Maryland
Department of the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

Mr. Dominic Dibari
Asset Management Representative
CPV Maryland, LLC
8403 Colesville Road, Suite 915
Silver Spring, MD 20910

MAY 01 2024

Dear Mr. DiBari:

Re: Initial Part 70 Operating Permit- 24-017-0235 St. Charles Energy Center

Enclosed, please find the Part 70/Title V Operating Permit and Fact Sheet for the St. Charles Energy Center located in Waldorf, MD. The Permit will expire on June 30, 2028.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

Please note the following revised condition in the Permit under Section II, General Conditions, Number 5, Permit Renewal:

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

If you have any questions, please feel free to contact Mr. Mario Cora, Chief, Combustion and Metallurgical Division, at mario.cora@maryland.gov, or (410) 537-3230.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosures

cc: EPA Region III (w/encl)
Mr. Nick Bohl, Facility Manager

KEEP PERMIT AT SITE

CONTROL NO. B - 07632

Wes Moore
Governor

State of Maryland

Serena McIlwain
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-017-0235

DATE ISSUED MAY 01 2024

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE June 30, 2028

LEGAL OWNER & ADDRESS

CPV Maryland, LLC
8403 Colesville Road, Suite 915
Silver Spring, MD 20910
Attn: Mr. Dominic Dibari
Asset Management Representative

SITE

St. Charles Energy Center
5025 Thomas Edison Drive
Waldorf, MD 20602
AI # 32415

SOURCE DESCRIPTION

One 750-megawatt (MW), state-of-the-art, natural gas-fired, combined-cycle combustion turbine electric generating station.

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

Program Manager

Director, Air and Radiation Administration

CPV MARYLAND, LLC ST CHARLES ENERGY CENTER
5025 THOMAS EDISON DRIVE
WALDORF, MARYLAND 20602
PART 70 OPERATING PERMIT NO. 24-017- 0235

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APPENDIX A Acid Rain Permit

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CPV MARYLAND, LLC ST CHARLES ENERGY CENTER
5025 THOMAS EDISON DRIVE
WALDORF, MARYLAND 20602
PART 70 OPERATING PERMIT NO. 24-017- 0235

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

CPV Maryland, LLC (CPV), owns and operates the St. Charles Energy Center, which is a 750-megawatt (MW), state-of-the-art, natural gas-fired, combined-cycle combustion turbine electric generating station (SIC Code 4911). The facility is located approximately 4 miles south of Waldorf, Charles County, Maryland.

The St. Charles Energy Center's major air emissions sources consist of two GE 7FA.05 combustion turbines (CTs) with a heat recovery steam generator (HRSG) arranged in a two-on-one configuration with a steam turbine for additional electrical power generation. Ancillary equipment includes one (1) auxiliary boiler, one (1) fuel gas heater, one (1) emergency generator, one (1) emergency fire water pump, one (1) wet mechanical draft cooling tower, and four (4) diesel fired emergency generators sets to be used for black start events, each rated at 3,500 kilowatts.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU – 1	017-0235-5-0012	One (1) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.	September 2016
EU – 2	017-0235-5-0013	One (1) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.	September 2016
EU – 3	017-0235-5-0014	One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW.	September 2016

EU – 4	017-0235-5-0015	One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.	September 2016
EU – 5	017-0235-5-0016	One (1) natural gas fired auxiliary boiler rated at 28.3 MMBtu/hr equipped with low NOx burners.	September 2016
EU – 6	017-0235-6-0151	One (1) natural gas fired fuel gas heater rated at 9.5 MMBtu/hr.	September 2016
EU – 7	017-0235-9-0158	One (1) diesel fired emergency generator rated at 1,115 kilowatts.	September 2016
EU – 8	017-0235-9-0159	One (1) diesel fired fire water pump rated at 220 horsepower.	September 2016
EU – 9	017-0235-9-0160	One (1) ten-cell wet mechanical draft cooling tower controlled by drift eliminators.	September 2016
EU – 10	017-0235-9-0191, 9-0194, 9-0195, and 9-0196	Four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts.	August 2022

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
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COMAR	Code of Maryland Regulations
CSAPR	Cross State Air Pollution Rule
EPA	United States Environmental Protection Agency
FR	Federal Register
GHG	Greenhouse Gas
gr	grains
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
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
PM2.5	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 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 by (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]

[1]. The Permittee shall submit risk management plans by the date specified in 40 CFR 68.150.

The Permittee shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

or

[2]. 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 82.156.

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

The renewal Phase II Acid Rain Permit is attached as Appendix A. The Permittee shall comply with all applicable requirements contained in the Phase II Acid Rain Permit. The combustion turbines/HRSGs are subject to provisions under 40 CFR 72, Acid Rain Provisions.

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. [Authority: COMAR 26.11.03.06C(5)(g)]

Table IV – 1 Facility wide conditions	
1.0	**Emissions Unit Number(s) EU-1 thru EU-10** Two (2) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst. **[MDE Reg. No. 017-0235-5-0012 and 5-0013]** One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW. One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR. **[MDE Reg. No. 017-0235-5-0014 and 5-0015]** One (1) natural gas fired auxiliary boiler rated at 28.3 MMBtu/hr equipped with low NOx burners. **[MDE Reg. No. 017-0235-5-0016]** One (1) natural gas fired fuel gas heater rated at 9.5 MMBtu/hr. **[MDE Reg. No. 017-0235-6-0151]** One (1) diesel fired emergency generator rated at 1,115 kilowatts. **[MDE Reg. No. 017-0235-9-0158]** One (1) diesel fired fire water pump rated at 220 horsepower. **[MDE Reg. No. 017-0235-9-0159]**

Table IV – 1 Facility wide conditions

One (1) ten-cell wet mechanical draft cooling tower controlled by drift eliminators. **[MDE Reg. No. 017-0235-9-0160]**

Four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts. **[MDE Reg. No. 017-0235-9-0191, 9-0194, 9-0195 and 9-0196]**

1.1 **Applicable Standards/Limit:**

The following condition (s) applies to the facility.

Emissions and Operating Restrictions

(1) Plant-wide emissions, including emissions during periods of startup and shutdown, but excluding emissions from a Black Start Event, shall be limited to the following in any consecutive 12-month rolling period:

Pollutant	Emission Limit (tons per year)
Particulate Matter (PM) – Filterable	106.7
Particulate Matter (PM_{10}) – Filterable and Condensable	119.4
Particulate Matter ($PM_{2.5}$) – Filterable and Condensable	117.8
Nitrogen Oxides (NOx)	189.1
Carbon Monoxide (CO)	197.8
Volatile Organic Compounds (VOCs)	80.9
Greenhouse Gas (GHG) as Carbon Dioxide Equivalent (CO_2e)	2,667,018
Sulfuric Acid Mist (SAM)	9.3

[Reference: CPCN CPV Case 9437, Appendix A, Condition A-33]

Best Available Control Technology (BACT) Requirements

(2) The Permittee must operate the NOx CEMS at all times, including during startup and shutdown events. **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-28(b)]**

Table IV – 1 Facility wide conditions	
1.2	**Testing Requirements:** (1) At least 30 days prior to conducting any compliance stack test, the Permittee shall submit a test protocol to the Department for review and approval. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-35]** (2) Compliance stack testing shall be conducted in accordance with the Department's Technical Memorandum (TM) 91-01, "Test Methods and Equipment Specifications for Stationary Sources" (January 1991), as amended through Supplement 3 (October 1, 1997), 40 CFR Part 51, 40 CFR Part 60, or subsequent test protocols approved by the Department. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-35(a)]** (3) Test ports shall be located in accordance with TM 91-01 (January 1991), or subsequent or alternative measures approved by the Department. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-35(b)]** (4) In accordance with COMAR 26.11.01.04A, the Permittee may be required by the Department to conduct additional stack tests at any reasonable time, to determine compliance with COMAR Title 26, Subtitle 11. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-39]**
1.3	**Monitoring Requirements:** *Best Available Control Technology (BACT) Requirements* (1) Fugitive GHG emissions shall be evaluated from the natural gas piping and associated components through implementation of an audio, visual, and olfactory (AVO) program on a weekly basis. The AVO inspections shall be documented. Leaks identified from the AVO assessment shall be repaired within five (5) days of discovery, repairs documented, and associated repair records maintained. **[CPCN CPV Maryland Case 9437, Appendix A, Condition A-25]** (2) SF_6 leaks shall be minimized from the circuit breakers through installation of circuit breakers that are designed to meet ANSI C37.013 or equivalent to detect and minimize SF_6 leaks. Leaks detected shall be repaired within five (5) days of discovery, repairs documented, and associated repair records maintained.

Table IV – 1 Facility wide conditions	
	[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-26] (3) GHG emissions from the CTs / HRSGs, auxiliary boiler, fuel gas heater, the black start emergency generators, emergency generator, fire pump engine, natural gas piping components, and circuit breakers shall not exceed 2,667,018 tons, on a CO_2e basis, in any rolling 12-month period, excluding any Black Start Event. Each CT shall install a carbon dioxide (CO_2) CEMS as specified at 40 CFR Part 75. Emissions of CO_2 from the CT/HRSG units are to be monitored and recorded hourly utilizing a CO_2 CEMS installed, calibrated, and maintained in accordance with 40 CFR Part 75. As an alternative to installing a CO_2 CEMS, emissions of CO_2 from the CT/HRSG units are to be calculated in accordance with Equation G-4 in 40 CFR Part 75, Appendix G by continuously monitoring and monthly recording fuel flow. Data monitoring to determine CO_2 emissions shall include periods of startup and shutdown but excluding emissions from a Black Start Event. Methane (CH_4) and nitrous oxide (N_2O) emission from the CTs shall be calculated in accordance with the methodology and emission factors noted in 40 CFR Part 98, Subpart D. On a monthly basis, fuel consumption in Part C1(2) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(d)), coupled with the appropriate emission factors and global warming potentials (25 for CH_4 and 298 for N_2O), shall be used to calculate the CH_4 and N_2O emissions on a CO_2e basis. These emission rates, summed with the monthly CO_2 emissions monitored by the CEMS or other alternative method as specified in 40 CFR Part 75, shall establish GHG emissions from the CTs on a CO_2e basis. GHG emissions on a CO_2e basis from the auxiliary boiler, fuel gas heater, the black start emergency generators, emergency generator and fire water pump shall be calculated following the methodology in 40 CFR Part 98, Subpart C. GHG emissions on a CO_2e basis from the natural gas piping components shall be calculated following the methodology in 40 CFR Part 98, Subpart W; GHG emissions on a CO_2e basis from the circuit breakers shall be calculated following the methodology in 40 CFR Part 98, Subpart DD. These data shall be used to calculate the rolling 12-month total GHG emissions on a CO_2e basis and included with the quarterly report per Part E(3). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(c)]**

Table IV – 1 Facility wide conditions	
1.4	**Record Keeping Requirements:** (1) All records and logs required by the Part 70 Operating Permit (Title V) shall be maintained at the facility for at least five (5) years after the completion of the calendar year in which they were collected. These data shall be readily available for inspection by representatives of the Department. **[Reference: COMAR 26.11.01.05 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-55]** (2) The Permittee shall maintain at the facility for at least five (5) years records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following: (a) mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions; (b) accounts of the methods and assumptions used to quantify emissions; (c) all operating data, including operating schedules and production data, that were used in determinations of emissions; (d) amounts, types, and analyses of all fuels used; (e) any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including: (i) all emissions data generated by such monitors; (ii) all monitor calibration data; (iii) information regarding the percentage of time each monitor was available for proper service; and (iv) information concerning any equipment malfunctions.

