26.11.03.06C – Maintain results of combustion analysis performed when the hours of operation exceed 500 hours. Records of the capacity factors.

Reporting Requirements:
COMAR 26.11.09.08G(1)(a) and 26.11.03.06C – Provide certification of the capacity factors to the Department as part of the Annual Emissions Certification.

Compliance Methods for the Above (Description and Citation):
The units did not operate more than 500 hours in 2021, therefore a combustion analysis was not required in accordance with permit condition IV.1.2C. The annual capacity factors were below 15% for each unit respectively, therefore, testing was not required in accordance with permit condition IV.1.2C.

Capacity factors were calculated, recorded and reported as part of the Annual Emissions Certification in accordance with permit conditions IV.1.3C, IV.1.4C, and IV.1.5C.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

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Emission Unit ID(s): PR-Unit 1 CT, PR-Unit 2 CT, PR-Unit 3 CT, PR-Unit 4 CT

Permit Term (Describe requirements and cross-reference)
[Permit Conditions IV.1.1D, 1.4D, 1.5D – Operational Limit]

Applicable Standards:
COMAR 26.11.02.09A – burn only No. 2 fuel oil unless apply and receive approval or permit from the Department to burn an alternate fuel.

Recordkeeping Requirements:
COMAR 26.11.03.06C – Maintain record of the hours of operation for each turbine.

Reporting Requirements:
COMAR 26.11.03.06C – Submit monthly hours of operation for the turbines to the Department in the Annual Emission Certification report.

Compliance Methods for the Above (Description and Citation):
Philadelphia Road Generating Station burned only No. 2 fuel oil in accordance with permit condition 1.1D.

Records of hours of operation were maintained and reported in the Annual Emission Certification report in accordance with permit conditions IV.1.4D and IV.1.5D.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

Emission Unit ID(s): Facility-wide

Permit Term (Describe requirements and cross-reference)
[Permit Section VI – State-only Conditions]

Applicable Standards:
COMAR 26.11.06.08 and 26.1.06.09 – Prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

COMAR 26.11.15.06 - Prohibit the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health.

Recordkeeping and Reporting Requirements:
Submit to the Department by April 1 of each year, a written certification of the results of an analysis of emissions of toxic air pollutants. The analysis shall include: a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or b) a revised compliance demonstration, developed in accordance with COMAR 26.11.15 and .16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Compliance Methods for the Above (Description and Citation):
No nuisance was generated by the facility during this reporting period.

Status (Check one): ___ Intermittent Compliance __X__ Continuous Compliance

CERTIFICATION OF PLANT-WIDE CONDITIONS
EXELON - PHILADELPHIA ROAD GENERATING STATION
PART 70 OPERATING PERMIT NO. 24-510-00265

(Section III of Part 70 Operating Permit)

Indicate compliance with the following requirements of Section III of your Part 70 Operating Permit in the Space provided below:

1. Particulate Matter from Construction and Demolition

The facility has been in compliance with applicable fugitive emissions control for any construction activities carried out during this reporting period.

2. Open Burning

No open burning occurred at the facility in 2021.

3. Air Pollution Episode

There were no requests for standby emissions reduction plans for air pollution episodes during this reporting period.

4. Report of Excess Emissions and Deviations

There were no reportable excess emissions or deviations.

5. Accidental Release Provisions

This requirement is not applicable to the facility.

6. General Testing Requirements

The facility was in compliance with general testing requirements.

7. Emissions Test Methods

All testing was performed using reference test methods.

8. Emissions Certification Report

The emissions certification report was submitted as required by April 1.

9. Compliance Certification Report

This compliance certification report is being submitted as required by April 1.

10. Certification by Responsible Official

All application forms, reports and compliance certifications were certified by a responsible official as required.

11. Sampling and Emissions Testing Record Keeping

Records specified in permit condition III.11 have been retained as required.

12. General Record Keeping

Records specified in permit condition III.12 have been retained as required.

13. General Conformity

This requirement is not applicable to the facility.

14. Asbestos Provisions

No renovation or demolition activities were conducted during this period.

15. Ozone Depleting Regulations

The facility was in compliance with applicable ozone depletion regulations during this reporting period.

16. Acid Rain Permit (if applicable)

This requirement is not applicable to the facility.

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a "possible exception to compliance." Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also, specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: No deviations in 2021

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

Permit Term for Which There was a Deviation:

Emission Units (unit IDs):

Deviation Start _____/_____/_____ ____:____ End:_____/_____/_____ ____:____

Date Written Report Submitted ____/____/_____

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