Table IV – 1 Facility wide conditions	
	(f) information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including: (i) identifications and descriptions of all such equipment; (ii) operating schedules for each item of such equipment; (iii) accounts of any significant maintenance performed; (iv) accounts of all malfunctions and outages; and (v) accounts of any episodes of reduced efficiency. (g) limitations on source operation or any work practice standards that significantly affect emissions; and (h) other relevant information as required by the Department. *Best Available Control Technology (BACT) Requirements* (3) The Permittee must record the time, date, and duration of each startup (include rapid response or conventional) and shutdown event. The record must include calculations of NOx and VOC emissions during each event based on the CEMS data (CO CEMS will be used as a surrogate for VOC using the same correlation determined in Table A and per the parametric monitoring plan required by CPCN CPV Maryland Case 9437, Appendix A, Condition A-40)). Compliance with the developed CO startup and shutdown emission limits through CEMS monitoring shall indicate compliance with the VOC startup and shutdown emission rates to comply with LAER during startup and shutdown events. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-28(c)]**
1.5	**Reporting Requirements:** (1) The Permittee shall submit a report to the Department to be postmarked by the 30th day following the end of each calendar quarter that: (a) Summarizes separately the date, time, and duration of each startup (include rapid response or conventional), shutdown, and malfunction event that occurred for each

Table IV – 1 Facility wide conditions	
	CT during the reporting period. For each Conventional Startup event that occurred during the quarter, the report shall include the reason why a Rapid Response Startup was not technically feasible. The report shall include total emissions of NOx, CO, and VOC emissions associated with each event and an indication of whether each startup and shutdown event was in compliance with the emissions limits noted in Table A; (b) Summarizes the monthly and rolling 12-month total CT hours of operation, fuel consumption, heat input (MMBtu/hr), gross power output (MW), and total emissions of PM, PM_{10},$PM_{2.5}$, SAM, NOx, CO, CO_2e, and VOCs separately for each combustion turbine, including emissions from periods of Startup and Shutdown; (c) Provides the duct burner hours of operation and CTs hours of operation on a 12-month rolling basis; (d) Summarizes the monthly and rolling 12-month total hours of operation, fuel consumption and total emissions of PM, PM_{10}, $PM_{2.5}$, NOx, CO, CO_2e, and VOCs separately for the auxiliary boiler, emergency generator, each of the four black start emergency generators, fire water pump, and fuel gas heater; (e) Summarizes the rolling 12-month facility-wide emissions of PM, PM_{10}, $PM_{2.5}$, NOx, CO, CO_2e, VOCs, and SAM; (f) Includes the applicable emission limit for each pollutant; and (g) Includes all instances of deviation from permit requirements. (h) Describes: (i) the times, durations, and circumstances of any operations under black start events, and (ii) with respect to the four black start emergency generators, the times and durations of performance of maintenance, testing and operations conducted in accordance with 40 CFR 60.4211(f).

Table IV – 1 Facility wide conditions	
	[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-46] (2) Final results of each compliance stack test must be submitted to the Department within sixty (60) days after the completion of the test. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-47]** (3) All air quality notifications and reports required by the Title V permit shall be submitted to: Administrator, Compliance Program Air and Radiation Administration 1800 Washington Boulevard Baltimore MD 21230 **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-56]** (4) All notifications and reports required by 40 CFR Part 60, Subpart KKKK, Subpart IIII, Subpart Dc, and Subpart TTTT, 40 CFR Part 63, Subpart ZZZZ and the Acid Rain provisions, unless otherwise specified, shall be submitted to: Director, Air Protection Division U.S. EPA – Region 3 Mail Code 3AAP00 1650 Arch Street Philadelphia, Pennsylvania 19103-2029 **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-57]**

Table IV – 2	
2.0	**Emissions Unit Number(s) – EU-1, EU-2, EU-3 & EU-4** **MDE Reg. No. 017-0235-5-0012 & 017-0235-5-0013** Installed September 2016 Two (2) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst. **MDE Reg. No. 017-0235-5-0014 & 5-0015** Installed September 2016 One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW. One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.
2.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** "In Areas I, II, V, and VI, 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 greater than 20 percent opacity." **B. Control of NOx Emissions for Major Stationary Sources Demonstration of Compliance. – [COMAR 26.11.09.08B(2)]** (a) "A person subject to a NO_x emission standard in this regulation shall demonstrate compliance as follows: (i) For installations equipped with a CEM, compliance with the NO_x emissions standards in this regulation shall be established using CEM data." (ii) *Not applicable.* (b) "CEMs shall be certified in accordance with 40 CFR Part 60, Appendix B, or Part 75, Appendix A." (c) "CEMs shall meet the quality assurance criteria in 40 CFR Part 60, Appendix F, or, for sources subject to Title IV of the Clean Air Act (Acid Rain), the quality assurance criteria in 40 CFR Part 75, Appendix B." (d) "Except as otherwise established by the Department and approved by the EPA, for a person who establishes compliance with the NO_x emissions

Table IV – 2

standards in this regulation using a CEM, compliance shall be determined as 30-day rolling averages."

(e) *Not applicable.*

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. – [COMAR 26.11.09.08G(2)]

"A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NOx 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."

Note: During periods of start-up or shutdown the NOx lbs/event limit is listed in Table A.

C. Operational Limitations

(1) The Permittee shall comply with all of the requirements in Table A – Emissions Standards for CTs.

(2) The Permittee shall install a fuel flow meter and continuously monitor the fuel flow for each CT and the duct burner. The fuel usage shall be recorded at least on a monthly basis. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(d)]**

(3) The Permittee shall install, calibrate, and operate a CEMS at all times for each CT/HRSG that measures stack gas CO and CO_2 emissions. The CEMS installed on the combustion turbines shall conform to general quality assurance, monitoring, record keeping and reporting requirements as set forth in COMAR 26.11.01.11. As an alternative, CO_2 emissions can be monitored using Equation G-4 in 40 CFR Part 75, Appendix G. The CEMS shall meet the applicable requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 for CO, and 40 CFR Part 60, Subpart F, and Procedure 1. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(e)]**

(4) The Permittee shall install, calibrate, maintain, and operate a continuous NOx emissions monitoring system as described in 40

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CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F, 40 CFR §60.4335(b) and 40 CFR §60.4345. **[Reference: 40 CFR §60.4340(a) and (b) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(b)]**

Emissions and Operating Restrictions

(5) The Permittee shall limit emissions of ammonia resulting from un-reacted ammonia (ammonia slip) from each of the SCRs to be installed on the CTs/HRSGs as specified in Table A. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-32]**

(6) The CTs/HRSGs shall only be fueled with pipeline quality natural gas. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-45]**

40 CFR Part 60, Subpart KKKK Requirements

(7) The Permittee must meet the following emissions limits for NOx:

Combustion turbine type	**Combustion turbine heat input at peak load (HHV)**	**NOx emission standard**
New, modified, or reconstructed turbine firing natural gas	>850 MMBtu/h	15 parts per million (ppm) at 15 percent O_2 or 54 ng/J (nanograms per Joule) of useful output (0.43 lb/MWh (pounds per megawatt hour))
Heat recovery units operating independent of the combustion turbine	All sizes	54 ppm at 15 percent O_2 or 110 ng/J of useful output (0.86 lb/MWh).

[Reference: 40 CFR §60.4320(a) and 40 CFR Part 60, Subpart KKKK, Table 1]

Note: If the Permittee has two or more turbines that are connected to a single generator, each turbine must meet the emissions limits for NOx. **[Reference: 40 CFR §60.4320(b)]**

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(8) The Permittee must meet one of the following SO_2 emission limits:

(a) The Permittee must not cause to be discharged into the atmosphere from the subject stationary CT any gases which contain SO_2 in excess of 110 ng/J (0.90 lb/MWh gross output) or

(b) The Permittee must not burn in the stationary CT any fuel which contains total potential sulfur emissions in excess of 26 ng/J (0.060 lb SO_2/MMBtu) heat input. **[Reference: 40 CFR §60.4330(a)(1) and (2)]**

(9) The Permittee must operate and maintain the stationary CT, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. **[Reference: 40 CFR §60.4333(a)]**

(10) When an affected unit with heat recovery utilizes a common steam header with one or more CTs, the owner or operator shall either:

(a) Determine compliance with the applicable NOx emissions limits by measuring the emissions combined with the emissions from the other unit(s) utilizing the common heat recovery unit; or

(b) Develop, demonstrate, and provide information satisfactory to the Administrator on methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected CTs. The Administrator may approve such demonstrated substitute methods for apportioning the combined gross energy output measured at the steam turbine whenever the demonstration ensures accurate estimation of emissions related under this part. **[Reference: 40 CFR §60.4333(b)]**

Note: Compliance with the NOx emission limit is demonstrated by meeting the NOx BACT limit of 2.0 ppm.

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	(11) The Permittee must comply with the following for NOx CEMS: (a) Each NOx diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F to this part is not required. Alternatively, a NOx diluent CEMS that is installed and certified according to Appendix A of Part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis. (b) As specified in §60.13(e)(2), during each full unit operating hour, both the NOx monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOx emission rate for the hour. (c) Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flow meters that meet the installation, certification, and quality assurance requirements of Appendix D to Part 75 of this chapter are acceptable for use under this subpart. (d) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph

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by implementing the QA program and plan described in section 1 of Appendix B to Part 75 of this chapter.
[Reference: 40 CFR §60.4345]

40 CFR Part 60, Subpart TTTT Requirements

(12) The Permittee is subject to all operating requirements of 40 CFR Part 60, Subpart TTTT.

(1) **40 CFR Part 60 Subpart TTTT** – Greenhouse Gas Emissions for Electric Generating Units.
§60.5520 - What CO_2 emissions standard must I meet?
(**a**) For each affected EGU subject to this subpart, you must not discharge from the affected EGU any gases that contain CO_2 in excess of the applicable CO_2 emission standard specified in table 1 or **2** of this subpart, consistent with paragraphs (b), (c), and (d) of this section, as applicable.
(**b**) Except as specified in paragraphs (c) and (d) of this section, you must comply with the applicable gross energy output standard, and your operating permit must include monitoring, recordkeeping, and reporting methodologies based on the applicable gross energy output standard. For the remainder of this subpart (for sources that do not qualify under paragraphs (c) and (d) of this section), where the term "gross or net energy output" is used, the term that applies to you is "gross energy output."

Table 2 of Subpart TTTT of Part 60—CO_2 Emission Standards for Affected Stationary Combustion Turbines That Commenced Construction After January 8, 2014 and Reconstruction After June 18, 2014 (Net Energy Output-Based Standards Applicable as Approved by the Administrator)
[Note: Numerical values of 1,000 or greater have a minimum of 3 significant figures and numerical values of less than 1,000 have a minimum of 2 significant figures]

Affected EGU	CO_2 Emission standard
Newly constructed or reconstructed stationary combustion turbine that supplies more than its design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis and combusts more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis	450 kg of CO_2 per MWh of gross energy output (1,000 lb CO_2/MWh); or 470 kilograms (kg) of CO_2 per megawatt-hour (MWh) of net energy output (1,030 lb/MWh).

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(2) **GHG (as CO_2) BACT** requirements listed in the CPCN 9437: 1,000 lb/CO_2/MW-hr with and without duct firing (gross), at all times. (12-month rolling average).

See CO_2 Budget Permit attached as Appendix B.

BACT Requirements

(13) For the CTs and associated duct burners and HRSGs, BACT shall be the use of pipeline quality natural gas fuel only, operation of advanced dry low-NOx burner technology, utilization of SCR technology, operation of an oxidation catalyst, application of good combustion practices,

(a) The Permittee must operate the CO CEMS at all times, including during startup, shutdown, and Black Start events. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(a)]**

(b) The Permittee shall record the time, date, and duration of each startup (include rapid response or conventional) and shutdown event and the nominal power output of the CT (measured as a percent) during each startup and shutdown event. The record must include calculations of the CO, PM, PM_{10}, $PM_{2.5}$, and SAM emissions for each event. The Permittee shall calculate the CO emissions from the CEMS data. The PM, PM_{10}, $PM_{2.5}$, and SAM emissions during startup and shutdown events shall be calculated using the applicable emission factor determined from the most recent stack testing and the total recorded heat input (MMBtu) during the associated startup or shutdown event. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(b)]**

(14) Emissions from the CTs and associated duct burners and HRSGs shall meet the LAER limits as specified in Table A, except during periods of startup and shutdown, with the use of low NOx technology, and SCR, and an oxidation catalyst. CPV Maryland shall also comply with the following: The maximum total hours of duct burner firing for both CTs combined shall not exceed a total of 16,000 hours in any consecutive, rolling 12-month period. CPV Maryland shall monitor the total amount of hours operated for each CT and each duct burner. CPV Maryland shall report

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	quarterly, the actual total duct burner hours of operation and the actual total CT hours of operation on a rolling 12-month basis to demonstrate compliance. This information shall be included in the quarterly report required in Condition 1.5 of this Permit. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-28(a)]** *40 CFR Part 72 Requirements* (15) The Permittee is required to hold allowances in the unit's compliance subaccount not less than the total annual emissions of SO_2 for the previous year and comply with applicable Acid Rain limits for SO_2. **[Reference: 40 CFR §72.9(c) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(c)]**
2.2	**Testing Requirements:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Testing Requirements in Section 2.2.C. **B. Control of NOx Emissions for Major Stationary Sources Demonstration of Compliance. – [COMAR 26.11.09.08B(2)]** **General Requirements for Continuous Emissions Monitoring Systems (CEMS). – [COMAR 26.11.01.11B]** (1) "An owner or operator subject to this regulation shall: (a) Before installing a CEM, submit to the Department, for approval by the Department and EPA, a plan containing the CEM design specifications, proposed location, and a description of a proposed alternative measurement method; and (b) Install and operate a CEM in accordance with the plan approved by the Department and EPA under the provisions of §B(1)(a) of this regulation." (2) *Not applicable.* (3) *Not applicable.* "Except as otherwise approved by the Department, if the owner or operator is unable to obtain emissions data from CEMs because of a malfunction of the CEM for more than 2 hours in duration, the owner or

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operator shall use the alternative measurement method approved by the Department and EPA."

Quality Assurance for CEMS. – [COMAR 26.11.01.11C]
"A CEM used to monitor a gas concentration shall meet the quality assurance criteria of 40 CFR Part 60, Appendix F, as amended, which is incorporated by reference, or, if applicable, the quality assurance criteria of 40 CFR Part 75, Appendix B, as amended."

C. Operational Limitations

Notifications

(1) The designated representative of a CSAPR NO_X Ozone Season unit shall submit written notice to the Administrator in accordance with §75.61 of this chapter. **[Reference: 40 CFR §97.533]**

(2) The Permittee is subject to the notification requirements of 40 CFR §60.5550.

Testing

(3) A compliance stack testing of the CTs shall be conducted within 36 months after the issuance of the Part 70 Operating Permit (Title V) for the following pollutants: NOx, VOC, PM, PM_{10}, $PM_{2.5}$, CO, SAM, and ammonia and SO_2 (unless fuel sulfur content is determined through fuel sampling in lieu of stack testing in accordance with 40 CFR §60.4415 as noted in Table A). Continuous compliance with the emission limits specified in the CPCN for NOx, CO, and CO_2 shall be demonstrated by installing and operating a certified CEMS. The CO CEMS will be used as a surrogate for VOC to conduct continuous compliance demonstrations. The CEMS shall comply with applicable performance specifications in 40 CFR Part 60, Appendix B, Quality Assurance Procedures in 40 CFR Part 60, Appendix F, and applicable requirements in 40 CFR Part 75. As an alternative to a certified CEMS, CO_2 can be monitored using Equation G-4 in 40 CFR Part 75, Appendix G-4. When using Equation G-4, continuous demonstration of compliance with CO_2 limits shall be demonstrated by ongoing quality assurance for flow meters required per 40 CFR Part 75, Appendix D. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-36]**

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	(4) The Permittee shall conduct annual performance tests on the CTs, as required in 40 CFR §60.8 for NOx. **[Reference: 40 CFR §60.4400, 40 CFR §60.4415, and CPCN CPV Maryland Case 9437, Appendix A, Condition A-38]** (5) Compliance with the SO_2 emission standard in 40 CFR §60.4365 shall be demonstrated by either of the following: (a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input; or (b) Representative fuel sampling data which that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75 is required. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(a)]**
2.3	**Monitoring Requirements:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Monitoring Requirements in Section 2.3.C. **B. Control of NOx Emissions for Major Stationary Sources Demonstration of Compliance. – [COMAR 26.11.09.08B(2)] General Requirements for Continuous Emissions Monitoring Systems (CEMS). – [COMAR 26.11.01.11C]** (1) General. "A CEM required by this regulation is the primary method used by the Department to determine compliance or non-compliance with the applicable emission standards established in any permit or approval, administrative or court order, Certificate of

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Public Convenience and Necessity, or regulation in this subtitle."

(2) Data Reduction. "A CEM used to monitor a gas concentration shall record not less than four equally spaced data points per hour and automatically reduce data in terms of averaging times consistent with the applicable emission standard."

C. Operational Limitations

Monitoring

(1) The Permittee shall follow the calculation procedures set forth in 40 CFR §60.4350 for purposes of identifying excess emissions. **[Reference: 40 CFR §60.4350 and CPCN CPV Maryland Case 9437 Appendix A, Condition A-12(c)]**

(2) The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input using one of the methods given in 40 CFR §60.4365. If the Permittee elects to comply with the minimum fuel sulfur content limit under 40 CFR §60.4330, the Permittee must monitor the total sulfur content of the CTs fuel using the methods described in 40 CFR §60.4415 at a frequency described in 40 CFR §60.4370. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084-82, 94, 05, D4810-88 (1999), D5504-01, or D6228-98 (2003), or Gas Processors Association Standard 2377-86, may be used to assess compliance with the applicable fuel sulfur limit. **[Reference: 40 CFR §60.4360 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(d)]**

(3) For turbines required to monitor combustion parameters or parameters that document proper operation of the NO_x emission controls:

(a) An excess emission is a 4-hr rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.

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(b) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid. **[Reference: 40 CFR §60.4380(c)]**

Note: This requirement is satisfied by compliance with the BACT/LAER NOx limit.

(4) The Permittee to the extent applicable must comply with the monitoring requirements in 40 CFR Part 75. **[Reference: 40 CFR §72.9(b)(1) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(b)]**

(5) The Permittee is required to monitor, as applicable, opacity, SO_2, NOx, and CO_2 emissions; to ensure that continuous emission monitoring systems required by 40 CFR Part 75 meet the equipment, installation, and performance specifications in 40 CFR Part 75; and to maintain according to the quality assurance and quality control procedures in this part. **[Reference: 40 CFR §75.10 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(b)]**

(6) The Permittee is required to prepare a monitoring plan with sufficient information on applicable continuous opacity or emissions monitoring systems to demonstrate that all SO_2, NOx, CO_2 emissions and opacity, as required, are monitored and reported. **[Reference: 40 CFR §75.53(a) and CPCN CPV Maryland Case 9437, Appendix A Condition A-15(c)]**

(7) Emissions of CO_2 from the CTs are to be monitored and recorded hourly utilizing a data handling acquisition system (DHAS) installed, calibrated, and maintained in accordance with 40 CFR Part 75. **[Reference: 40 CFR §75.10(a)(3) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-41]**

(8) The Permittee is subject to the monitoring requirements of 40 CFR §60.5535 and §60.5540.

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2.4	**Record Keeping Requirements:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Record Keeping Requirements in Section 2.4.C. **B. Control of NOx Emissions for Major Stationary Sources, Demonstration of Compliance. – [COMAR 26.11.09.08B(2)]** See Record Keeping Requirements in Section 2.4.C. **C. Operational Limitations** *Record Keeping* (1) The Permittee shall maintain annual fuel use records for the CTs/HRSGs on site for not less than three years, and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08K and CPCN CPV Maryland Case 9437 Appendix A, Condition A-11(c)]** (2) The Permittee is required, unless otherwise provided, to retain required documents for a period of five (5) years from the date that the document was created. Documents may include, but are not limited to, certificates of representation, emissions monitoring information, copies of reports, compliance certifications, and other documentation pertaining to the Acid Rain program. **[Reference: 40 CFR §72.9(f) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(e)]** (3) The Permittee is required to keep a file for each affected unit of all measurements, data, reports, and other information required by 40 CFR Part 75 in a form suitable for inspection for at least three (3) years from the date of each record. **[Reference: 40 CFR §75.57(a) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(d)]** (4) The Permittee is required to record various operations, emissions, and other information, as specified. **[Reference: 40 CFR §75.57(b) through (f) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(e)]**

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	(5) The Permittee is subject to the record keeping requirements of 40 CFR §60.5560 and §60.5565.
2.5	**Reporting Requirements:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Monitoring Requirements in Section 2.3.C. **B. Control of NOx Emissions for Major Stationary Sources** **Record Keeping and Reporting Requirements. – [COMAR 26.11.01.11E]** (1) CEM System Downtime Reporting Requirements. (a) "All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown." (b) "The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data." (2) CEM Data Reporting Requirements. (a) "All test results shall be reported in a format approved by the Department." (b) "Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data." (c) "A quarterly summary report shall be submitted to the Department not later than 30 days following each

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calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;

(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;

(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data;

(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;

(v) Quarterly quality assurance activities;

(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and

(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."

(d) "All information required by this regulation to be reported to the Department shall be retained and made available for review by the Department for a minimum of 2 years from the time the report is submitted."

C. <u>Operational Limitations</u>

<u>Reporting</u>

(1) Per 40 CFR §60.4375, the Permittee shall submit reports of excess emissions and monitor downtime associated with the CTs, in accordance with 40 CFR §60.7(c). Excess emissions as defined in 40 CFR §60.4380 (NOx) and 40 CFR §60.4385 (SO_2) must be reported for all periods of unit operation, including startup, shutdown, and malfunction. **[Reference: CPCN CPV**

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	Maryland Case 9437, Appendix A, Condition A-50 and 40 CFR §60.4375(a)] (2) All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. **[Reference: 40 CFR §60.4395]** (3) In accordance to 40 CFR 77.3(d), the Permittee is required to submit a proposed offset plan if emission limitations are exceeded. **[Reference: 40 CFR §72.9(e) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(d)]** (4) The Permittee is required to comply with all reporting requirements, with all signatory requirements of 40 CFR §72.21 of this chapter for all submissions, and with all required certifications and reports. **[Reference: 40 CFR §75.60(a) and (b) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(f)]** (5) Unless otherwise approved by the Department, the Permittee shall submit electronic quarterly reports from the data acquisition and handling system (DAHS) for the CTs to the EPA Clean Air Markets Division System as specified in 40 CFR §75.64. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(g)]** (6) The Permittee is subject to the reporting requirements of **40 CFR §60.5555**.

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
2a.0	**Emissions Unit Number(s) – EU-1, EU-2, EU-3 & EU-4** **MDE Reg. No. 017-0235-5-0012 & 017-0235-5-0013** Installed September 2016 Two (2) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	MDE Reg. No. 017-0235-5-0014 & 5-0015 Installed September 2016 One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW. One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.
2a.1	**Applicable Standards/Limits:** **A. 40 CFR Part 97 Subpart AAAAA – CSAPR NO_x Annual Trading Program** **CSAPR NO_x Annual Trading Program requirements (40 CFR 97.406)** (1) **Designated representative requirements.** The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418. (2) **Emissions monitoring, reporting, and recordkeeping requirements.** (a) The owners and operators, and the designated representative, of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 through 97.435. §97.430 (general monitoring, including requirements for installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions and long-term cold storage); §97.431 (initial monitoring system certification and recertification procedures); §97.432 (monitoring system out-of-control periods); §97.433 (notifications concerning monitoring), §97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements) (b) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_x Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_x Annual emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with §§97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero. (3) **NO_x emissions requirements.** (a) CSAPR NO_x Annual emissions limitation. (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_x Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NO_x emissions for such control period from all CSAPR NO_x Annual units at the source. (ii) If total NO_x emissions during a control period in a given year from the CSAPR NO_x Annual units at a CSAPR NO_x Annual source are in excess of the CSAPR NO_x Annual emissions limitation set forth in paragraph (c)(1)(i) of this section, then: (A) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall hold the CSAPR NO_x Annual allowances required for deduction under §97.424(d); and (B) The owners and operators of the source and each CSAPR NO_x Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act. (b) CSAPR NO_x Annual assurance provisions. (i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Annual units at CSAPR NO_x Annual sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	period, where the common designated representative's share of such NO_X emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_X Annual allowances available for deduction for such control period under §97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with §97.425(b), of multiplying—(**A**) The quotient of the amount by which the common designated representative's share of such NO_X emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated representative's share of such NO_X emissions exceeds the respective common designated representative's assurance level; and (**B**) The amount by which total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level. (ii) The owners and operators shall hold the CSAPR NO_X Annual allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period. (iii) Total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total NO_X emissions exceed the sum, for such control period, of the State NO_X Annual trading budget under §97.410(a) and the State's variability limit under §97.410(b) (iv) It shall not be a violation of this subpart or of the Clean Air Act if total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in a State (and Indian country within the borders of such State) during a

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	control period exceed the State assurance level or if a common designated representative's share of total NOx emissions from the CSAPR NOx Annual units at CSAPR NOx Annual sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.. (v) To the extent the owners and operators fail to hold CSAPR NOx Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section' (A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and (B) Each CSAPR NOx Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act. (c) Compliance periods. (i) A CSAPR NOx Annual unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under §97.430(b) and for each control period thereafter. (ii) A CSAPR NOx Annual unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under §97.430(b) and for each control period thereafter. (d) Vintage of CSAPR NOx Annual allowances held for compliance. (i) A CSAPR NOx Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR NOx Annual allowance that was allocated or auctioned for such control period or a control period in a prior year. (ii) A CSAPR NOx Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) of this section for a control period in a

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	given year must be a CSAPR NO_x Annual allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year. (e) Allowance Management System requirements. Each CSAPR NO_x Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA. (f) Limited authorization. A CSAPR NO_x Annual allowance is a limited authorization to emit one ton of NO_x during the control period in one year. Such authorization is limited in its use and duration as follows: (i) Such authorization shall only be used in accordance with the CSAPR NO_x Annual Trading Program; and (ii) Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (g) Property right. A CSAPR NO_x Annual allowance does not constitute a property right. (4) **Title V permit requirements.** (a) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_x Annual allowances in accordance with 40 CFR part 97, subpart AAAAA. (b) A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under subpart H of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under §75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with 40 CFR 97.430 through 97.435 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with §§70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for

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	minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter. (5) **Additional recordkeeping and reporting requirements.** (a) Unless otherwise provided, the owners and operators of each CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator. (i) The certificate of representation under §97.416 for the designated representative for the source and each CSAPR NO_x Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.416 changing the designated representative.. **(ii)** All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA. (i) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_x Annual Trading Program. (b) The designated representative of a CSAPR NO_x Annual source and each CSAPR NO_x Annual unit at the source shall make all submissions required under the CSAPR NO_x Annual Trading Program, except as provided in §97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in parts 70 and 71 of this chapter. (6) **Liability.** (a) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual source or the designated representative of a CSAPR NO_x Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_x Annual units at the source. (b) Any provision of the CSAPR NO_x Annual Trading Program that applies to a CSAPR NO_x Annual unit or the designated

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	representative of a CSAPR NOx Annual unit shall also apply to the owners and operators of such unit. (7) **Effect on other authorities.** No provision of the CSAPR NOx Annual Trading Program or exemption under §97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NOx Annual source or CSAPR NOx Annual unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act. **B. 40 CFR Part 97 Subpart BBBBB – CSAPR NOx Ozone Season Trading Program** **CSAPR NOx Ozone Season Trading Program Requirements (40 CFR 97.506)** (1) **Designated representative requirements.** The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518. (2) **Emissions monitoring, reporting, and recordkeeping requirements.** (a) The owners and operators, and the designated representative, of each CSAPR NOx Ozone Season Group 1 source and each CSAPR NOx Ozone Season Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CF R 97.530 through 97.535. §97.530 (general monitoring, recordkeeping and reporting requirements, including requirements for installation, certification, and data accounting; compliance deadlines; reporting data; prohibitions; and long-term cold storage), §97.531 (initial monitoring system certification and recertification procedures), §97.532 (monitoring system out-of-control periods), §97.533 (notifications concerning monitoring), §97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements). (b) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of CSAPR NOx Ozone Season Group 1 allowances under §§97.511(a)(2) and (b) and 97.512 and to determine compliance

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	with the CSAPR NO_X Ozone Season Group 1 emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with §§97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero. (3) **NO_X emissions requirements.** (a) CSAPR NO_X Ozone Season Group 1 emissions limitation. (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_X Ozone Season Group 1 source and each CSAPR NO_X Ozone Season Group 1 unit at the source shall hold, in the source's compliance account, CSAPR NO_X Ozone Season Group 1 allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_X emissions for such control period from all CSAPR NO_X Ozone Season Group 1 units at the source. (ii) If total NO_X emissions during a control period in a given year from the CSAPR NO_X Ozone Season Group 1 units at a CSAPR NO_X Ozone Season Group 1 source are in excess of the CSAPR NO_X Ozone Season Group 1 emissions limitation set forth in paragraph (c)(1)(i) of this section, then: (A) The owners and operators of the source and each CSAPR NO_X Ozone Season Group 1 unit at the source shall hold the CSAPR NO_X Ozone Season Group 1 allowances required for deduction under §97.524(d); and (B) The owners and operators of the source and each CSAPR NO_X Ozone Season Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act.

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	(b) CSAPR NO_x Ozone Season Group 1 assurance provisions. (i) If total NO_x emissions during a control period in a given year from all CSAPR NO_x Ozone Season Group 1 units at CSAPR NO_x Ozone Season Group 1 sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_x emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_x Ozone Season Group 1 allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.525(b), of multiplying— (**A**) The quotient of the amount by which the common designated representative's share of such NO_x emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated representative's share of such NO_x emissions exceeds the respective common designated representative's assurance level; and (**B**) The amount by which total NO_x emissions from all CSAPR NO_x Ozone Season Group 1 units at CSAPR NO_x Ozone Season Group 1 sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level. (ii) The owners and operators shall hold the CSAPR NO_x Ozone Season Group 1 allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.. (iii) Total NO_x emissions from all CSAPR NO_x Ozone Season Group 1 units at CSAPR NO_x Ozone Season Group 1

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	sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total NO_x emissions exceed the sum, for such control period, of the State NO_x Ozone Season Group 1 trading budget under §97.510(a) and the State's variability limit under 40 CFR 97.510(b).. (iv) It shall not be a violation of this subpart or of the Clean Air Act if total NO_x emissions from all CSAPR NO_x Ozone Season Group 1 units at CSAPR NO_x Ozone Season Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a common designated representative's share of total NO_x emissions from the CSAPR NO_x Ozone Season Group 1 units at CSAPR NO_x Ozone Season Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level. (v) To the extent the owners and operators fail to hold CSAPR NO_x Ozone Season Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section, (A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and (B) Each CSAPR NO_x Ozone Season Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of this subpart and the Clean Air Act. (c) Compliance periods. (i) A CSAPR NO_x Ozone Season Group 1 unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter. (ii) A CSAPR NO_x Ozone Season Group 1 unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor

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	certification requirements under §97.530(b) and for each control period thereafter. (d) Vintage of CSAPR NOx Ozone Season Group 1 allowances held for compliance. (i) A CSAPR NOx Ozone Season Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR NOx Ozone Season Group 1 allowance that was allocated or auctioned for such control period or a control period in a prior year. (ii) A CSAPR NOx Ozone Season Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) of this section for a control period in a given year must be a CSAPR NOx Ozone Season Group 1 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year. (e) Allowance Management System requirements. Each CSAPR NOx Ozone Season Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB. (f) Limited authorization. A CSAPR NOx Ozone Season Group 1 allowance is a limited authorization to emit one ton of NOx during the control period in one year. Such authorization is limited in its use and duration as follows: (i) Such authorization shall only be used in accordance with the CSAPR NOx Ozone Season Group 1 Trading Program; and (ii) Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (g) Property right. A CSAPR NOx Ozone Season Group 1 allowance does not constitute a property right. (4) **Title V permit requirements.** (a) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NOx Ozone Season

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	Group 1 allowances in accordance with 40 CFR part 97, subpart BBBBB. (b) A description of whether a unit is required to monitor and report NO_x emissions using a continuous emission monitoring system (under subpart H of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with 40 CFR 97.530 through 97.535 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter. (5) **Additional recordkeeping and reporting requirements.** (a) Unless otherwise provided, the owners and operators of each CSAPR NO_x Ozone Season Group 1 source and each CSAPR NO_x Ozone Season Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator. (i) The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each CSAPR NO_x Ozone Season Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.516 changing the designated representative. (ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB.

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	(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_X Ozone Season Group 1 Trading Program. (b) The designated representative of a CSAPR NO_X Ozone Season Group 1 source and each CSAPR NO_X Ozone Season Group 1 unit at the source shall make all submissions required under the CSAPR NO_X Ozone Season Group 1 Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in parts 70 and 71 of this chapter. (6) **Liability.** (a) Any provision of the CSAPR NO_X Ozone Season Group 1 Trading Program that applies to a CSAPR NO_X Ozone Season Group 1 source or the designated representative of a CSAPR NO_X Ozone Season Group 1 source shall also apply to the owners and operators of such source and of the CSAPR NO_X Ozone Season Group 1 units at the source. (b) Any provision of the CSAPR NO_X Ozone Season Group 1 Trading Program that applies to a CSAPR NO_X Ozone Season Group 1 unit or the designated representative of a CSAPR NO_X Ozone Season Group 1 unit shall also apply to the owners and operators of such unit. (7) **Effect on other authorities.** No provision of the CSAPR NO_X Ozone Season Group 1 Trading Program or exemption under §97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_X Ozone Season Group 1 source or CSAPR NO_X Ozone Season Group 1 unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act. **C. 40 CFR Part 97 Subpart CCCCC – CSAPR SO_2 Group 1 Trading Program** **<u>CSAPR SO_2 Group 1 Trading Program requirements (40 CFR 97.606)</u>** (1) **Designated representative requirements.** The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate

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	designated representative, in accordance with 40 CFR 97.613 through 97.618. (2) **Emissions monitoring, reporting, and recordkeeping requirements.** (a) The owners and operators, and the designated representative, of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 through 97.635. §97.630 (general monitoring, recordkeeping and reporting requirements, including requirements for installation, certification, and data accounting; compliance deadlines, reporting data; prohibitions; and long-term cold storage), §97.631 (initial monitoring system certification and recertification procedures), §97.632 (monitoring system out-of-control periods), §97.633 (notifications concerning monitoring), §97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements). (b) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO_2 Group 1 emissions limitation and assurance provisions under paragraph (c) of this section, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero. (3) **SO_2 emissions requirements.** (a) CSAPR SO_2 Group 1 emissions limitation. (i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a)

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	in an amount not less than the tons of total SO_2 emissions for such control period from all CSAPR SO_2 Group 1 units at the source. (ii) If total SO_2 emissions during a control period in a given year from the CSAPR SO_2 Group 1 units at a CSAPR SO_2 Group 1 source are in excess of the CSAPR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) of this section, then: (A) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall hold the CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and (B) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act. (b) CSAPR SO_2 Group 1 assurance provisions. (i) If total SO_2 emissions during a control period in a given year from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in a State (and Indian country within the borders of such State) exceed the State assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO_2 emissions during such control period exceeds the common designated representative's assurance level for the State and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying— (**A**) The quotient of the amount by which the common designated representative's share of such SO2 emissions exceeds the common designated representative's assurance level divided by

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	the sum of the amounts, determined for all common designated representatives for such sources and units in the State (and Indian country within the borders of such State) for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and (**B**) The amount by which total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level. (ii) The owners and operators shall hold the CSAPR SO_2 Group 1 allowances required under paragraph (c)(2)(i) of this section, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period. (iii) Total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in a State (and Indian country within the borders of such State) during a control period in a given year exceed the State assurance level if such total SO_2 emissions exceed the sum, for such control period, of the State SO_2 Group 1 trading budget under §97.610(a) and the State's variability limit under §97.610(b). (iv) It shall not be a violation of 40 CFR part 97 subpart CCCCC or of the Clean Air Act if total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a common designated representative's share of total SO_2 emissions from the CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.. (v) To the extent the owners and operators fail to hold CSAPR SO_2 Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) of this section, (A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

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	(B) Each CSAPR SO_2 Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) of this section and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act. (c) Compliance periods. (i) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(1) of this section for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter. (ii) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(2) of this section for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter. (d) Vintage of CSAPR SO_2 Group 1 allowances held for compliance. (i) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) of this section for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated or auctioned for such control period or a control period in a prior year. (ii) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) of this section for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year. (e) Allowance Management System requirements. Each CSAPR SO_2 Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC. (f) Limited authorization. A CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows:

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	(i) Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and (ii) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (g) Property right. A CSAPR SO_2 Group 1 allowance does not constitute a property right. (4) **Title V permit requirements.** (a) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC. (b) A description of whether a unit is required to monitor and report SO_2 emissions using a continuous emission monitoring system (under subpart B of part 75 of this chapter), an excepted monitoring system (under appendices D and E to part 75 of this chapter), a low mass emissions excepted monitoring methodology (under40 CFR 75.19 of this chapter), or an alternative monitoring system (under subpart E of part 75 of this chapter) in accordance with 40 CFR 97.630 through 97.635 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1) of this chapter, provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B) of this chapter. (5) **Additional recordkeeping and reporting requirements.** (a) Unless otherwise provided, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	(i) The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under §97.616 changing the designated representative. (ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC. (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO_2 Group 1 Trading Program. (b) The designated representative of a CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the CSAPR SO_2 Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in parts 70 and 71 of this chapter. (6) **Liability.** (a) Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 source or the designated representative of a CSAPR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO_2 Group 1 units at the source. (b) Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 unit or the designated representative of a CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit. (7) **Effect on other authorities.** No provision of the CSAPR SO_2 Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO_2 Group 1 source or CSAPR SO_2 Group 1 unit from compliance with any other provision of the

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.
2a.2	**Testing Requirements:** **A. 40 CFR Part 97 Subpart AAAAA – CSAPR NO_X Annual Trading Program** See Monitoring Requirements. **B. 40 CFR Part 97 Subpart BBBBB – CSAPR NO_X Ozone Season Trading Program** See Monitoring Requirements. **C. 40 CFR Part 97 Subpart CCCCC – CSAPR SO_2 Group 1 Trading Program** See Monitoring Requirements.
2a.3	**Monitoring Requirements:** **A. 40 CFR Part 97 Subpart AAAAA – CSAPR NO_X Annual Trading Program** The Permittee shall comply with the monitoring requirements found in §97.406, §97.430, and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB – CSAPR NO_X Ozone Season Trading Program** The Permittee shall comply with the monitoring requirements found in §97.506, §97.530, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC – CSAPR SO_2 Group 1 Trading Program** The Permittee shall comply with the monitoring requirements found in §97.606, §97.630, §97.631, §97.632, and §97.633.
2a.4	**Record Keeping Requirements:** **A. 40 CFR Part 97 Subpart AAAAA – CSAPR NO_X Annual Trading Program**

Table IV – 2a: Cross State Air Pollution Rule (CSAPR)	
	The Permittee shall comply with the recordkeeping requirements found in §97.406, §97.430, and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB – CSAPR NO_X Ozone Season Trading Program** The Permittee shall comply with the recordkeeping requirements found in §97.506, §97.530, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC – CSAPR SO_2 Group 1 Trading Program** The Permittee shall comply with the recordkeeping requirements found in §97.606, §97.630, and §97.634.
2a.5	**Reporting Requirements:** **A. 40 CFR Part 97 Subpart AAAAA – CSAPR NO_X Annual Trading Program** The Permittee shall comply with the reporting requirements found in §97.406, §97.430, §97.433 and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB – CSAPR NO_X Ozone Season Trading Program** The Permittee shall comply with the reporting requirements found in §97.506, §97.530, §97.533, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC – CSAPR SO_2 Group 1 Trading Program** The Permittee shall comply with the reporting requirements found in §97.606, §97.630, §97.633 and §97.634.

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3.0	**Emissions Unit Number(s): EU-5 & EU-6** **MDE Reg. No. 5-0016** Installed September 2016. One (1) natural gas fired auxiliary boiler rated at 28.3 MMBtu/hr equipped with low NOx burners. **MDE Reg. No. 6-0151** Installed September 2016. One (1) natural gas fired fuel gas heater rated at 9.5 MMBtu/hr.
3.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions** **Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** "In Areas I, II, V, and VI, 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 greater than 20 percent opacity." **B. Control of NOx Emissions** **Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]** "A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall: (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each; (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis; (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request; (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

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C. Operational Limits

(1) The auxiliary boiler and fuel gas heater shall each be fueled exclusively on pipeline quality natural gas at all times when operating. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-16(c) and A-45]**

(2) The auxiliary boiler is subject to 40 CFR Part 60, Subpart Dc, which contains various provisions for notification (40 CFR §60.48c(a)) and record keeping (40 CFR §60.48c(g) and 40 CFR §60.48c(i)). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-17]**

(3) In accordance with EPA Reference Method 22, visible observations shall be performed at least once each calendar quarter to verify that there are no visible emissions during operation. If the auxiliary boiler or fuel gas heater is not operated in a quarter, the Permittee shall document this and no visible emission observation is required. If visible emissions are observed, the Permittee shall inspect the combustion control system, perform necessary adjustments and/or repairs within 48 hours, and document in writing the results of inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform EPA Reference Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.119.09.05A(1) and (5), COMAR 26.11.02.02H and CPCN CPV Maryland Case 9437, Appendix A, Condition A-18]**

Other Emissions and Operating Restrictions

(4) The Permittee shall install a fuel flow meter on each of the auxiliary boiler and fuel gas heater, and continuously monitor the fuel flow to each. The fuel flow shall be recorded monthly. The total monthly and rolling 12-month total heat input to the boiler shall be calculated and included in the quarterly report to demonstrate compliance with the heat input limit in Part C(5) and (6). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-34]**

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BACT Requirements (5) For the auxiliary boiler, BACT shall be achieved through the use of natural gas fuel only, operation of low-NO_x burner technology, application of good combustion practices, and a maximum heat input to the auxiliary boiler of 113,200 MMBtu for any rolling 12-month period. In addition, the following emission limitations shall apply: (a) Emissions of NOx shall not exceed 0.011 lbs/MMBtu on a 3-hr block average basis; (b) Emissions of CO shall not exceed 0.02 lbs/MMBtu on a 3-hr block average basis; (c) Emissions of PM and PM_{10} shall each not exceed 0.005 lbs/MMBtu on a 3-hr block average basis; (d) The heat input of the auxiliary boiler is limited to no more than 113,200 MMBtu in any rolling 12-month period; and (e) Project-wide GHG emissions (on a CO_2e basis) shall not exceed 2,667,018 tons in any rolling 12-month period. CH_4 and N_2O emissions from the auxiliary boiler shall be calculated in accordance with the methodology and emission factors noted in 40 CFR Part 98, Subpart C. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming potentials (25 for CH_4 and 298 for N_2O), shall be used to calculate the CH_4 and N_2O emissions on a CO_2e basis. These emission rates, summed with the monthly CO_2 emissions based on 40 CFR Part 98, Subpart C or other methods approved by the Department shall be used to calculate GHG emissions from the auxiliary boiler on a CO_2e basis. To demonstrate compliance with the GHG BACT determination, the Permittee shall conduct an annual combustion analysis on the auxiliary boiler and fuel gas heater. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-21]**

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	LAER Requirements (6) LAER for the auxiliary boiler shall be achieved through the use of natural gas fuel only, operation of low-NOx burner technology, application of good combustion practices, and a maximum heat input to the auxiliary boiler of 113,200 MMBtu for any rolling 12-month period. Emissions from the auxiliary boiler shall not exceed the following emission limits to meet LAER: (a) NOx emissions shall not exceed 0.011 lb/MMBtu on a 3-hr block average basis; and (b) VOC emissions shall not exceed 0.002 lb/MMBtu on a 3-hr block average basis. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-29]** (7) To meet LAER, the fuel gas heater shall be designed to meet the following limitations to be achieved through the exclusive use of pipeline quality natural gas and good combustion practices: (a) NOx emissions shall not exceed 0.035 lb/MMBtu on a 3-hr block average basis; and (b) VOC emissions shall not exceed 0.005 lb/MMBtu on a 3-hr block average. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-31]**
3.2	**Testing Requirements:** **A. Control of Visible Emissions Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Record Keeping and Reporting Requirements in Section 3.4.A and 3.5.A. **B. Control of NOx Emissions Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]** See Record Keeping and Reporting Requirements in Section 3.4.B and 3.5.B.

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	C. Operational Limits See Monitoring Requirements in Section 3.3.C.
3.3	**Monitoring Requirements:** **A. Control of Visible Emissions** **Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** The Permittee shall perform visible observation in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If the auxiliary boiler or fuel gas heater is not operated in a quarter, the Permittee shall document this and no visible emission observation is required. If visible emissions are observed, the Permittee shall inspect the combustion control system, perform necessary adjustments and/or repairs within 48 hours, and document in writing the results of inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform EPA Reference Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.119.09.05A(1) and (5), COMAR 26.11.02.02H and CPCN CPV Case 9437, Appendix A, Condition A-18]** **B. Control of NOx Emissions** **Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]** See Record Keeping and Reporting Requirements in Section 3.4.B and 3.5.B. **C. Operational Limits** The Permittee shall follow the monitoring requirements as described in Section 3.1(C)(4).

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3.4	**Record Keeping Requirements:** **A. Control of Visible Emissions** **Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Record Keeping and Reporting Requirements in Section 3.4.C. **B. Control of NOx Emissions** **Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]** See Record Keeping and Reporting Requirements in Section 3.4.C. **C. Operational Limits** ***Applies to the auxiliary boiler only.*** The Permittee must keep the following records for at least five (5) years in a form suitable and readily available for expeditious review: (a) Hours of operation of the auxiliary boiler and (b) Records of the amounts of fuel combusted during each calendar month. **[Reference: 40 CFR §60.48c(g)(2), 40 CFR §60.48c(i) and COMAR 26.11.03.06C]**
3.5	**Reporting Requirements:** **A. Control of Visible Emissions** **Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]** See Reporting Requirements in Section 3.5.C. **B. Control of NOx Emissions** **Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]** See Reporting Requirements in Section 3.5.C.

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	C. Operational Limits The Permittee shall follow the reporting requirements as described in Section 3.1(C)(4).

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4.0	Emissions Unit Number(s) EU-7 & EU-8 **MDE Reg. No. 9-0158** One (1) diesel fired emergency generator rated at 1,115 kilowatts. **MDE Reg. No. 9-0159** One (1) diesel fired fire water pump rated at 220 horsepower.
4.1	Applicable Standards/Limits: A. Control of Visible Emissions Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)] (2) Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." (3) Emissions During Operating Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity." (4) Exceptions. (a) "Section E(2) of this regulation 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." (b) "Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

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(i) Engines that are idled continuously when not in service: 30 minutes;
(ii) All other engines: 15 minutes."

(c) "Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. <u>Control of Sulfur Oxides from Fuel Burning Equipment</u>. – **[COMAR 26.11.09.07A(1)(c)]**
"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: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

C. <u>Operational Limits</u>

(1) The units are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and recordkeeping requirements (40 CFR §60.4200 *et seq.*), and related applicable provisions of 40 CFR §60.7 and 40 CFR §60.8. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(d)]**

(2) The units are subject to the NESHAP for Stationary Reciprocating Internal Combustions Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and record keeping requirements. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(e)]**

<u>40 CFR Part 60, Subpart IIII Requirements</u>
Conditions (3) through (6) apply to the emergency diesel fired generator (ARMA Registration No. 017-0235-9-0158) only.

(3) Exhaust emissions from the diesel fired emergency generator must not exceed:

(a) Non-methane hydrocarbons (NMHC) + NO_X: 6.4 grams per kilowatt hour (g/kW-hr);

(b) CO: 3.5 (g/kW-hr); and

(c) PM: 0.2 (g/kW-hr).

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	[Reference: 40 CFR §60.4205(b), 40 CFR §60.4202(a)(2), 40 CFR §89.112(a) and Table 1] **Note:** This emission limits expressed in g/kW-hr are equivalent to the CPCN limits expressed in g/Hp-hr. (4) Exhaust opacity from the emergency generator must not exceed: (a) 20 percent during the acceleration mode; (b) 15 percent during the lugging mode; and (c) 50 percent during the peaks in either the acceleration or lugging modes. **[Reference: 40 CFR §60.4205(b) 40 CFR §60.4202(a)(2), and 40 CFR §89.113(a)]** (5) There is no time limit on the use of the emergency generator in emergency situations. **[Reference: 40 CFR §60.4211(f)(1)]** (6) The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Reference: 40 CFR §60.4211(f)(2)(i)]** **Note:** Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted. ***Conditions (7) and (8) apply to the fire water pump engine only.***

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	(7) The displacement of the emergency diesel fired generator shall be less than 10 liters per cylinder. **[Reference: 40 CFR §60.4205(c)]** (8) The diesel fired fire water pump must meet the following emissions standards: (a) NMHC + NOx: 4.0 g/kW-hr; (b) CO: 3.5 g/kW-hr; and (c) PM: 0.20 g/kW-hr. **[Reference: 40 CFR §60.4205(c) and 40 CFR Part 60, Subpart IIII, Table 4]** ***Conditions (9) through (11) apply to both the emergency generator and the fire water pump.*** (9) The Permittee must operate and maintain the diesel fired emergency generator and the diesel fired fire water pump that achieves the emission standards as required in 40 CFR §60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. **[Reference: 40 CFR §60.4206]** (10) The diesel fuel used in the emergency generator and the fire water pump must meet the following specifications: (a) Sulfur content – 15 ppm maximum (b) Cetane index or aromatic content as follows: (i) A minimum cetane index of 40; or (ii) A maximum aromatic content of 35 volume percent. **[Reference: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]** (11) The Permittee must operate and maintain the diesel fired emergency generator and the diesel fired fire water pump according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. The Permittee may only change those settings that are permitted by the manufacturer. The Permittee must meet the requirements of 40 CFR Part 89. **[Reference: 40 CFR §60.4211(a)]**

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BACT/LAER Requirements

(12) The nominal 1,115 kW emergency diesel generator shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the emergency generator:

(a) Combined NOx and NMHC emission shall not exceed 6.4 grams per kilowatt hour (g/kW-hr);

(b) CO emissions shall not exceed 3.5 g/kW-hr; and

(c) PM emissions shall each not exceed 0.2 g/kW-hr. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]**

(13) The nominal 220 hp fire water pump engine shall be designed to meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including emission limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the fire water pump:

(a) Combined NOx and NMHC emissions shall not exceed 4.0 grams per kilowatt hour (g/kW-hr);

(b) CO emissions shall not exceed 3.5 g/kW-hr; and

(c) PM emissions shall each not exceed 0.2 g/kW-hr. **[CPCN CPV Maryland Case 9437, Appendix A, Condition A-23]**

(14) For the emergency generator and the fire water pump, the Permittee shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-42 and A-43]**

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	(15) The emergency generator and fire water pump engine shall each be fueled with ultra-low sulfur diesel fuel with a sulfur content not to exceed 15 ppmw. **[Reference: 40 CFR §60.4207 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-44]**
4.2	**Testing Requirements:** **A. Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C. **B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C. **C. Operational Limits** See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C.
4.3	**Monitoring Requirements:** **A. Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C. **B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C.

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	C. Operational Limits See Record Keeping and Reporting Requirements in Section 4.4.C and 4.5.C.
4.4	**Record Keeping Requirements:** **A. Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping in Section 4.4.C. **B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping in Section 4.4.C. **C. Operational Limits** The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information: (a) A log of emergency generator operation indicating the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.). (b) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. (c) The certifications of compliance or manufacturer engine test data for the diesel fired emergency generator and the diesel fired fire water pump required by 40 CFR §60.4211 and §60.4214(b).

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4.5	**Reporting Requirements:** **A. Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Reporting in Section 4.5.C. **B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Reporting in Section 4.5.C. **C. Operational Limits** *Reporting* The Permittee shall provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information: (a) The name of the fuel oil supplier (b) The sulfur content of the fuel oil; (c) The method used to determine the sulfur content of the fuel oil. ASTM D129-00, D2622-98, D4294-02, D126-98, D5453-00, or D1552-01 may be used; and (d) A statement that the sampling was performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" and that no additions have been made to the supplier's tank since sampling. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-53]**

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5.0	**Emissions Unit Number(s) EU-9** **MDE Reg. No. 9-0160** One (1) ten-cell wet mechanical draft cooling tower controlled by drift eliminators.
5.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions** **Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]** "In Areas I, II, V, VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity." **B. Operational Limits** The cooling tower shall be designed with high efficiency drift eliminators to achieve a drift loss not to exceed 0.0005% of recirculating water flow. Not less than once per calendar year, the owner/operator shall conduct a complete inspection of the tower to ensure the drift eliminators are clean and in good working condition. This inspection report shall be kept on-site and a copy provided to the Department upon request. **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-27]**
5.2	**Testing Requirements:** **A. Control of Visible Emissions** **Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]** See Monitoring Requirements in Section IV, 1.3.(1). **B. Operational Limits** See Monitoring Requirements in Section IV, 1.3.(1).
5.3	**Monitoring Requirements:** **A. Control of Visible Emissions** **Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]**

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	See Monitoring Requirements in Section IV, 1.3.(1). **B. Operational Limits** See Monitoring Requirements in Section IV, 1.3.(1).
5.4	**Record Keeping Requirements:** **A. Control of Visible Emissions** **Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]** See Monitoring Requirements in Section IV, 1.4.(1). **B. Operational Limits** See Record Keeping Requirements in Section IV, 1.4.(1).
5.5	**Reporting Requirements:** **A. Control of Visible Emissions** **Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]** See Monitoring Requirements in Section IV, 1.5.(1). **B. Operational Limits** See Reporting Requirements in Section IV, 1.5.(1).

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6.0	**Emissions Unit Number(s) EU-10** **MDE Reg. No. 9-0191, 9-0194, 9-0195, and 9-0196** Four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts.
6.1	**Applicable Standards/Limits:** **A. Control of Visible Emissions**

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	Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)] (2) Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." (3) Emissions During Operating Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity." (4) Exceptions. (a) "Section E(2) of this regulation 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." (b) "Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; (ii) All other engines: 15 minutes." (c) "Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics." **B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** "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: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent." **C. Operational Limits** (1) The units are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and recordkeeping requirements (40 CFR §60.4200 *et seq.*), and related applicable provisions of 40 CFR §60.7 and 40 CFR §60.8. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(d)]**

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	(2) The units are subject to the NESHAP for Stationary Reciprocating Internal Combustions Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and record keeping requirements. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(e)]** *40 CFR Part 60, Subpart IIII Requirements* **Conditions (3) through (8) state the Subpart IIII Requirements that are applicable to the four (4) diesel fired emergency generators sets to be used for black start.** (3) The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra-low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to each black start emergency generator: (a) Combined NOx and non-methane hydrocarbons (NMHC) emissions shall not exceed 6.4 grams per kilowatt-hour (g/kw-hr); (b) CO emissions shall not exceed 3.5 g/kw-hr; (c) PM emissions shall each not exceed 0.20 g/kw-hr; and **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]** (4) There is no time limit on the use of the four (4) diesel fired emergency generators sets to be used for black start, in emergency situations. **[Reference: 40 CFR §60.4211(f)(1)]** (5) The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to

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	be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Reference: 40 CFR §60.4211(f)(2)(i)]** **Note:** Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted. (6) The Permittee must operate and maintain the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, that achieves the emission standards as required in 40 CFR §60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. **[Reference: 40 CFR §60.4206]** (7) The diesel fuel used in the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, must meet the following specifications: (a) Sulfur content – 15 ppm maximum (b) Cetane index or aromatic content as follows: (i) A minimum cetane index of 40; or (ii) A maximum aromatic content of 35 volume percent. **[Reference: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]** (8) The Permittee must operate and maintain the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. The Permittee may only change those settings that are permitted by the manufacturer. The Permittee must meet the requirements of 40 CFR Part 89.

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[Reference: 40 CFR §60.4211(a)]

BACT/LAER Requirements

(9) The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra-low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the emergency generator:

(a) Combined NOx and non-methane hydrocarbons (NMHC) emissions shall not exceed 6.4 grams per kilowatt-hour (g/kw-hr);

(b) CO emissions shall not exceed 3.5 g/kw-hr; and

(c) PM emissions shall each not exceed 0.20 g/kw-hr.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]

(10) To meet LAER, the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts shall be designed so that the combined NOx and non-methane hydrocarbon (NMHC) emissions shall not exceed 6.4 g/kw-hr. These emission limits will be achieved through the exclusive use of ultra-low sulfur fuel and restrictions on hours of operation of 100 hours for any consecutive rolling 12-month period for routine maintenance.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-30]

(11) For the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, the Permittee shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-42]**

(12) The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall each be fueled with

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	ultra-low sulfur diesel fuel with a sulfur content not to exceed 15 ppmw. **[Reference: 40 CFR §60.4207 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-44]**
6.2	**Testing Requirements:** A. **Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C. B. **Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C. C. **Operational Limits** See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C.
6.3	**Monitoring Requirements:** A. **Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C. B. **Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C. C. **Operational Limits**

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	See Record Keeping and Reporting Requirements in Section 6.4.C and 6.5.C.
6.4	**Record Keeping Requirements:** A. **Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]** See Record Keeping in Section 6.4.C. B. **Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]** See Record Keeping in Section 6.4.C. C. **Operational Limits** The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information: (a) A log of emergency generator operation indicating the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.). (b) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. (c) The certifications of compliance or manufacturer engine test data for the four (4) black start diesel fired emergency generators required by 40 CFR §60.4211 and §60.4214(b).
6.5	**Reporting Requirements:** A. **Control of Visible Emissions** **Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]**

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	See Reporting in Section 6.5.C. **B. <u>Control of Sulfur Oxides from Fuel Burning Equipment</u>. – [COMAR 26.11.09.07A(1)(c)]** See Reporting in Section 6.5.C. **C. <u>Operational Limits</u>** *<u>Reporting</u>* The Permittee shall provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information: (a) The name of the fuel oil supplier; (b) The sulfur content of the fuel oil; (c) The method used to determine the sulfur content of the fuel oil. ASTM D129-00, D2622-98, D4294-02, D1266-98, D5453-00, or D1552-01 may be used; and (d) A statement that the sampling was performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" and that no additions have been made to the supplier's tank since sampling. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-53]**

Table A – Emissions Standards for CTs

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
PM	0.005 lb/MMBtu @ 15% O_2 (filterable only) at all times without duct firing **AND** 0.004 lb/MMBtu @ 15% O_2 (filterable only) at all times with duct firing	BACT	3-hr block average	Conduct performance tests using EPA Reference Method 5 or equivalent approved by the Department	The Permittee shall calculate monthly emissions from the CTs/HRSGs based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack testing to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
$PM_{10}/PM_{2.5}$	0.008 lb/MMBtu @ 15% O_2 (filterable and condensable) at all times without duct firing AND 0.006 lb/MMBtu @ 15% O_2 (filterable and condensable) at all times with duct firing	BACT	Average of three (3) test runs	Conduct performance tests using Test Methods 201A (filterable) and Method 202 (condensable) or equivalent approved by the Department	The Permittee shall calculate monthly emissions from the CTs/HRSGs based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack testing to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
CO	2.0 ppmvd @ 15% O2 with and without duct firing, except during periods of startup and shutdown	BACT	3-hr block average	Conduct performance test using EPA Method 10, or equivalent method approved by the Department	Emissions shall be continuously monitored via CO CEMS. [COMAR 26.11.01.11] The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emission measured using the CEMS to demonstrate compliance with the project wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
CO During Startup and Shutdown	530 lb/event (for rapid response startups), 2,441 lb/event (for conventional startups) and 165 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	BACT	N/A	None required.	Emissions shall be continuously monitored via CO CEMS [COMAR 26.11.01.11]. The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emissions measured using the CEMS to demonstrate compliance with the project wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
GHG (as CO_2e)	7,109 Btu/kWh (gross, HHV) at ISO conditions with CTs operating at full load and no duct firing	BACT	N/A	Initial compliance with the heat rate limitation has been demonstrated using ASME PTC-46 test method.	Continuous compliance with this emission limit will be demonstrated by complying with the 878 lb/MWh (gross) emission limit which is valid during all periods of operation including various ambient temperatures, loads, with and without duct firing and during periods of startup and shutdown.)
GHG (as CO_2e)	2,667,018 tons per year at all times including periods of startup and shutdown, but excluding black start events. (Note: The 12-month rolling GHG limit is a facility-wide cap that must include all emissions sources at CPV Maryland St. Charles Energy Center.)	BACT	12-month rolling average	Initial compliance shall be demonstrated by installing a certified CO_2 CEMS in accordance with the performance specifications of 40 CFR Part 60, Appendix B. The CEMS shall meet the quality assurance requirements of 40 CFR Part 60, Appendix F. If CO_2 emissions are calculated using Equation G-4 of 40	Emissions shall be continuously monitored via CO_2 CEMS or by using Equation G-4 of 40 CFR Part 75, Appendix G. [COMAR 26.11.01.11] Rolling average emissions shall be calculated based on CO_2 CEMS or Equation G-4 data, and summed with N_2O and CH_4 emissions calculated using methodology in 40 CFR Part 98, Subpart C with associated GWP factors to demonstrate compliance with the project-wide emissions

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
				CFR Part 75, Appendix G in lieu of installing a CO_2 CEMS, initial compliance with CO_2 limits shall be demonstrated by initial certification required per 40 CFR §75.20(g). Fuel flow monitors shall meet the ongoing quality assurance requirements of 40 CFR Part 75, Appendix D.	limits in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
GHG (as CO_2e)	878 lb/MWh (gross)	BACT	12-month rolling	Install a certified CO_2 CEMS in accordance with 40 CFR §60 Appendix B. In lieu of installing a CO_2 CEMS, CO_2 shall be calculated using Equation G-4 of 40 CFR §75, Appendix G	Monitor CO_2 emissions from each CTs/HRSGs using a certified CO_2 CEMS or calculate CO_2 emissions using 40 CFR §75, Appendix G. The total generation (MW) shall be monitored to calculate the emission rate of CO_2 (lb/MWh) per CT, determined each month by summing the

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					CO_2 emissions for all hours in which a CT /HRSG is operating during the previous 12 months and dividing that value by the sum of the electrical energy output over that same period. (Note: Compliance with this GHG BACT emission limit, during all periods of operation including startup and shutdown, is used as a surrogate for demonstrating compliance with the 7,109 Btu/kWh (gross) emission limit at one specific operating case, i.e ISO conditions, 100% load and no duct firing.)
GHG (as CO_2e)	1,000 lb CO_2/MWh (gross)	NSPS Subpart TTTT [40 CFR §60.5520]	12-month rolling average	Initial compliance shall be demonstrated by installing and certifying a certified CO_2 CEMS to record hourly average CO_2 concentrations as specified in 40 CFR §60.5535. The CEMS	Emissions shall be continuously monitored via CO_2 CEMS or by using Equation G-4 of 40 CFR §75, Appendix G.

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
				shall meet the quality assurance requirements of 40 CPR §75 Appendices A and B. Alternatively, initial compliance shall be demonstrated by measuring hourly fuel flow rates and using this measurement and Equation G-4 in 40 CFR §75 to calculate hourly CO_2 mass emissions.	
NOx	2.0 ppmvd @ 15% O_2 **AND** 19.7 lb/hr with and without duct firing, except during periods of startup and shutdown, and for the designated black start combustion turbine during a black start event.	BACT / LAER	3-hr block average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [COMAR 26.11.01.11]	Emissions shall be continuously monitored via NOx CEMS. [COMAR 26.11.01.11] The Permittee shall calculate monthly emissions from the CTs/HRSGS, based on emissions measured using the CEMS to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
NOx	15 ppmvd at 15% O_2 **OR** 54 ng/J (0.43 lb/MWh) of useful output at all times	NSPS Subpart KKKK [40 CFR §60.4320]	30-day rolling average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [40 CFR §60.4400]	Emissions shall be continuously monitored via NOx CEMS. [40 CFR §60.4340(a) or (b)]
NOx	42 ppm dry volume at 15% O_2, except during periods of startup and shutdown, and for the designated black start combustion turbine during a black start event.	COMAR 26.11.09.08G(2)	1-hr block average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [COMAR 26.11.01.11]	Emissions shall be continuously monitored via NOx CEMS. [COMAR 26.11.01.11]
NOx During Startup and Shutdown	123 lb/event (for rapid response startups), 323 lb/event (for conventional startups), and 11 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	BACT and LAER	N/A	None required.	Emissions shall be continuously monitored via NOx CEMS. The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emissions measured using the CEMS to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					Case 9437, Appendix A, Condition A-33).
VOC	1.0 ppmvd @ 15% O_2 **AND** 2.9 lb/hr without duct firing, excluding periods of startup and shutdown, and for the designated black start combustion turbine during a black start event. 2.0 ppmvd @ 15% O_2 **AND** 6.9 lb/hr with duct firing excluding periods of startup and shutdown, and for the designated black start combustion turbine during a black start event.	LAER	3-hr block average	Conduct performance test using EPA Method 18, 25A or equivalent method approved by the Department	CO CEMS data shall be used as a surrogate for VOC emissions. A correlation shall be developed between CO and VOC emissions based on an initial stack test. The approach to establish the correlation shall be included in the parametric monitoring plan provided to the Department per Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33). The emission correlation shall be verified annually by stack test or a new correlation established. Monthly emissions during normal operation shall be calculated using the VOC emission rates and monthly fuel throughput rates to the CTs/HRSGs.

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
VOC During Startup and Shutdown	30 lb/event (for rapid response startups); 343 lb/event (for conventional startups); and 40 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	LAER	N/A	None required.	The Permittee shall track the type, number, and duration of each startup and shutdown event. CO CEMS data shall be used as a surrogate for VOC emissions. A correlation factor developed by taking the ratio of CO and VOC SUSD emissions provided by GE specifications shall be used to determine VOC emissions during SUSD events. Specifically, CO emissions measured via CEMS during rapid response startups, conventional startups, and all shutdowns shall be divided by 17.7, 7.12, and 3.93, respectively, to determine VOC emissions. The monthly startup and shutdown VOC emissions shall be added to the VOC emissions from non-startup and shutdown events to demonstrate compliance with the project-wide emissions

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
SO_2	110 ng/J (0.90 lb/MWh) gross output SO2 emissions **OR** No fuel burned with total potential sulfur emissions in excess of 26 ng/J (0.060 lb/MMBtu) heat input	40 CFR Part 60, Subpart KKKK [40 CFR §60.4330]	At all times.	Conduct performance tests per 40 CFR §60.4415	Conduct performance tests. [40 CFR §60.4415] **OR** Fuel quality characteristics or fuel sampling data. [40 CFR §61.4365]
Visible Emissions	20% opacity	COMAR 26.11.09.05A(1)	At all times, except as provided in COMAR 26.11.09.05 A(3).	Initial EPA Reference Method 9 for 1 hour within 180 days of initial startup. [COMAR 26.11.09.05A(1) and (5) and 40 CFR Part 60, Appendix A]	Visible observations in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, then inspect combustion control system, perform necessary adjustments and / or repairs within 48 hours, and document in writing the results of inspection,

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					adjustments and or repairs. After 48 hours, if the required adjustments and / or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. [COMAR 26.11.02.02H]
SAM	2.2 lb/hr without duct firing at all times and 2.5 lb/hr with duct firing at all times	BACT	3-hour block average	Conduct a performance test using EPA Method 8 or equivalent method approved by the Department.	The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack test to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
Ammonia Slip	5 ppmvd @ 15% O_2	COMAR 26.11.02.02H	24-hr block average	Initial stack testing using EPA Method CTM-027 or	Performance stack tests at least once every five (5) years using EPA Method

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
				equivalent method approved by the Department.	CTM-027 or equivalent method approved by the Department.

[Reference: CPCN CPV Maryland Case 9437, Appendix A, Table A]

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) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(2) ✓ 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;

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

(a) No. 1 Storage of lubricating oils;

(b) No. 1 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) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

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

(6) ✓ Laboratory fume hoods and vents;

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

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

1. Applicable Regulations:

   (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Operating Conditions:
   (Note: Generally these conditions impose standards or limitations that are necessary to assure compliance with Maryland's Air Toxics Regulations.)

3. Testing and Monitoring:

4. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (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 requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Maryland Department of the Environment
Air and Radiation Administration

CO_2 BUDGET TRADING PROGRAM PERMIT

Plant Name: St. Charles Energy Center	
Affected Trading Units: CT 1 (EU1) & CT 2 (EU2)	
Owner: CPV Maryland, LLC	**ORIS Code** 56846
Effective Date From: MAY 01 2024 To: JUN 30 2028	

Contents:

1. Statement of Basis
2. Table of Affected Units
3. Standard Requirements.
4. The permit application forms submitted for this source.

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article §2-401, Annotated Code of Maryland, the Maryland Department of the Environment, Air and Radiation Administration issues this permit pursuant to COMAR 26.09.01 thru COMAR 26.09.04.

Initial Permit Approval

MAY 01 2024

Christopher R. Hoagland, Director
Air and Radiation Administration

Date of Issue

2. Affected Units

Unit ID #	ARA ID #	Unit Description
CT 1	5-0012	General Electric, Model 7FA.05 natural gas-fired combustion turbine rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst; and equipped with a HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW.
CT 2	5-0013	General Electric, Model 7FA.05 natural gas-fired combustion turbine rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst; and equipped with a HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW.

3. Standard Requirements:

A. Selection and Responsibilities of CO_2 Budget Source Compliance Account Authorized Account Representatives.

(1) Each CO_2 budget source shall have a CO_2 authorized account representative and an alternate CO_2 authorized account representative. (COMAR 26.09.01.04B)

(2) Upon receipt of a complete account certificate of representation:

(a) The CO_2 authorized account representative and alternate CO_2 authorized account representative shall represent and, by representations, actions, inactions, or submissions, legally bind each owner or operator of the CO_2 budget source represented and each CO_2 budget unit at the source in all matters pertaining to this subtitle, notwithstanding any agreement between the CO_2 authorized account representative, alternate CO_2 authorized account representative, and the owners or operators; and

(b) The owners or operators shall be bound by any decision or order issued to the CO_2 authorized account representative or alternate CO_2 authorized account representative by the Department or a court regarding the CO_2 budget source or unit.
(COMAR 26.09.01.04E (1) & (2))

(3) A CO_2 budget permit may not be issued or a compliance account established for a CO_2 budget source until the Department has received a complete account certificate of representation for a CO_2 authorized account representative and alternate CO_2 authorized account representative of the source and the CO_2 budget units at the source. (COMAR 26.09.01.04F)

(4) Each submission shall be signed and certified by the CO_2 authorized account representative or

alternate CO_2 authorized account representative on behalf of each CO_2 budget source and shall include the following statement by the CO_2 authorized account representative or alternate CO_2 authorized account representative: "I am authorized to make the submission on behalf of the owners or operators of the CO_2 budget sources or CO_2 budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in the document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment." (COMAR 26.09.01.04G)

B. Distribution Of CO_2 Allowances And Compliance

(1) Unless otherwise specified in this chapter, a CO_2 budget source shall demonstrate compliance with its CO_2 budget emissions limitation by holding one CO_2 allowance in its compliance account for every ton of CO_2 that it emits in a control period, by the allowance transfer deadline for that control period. (COMAR 26.09.02.03I(1))

(2) As of the CO_2 allowance transfer deadline for an interim control period, the owners and operators of each CO_2 budget source and each CO_2 budget unit at the source shall hold, in the source's compliance account for deduction under §I of this regulation, CO_2 allowances for no less than 50 percent of the total CO_2 emissions for the interim control period from all CO_2 budget units at the source. (COMAR 26.09.02.03I(2))

(3) Allowances Available for Compliance Deduction. The following CO_2 allowances may be deducted from a compliance account for purposes of complying with a budget source's CO_2 budget emissions limitation for a control period or an interim control period:

(a) CO_2 allowances that are not CO_2 offset allowances and are identified as allowances falling within a prior control period, the same control period, or the same interim control period for which the allowances are deducted;

(b) CO_2 allowances that are held or transferred into the CO_2 budget source's compliance account as of the CO_2 allowance transfer deadline for that control period or for the interim control period contained within that control period;

(c) CO_2 offset allowances that are available to be deducted for compliance during a control period or an interim control period where the quantity of allowances is limited to:

(i) 3.3 percent of the CO_2 budget source's CO_2 emissions for that control period; or

(ii) 3.3 percent of the CO_2 budget source's CO_2 emissions for an interim control period multiplied by 0.50.
(COMAR 26.09.02.03I(3)(a)-(c))

(4) Deduction of CO_2 allowances:

(a) The Department shall deduct allowances from the CO_2 budget source's compliance account until:

(i) The number of CO_2 allowances deducted equals 50 percent of the total CO_2 emissions for an interim control period; or

(ii) The number of CO_2 allowances deducted equals the total CO_2 emissions for the control period.

(b) No deduction shall be made for CO_2 emissions attributable to the burning of eligible biomass. (COMAR 26.09.02.03I(4)(a) & (b))

(5) The identification of available CO_2 allowances for compliance deduction by serial number or by default is as follows:

(a) The CO_2 authorized account representative for a source's compliance account may request that specific CO_2 allowances, identified by serial number for a control period or interim control period, be deducted; and

(b) In the absence of an identification or in the case of a partial identification of available CO_2 allowances by serial number, the Department shall deduct CO_2 allowances for a control period or interim control period in the following descending order:

(i) For the first control period, all CO_2 allowances purchased by direct sale from the Department during years 2009, 2010, and 2011 resulting from the occurrence of the $7 auction clearing price;

(ii) All CO_2 allowances for a control period allocated to a CO_2 budget unit from the Long Term Contract Set-aside Account or the Clean Generation Set-aside Account;

(iii) Subject to the relevant compliance deduction limitations identified in §I(3)(c) of this regulation, any CO_2 offset allowances transferred and recorded in the compliance account, in chronological order; and

(iv) Any CO_2 allowances, other than those identified in §I(5)(b)(i)—(iii) of this regulation, that are available for deduction in the order they were recorded.
(COMAR 26.09.02.03I(5)(a)-(b))

(6) Deductions for Excess Emissions.

(a) If a CO_2 budget source has excess emissions, the Department shall deduct, from the CO_2 budget source's compliance account, CO_2 allowances from allocation years that occur after the control period or interim control period in which the excess emissions or excess interim emissions occurred, equal to three times the excess emissions.

(b) If a source's compliance account holds insufficient CO_2 allowances to cover the excess emissions, the source shall immediately transfer sufficient allowances into its compliance account.

(c) CO_2 offset allowances may not be deducted to account for the source's excess emissions.

(d) No CO_2 allowance deduction shall relieve the owners or operators of the CO_2 budget units at the source of liability for any fine, penalty, assessment or obligation to comply with any other remedy, for the same violation, as ordered under applicable State law.
(COMAR 26.09.02.03I(6)(a)-(d))

(7) Guidelines.

(a) The following guidelines apply in assessing fines, penalties, or other obligations:

(i) For purposes of determining the number of days of violation, if a CO_2 budget unit has excess emissions for a control period or interim control period, each day in the control period or interim control period, as applicable, constitutes a separate day of violation unless the owners or operators of the unit can demonstrate to the satisfaction of the Department that a lesser number of days should be considered; and

(ii) The Department shall consider the amount of excess emissions in determining the severity of the violation.

(b) Each ton of excess interim emissions is a separate violation.
(COMAR 26.09.02.03I(7)(a)-(b))

(8) If the CO_2 budget source's compliance account no longer exists, the CO_2 allowances shall be deposited in a general account selected by the owner or operator of the CO_2 budget source.
(COMAR 26.09.02.03I(8))

(9) Adjustments and Errors.

(a) The Department may review and conduct independent audits concerning any submission under this subtitle and make appropriate adjustments to the information, if necessary.

(b) The Department may correct any error in any account and, within 10 business days of making any correction, notify the CO_2 authorized account representative for the account.
(COMAR 26.09.02.03I(9)(a)-(b))

C. Applicability and Administration

(1) The requirements of this permit apply to the owner or operator of a CO_2 budget unit. When this permit establishes a requirement such as the submittal of a permit application, a report, a request for allowances or transfer of allowances, or general information, these actions shall be achieved through the authorized account representative on behalf of the owner or operator of the affected CO_2 budget source or unit.
(COMAR 26.09.02.02A)

(2) The requirements of this subtitle are effective on January 1, 2009 or, for new CO_2 budget units, on the day on which the unit commences operation.
(COMAR 26.09.02.02C).

(3) The provisions of this permit do not exempt or otherwise relieve the owners or operators of a CO_2 budget source from achieving compliance with any other provision of applicable State and federal laws and regulations.
(COMAR 26.09.02.02D).

(4) Unless otherwise stated under this subtitle, any time period scheduled to begin:

(a) On the occurrence of an act or event, begins on the day the act or event occurs; and

(b) Before the occurrence of an act or event, is computed so that the period ends the day before the act or event occurs.
(COMAR 26.09.02.02E)

(5) Unless otherwise stated, if the final day of any time period for performing an act required by this subtitle falls on a weekend or on a State or federal holiday, the time period is extended until or to the next business day.
(COMAR 26.09.02.02F)

D. Permit Requirements

(1) The account representative or designate alternate account representative) of each affected unit at a source, (every fossil fuel fired unit with a nameplate capacity of 25 MW or greater) for that source shall comply with the following:

(a) The CO_2 authorized account representative for the source shall submit an initial CO_2 budget permit application by October 1, 2008, or 12 months before the date on which the CO_2 budget source, or a new unit at the source, commences operation.
(COMAR 26.09.02.04A(2));

(b) The CO_2 budget permit application shall include the following in a format prescribed by the Department: 1) the identification of the CO_2 budget source; 2) plant name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration of the U. S. Department of Energy, if applicable; 3) each CO_2 budget unit at the source; and 4) other information required by the Department.
(COMAR 26.09.02.04A(3))

(c) A CO_2 authorized account representative for the source shall submit a complete application for the renewal of an existing CO_2 budget permit on forms provided by the Department not later than 90 days before the expiration of the current CO_2 budget permit and in accordance with this regulation.
(COMAR 26.09.02.04E)

(2) Each CO_2 budget source shall apply for and have in effect a CO_2 budget permit that contains all applicable requirements.
(COMAR 26.09.02.04A(1)).

(3) The CO_2 budget permit issued by the Department shall be separate but attached to the budget source's Part 70 permit.

(COMAR 26.09.02.04B)

(4) A CO_2 budget permit expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit.
(COMAR 26.09.02.04D)

E. Monitoring, Initial Certification and Recertification Requirements

(1) For each control period in which a CO_2 budget source is subject to the CO_2 budget emissions limitation, the CO_2 authorized account representative of the source shall submit a compliance certification report by the March 1 following the relevant control period. A compliance certification report is not required as part of the compliance obligation during an interim control period.
(COMAR 26.09.02.05A(1))

(2) The CO_2 authorized account representative shall include in the compliance certification report the following:

(a) Identification of the source and each CO_2 budget unit at the source;

(b) At the CO_2 authorized account representative's option, the serial numbers of the CO_2 allowances that are to be deducted from the source's compliance account for the control period, including the serial numbers of any CO_2 offset allowances that are to be deducted subject to applicable limitations; and

(c) The compliance certification required by §A(3) of COMAR 26.09.02.05.
(COMAR 26.09.02.05A(2))

(3) In the compliance certification report, the CO_2 authorized account representative shall certify whether the source and each CO_2 budget unit at the source for which the compliance certification is submitted was operated during the control period in compliance with the requirements of this subtitle, including:

(a) Whether each CO_2 budget unit at the source was operated in compliance with the CO_2 budget emissions limitation;

(b) Whether the monitoring plan applicable to each unit at the source: (i) has been maintained to reflect the actual operation and monitoring of the unit; and (ii) contains all information necessary to track CO_2 emissions from the unit;

(c) Whether all CO_2 emissions from each unit at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including: (i) whether all conditional data was reported in the quarterly reports; or (ii) if conditional data were reported, whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(d) Whether the basis for certification or for using an excepted monitoring method or approved alternative monitoring method has changed; and

(e) If a change is required to be reported, include: (i) the nature and reasons for the change; (ii) when the change occurred; and (iii) how the unit's compliance status was determined after the change, including the method used to determine emissions when a change mandated the need for monitor recertification.
(COMAR 26.09.02.05A (3) (a)-(e))

(4) The Department, at its discretion, may review and conduct independent audits of any compliance certification or other submission required by this permit.
(COMAR 26.09.02.05B(1))

(5) The Department may deduct CO_2 allowances from, or transfer CO_2 allowances to, a compliance account to correct errors in the account or to accurately reflect CO_2 emissions, based on the information in the compliance certification or other submissions.
(COMAR 26.09.02.05B(2))

(6) The owner or operator of a CO_2 budget unit shall:

(a) Install monitoring systems to monitor CO_2 concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate;

(b) Install all monitoring systems in accordance with 40 CFR Part 75, except for equation G-1 in Appendix G (see below); and

$$W_{CO_2} = \frac{\left(MW_C + MW_{O_2}\right) \times W_C}{2,000\, MW_C} \quad (Eq.\ G\text{-}1)$$

Where:
W_{CO_2}=CO_2 emitted from combustion, tons/day.
MW_C=Molecular weight of carbon (12.0).
MW_{O2}=Molecular weight of oxygen (32.0)
W_C= Carbon burned, lb/day, determined using fuel sampling and analysis and fuel feed rates.

(c) Record, report, and verify the data from the monitoring systems.
(COMAR 26.09.02.10A(1)(a)-(c))

(7) Install and certify the monitoring system on or before the following dates:

(a) For a CO_2 budget unit that commences commercial operation before July 1, 2008, the owner or operator shall comply on or before January 1, 2009; and

(b) For a CO_2 budget unit that commences commercial operation or constructs a new stack or flue on or after July 1, 2008, the owner or operator shall comply by January 1, 2009, or 90 operating days after the date on which the unit commences commercial operation.
(COMAR 26.09.02.10A(1)(d))

(8) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date shall, in accordance with the provisions in 40 CFR §75.31(b)(2) or (c)(3), or §2.4 of Appendix D, determine, record, and report maximum potential or, as appropriate, minimum potential for the following:

(a) CO_2 concentration;

(b) CO_2 emissions rate;

(c) Stack gas moisture content;

(d) Fuel flow rate; and

(e) Any other parameter required to determine CO_2 mass emissions.
(COMAR 26.09.02.10A(2)(a)-(e))

(9) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date for any monitoring system shall determine, record, and report substitute data using the applicable missing data procedures in 40 CFR Part 75 Subpart D, or Appendix D, instead of the maximum potential values or, as appropriate, minimum potential values for a parameter, if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation.
(COMAR 26.09.02.10A(3))

(10) An owner or operator of a CO_2 budget unit or a non-CO_2 budget unit monitored under 40 CFR §75.72 (b) (2) (ii) may not:

(a) Use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval from the Department;

(b) Operate the unit so as to discharge, or allow to be discharged, CO_2 emissions to the atmosphere without accounting for all emissions in accordance with the applicable provisions of this chapter and 40 CFR Part 75;

(c) Disrupt the operation of the CEMS, any portion of the CEMS, or any other approved emissions monitoring method, and thereby avoid monitoring and recording CO_2 mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed; or

(d) Permanently discontinue use of the approved CEMS unless the owner or operator monitors emissions with a system approved in accordance with this chapter and 40 CFR Part 75.
(COMAR 26.09.02.10A(4)(a)-(d))

(11) For purposes of this subtitle only, the owner or operator of a CO_2 budget unit is exempt from demonstrating compliance with the initial certification requirements of 40 CFR §75.20 for a monitoring system if the following conditions are met:

(a) The monitoring system has been previously certified in accordance with 40 CFR §75.20; and

(b) The applicable quality assurance and quality-control requirements of 40 CFR §75.21 and Appendix B and Appendix D of 40 CFR Part 75 are fully met for the certified monitoring

system.
(COMAR 26.09.02.10B(1)(a)-(b))

(12) The recertification provisions of this regulation apply to a monitoring system exempt from the initial certification requirements of this regulation.
(COMAR 26.09.02.10B(2))

(13) If the Department has previously approved a petition under 40 CFR §75.72(b)(2)(ii) or 40 CFR §75.16(b)(2)(ii)(B) pursuant to 40 CFR §75.13 for apportioning the CO_2 emissions rate measured in a common stack or a petition under 40 CFR §75.66 for an alternative requirement in 40 CFR Part 75, the CO_2 authorized account representative shall resubmit the petition to the Department to determine whether the approval applies under this chapter.
(COMAR 26.09.02.10B(3))

(14) The owner or operator of a CO_2 budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D.
(COMAR 26.09.02.10B(4))

(15) The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR §75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E, shall comply with this regulation.
(COMAR 26.09.02.10 B(5))

(16) When the owner or operator replaces, modifies, or changes a CEMS that the Department determines significantly affects the ability of the system to accurately measure or record CO_2 mass emissions or to meet the quality assurance and quality control requirements of 40 CFR §75.21 or Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR §75.20(b).
(COMAR 26.09.02.10C(1))

(17) When the owner or operator replaces, modifies, or changes the flue gas handling system or the unit's operation in a manner that the Department determines has significantly changed the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR §75.20(b).
(COMAR 26.09.02.10C(2))

(18) Approval Process for Initial Certifications and Recertification. The procedures in 40 CFR §75.20(b)(5) and (g)(7) apply for recertification. The CO_2 authorized account representative shall submit to the Department:

(a) A written notice of the dates of certification; and

(b) A recertification application for each monitoring system, including the information specified in 40 CFR §75.63.
(COMAR 26.09.02.10C(3)(a)-(b))

(19) Provisional certification data for a monitor shall be:

(a) Determined in accordance with 40 CFR §75.20(a)(3);

(b) A provisionally certified monitor may be used for a period not to exceed 120 days after receipt of the complete certification application for the monitoring system or component; and

(c) Data measured and recorded by the provisionally certified monitoring system or component is considered valid quality assured data, retroactive to the date and time of provisional certification, if the Department does not issue a notice of disapproval within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10C(4)(a)-(c))

(20) The Department shall issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10D(1))

(21) If the Department does not issue the notice within the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application shall be deemed certified for use.
(COMAR 26.09.02.10D(2))

(22) If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department shall issue a written notice of approval of the certification application within 120 days of receipt.
(COMAR 26.09.02.10D(3))

(23) If the certification application is not complete, the Department shall issue a written notice of incompleteness that sets a reasonable date by which the CO_2 authorized account representative is to submit the additional information required to complete the certification application.
(COMAR 26.09.02.10D(4))

(24) If the CO_2 authorized account representative does not comply with the notice of incompleteness by the specified date, the Department may issue a notice of disapproval.
(COMAR 26.09.02.10D(5))

(25) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of unit operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR §75.20(a)(5)(i) or 75.20(g)(7):

(a) For units using or intending to monitor for CO_2 mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR §75.19, the maximum potential hourly heat input of the unit; or

(b) For units intending to monitor for CO_2 mass emissions using a CO_2 pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO_2 and the maximum

potential flow rate of the unit under 40 CFR Part 75, Appendix A, §2.1.
(COMAR 26.09.02.10 D(6)(a)-(b))

(26) The CO_2 authorized account representative shall submit a notification of certification retest dates and a new certification application. The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, not later than 30 operating days after the date of issuance of the notice of disapproval.
(COMAR 26.09.02.10D(7))

(27) The owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR §75.19 shall meet the applicable certification and recertification requirements of 40 CFR §§75.19(a) (2) and 75.20(h).
(COMAR 26.09.02.10E(1))

(28) If the owner or operator of this unit elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR §75.20(g).
(COMAR 26.09.02.10E(2))

(29) Certification and Recertification Procedures for Alternative Monitoring Systems. For each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department, 40 CFR Part 75, Subpart E, shall be used to comply with the applicable notification and application procedures of 40 CFR §75.20(f).
(COMAR 26.09.02.10F)

(30) When any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D, Appendix D.
(COMAR 26.09.02.10G(1))

(31) Audit Decertification.

(a) Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department shall issue a notice of disapproval of the certification status of the monitoring system.

(b) By issuing the notice of disapproval, the certification status of the monitoring system is prospectively revoked.
(COMAR 26.09.02.10G(2))

(32) The data measured and recorded by the monitoring system may not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status.
(COMAR 26.09.02.10G(3))

F. Record Keeping and Reporting Requirements

(1) The CO_2 authorized account representative shall comply with all record-keeping and reporting requirements in COMAR 26.09.02.10 and the applicable record-keeping and reporting requirements under 40 CFR §75.73.
(COMAR 26.09.02.11A)

(2) The CO_2 authorized account representative shall submit quarterly reports as described below in this section.
(COMAR 26.09.02.11B(1))

(3) The report shall contain the CO_2 mass emissions data for the CO_2 budget unit in an electronic format, unless otherwise required by the Department, for each calendar quarter beginning with:

(a) The calendar quarter covering January 1, 2009 — March 31, 2009, for a unit that commences commercial operation before July 1, 2008; or

(b) For a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the: (i) date of provisional certification; or (ii) applicable deadline for initial certification.
(COMAR 26.09.02.11B(2)(a)-(b))

(c) If the quarter is the third or fourth quarter of 2008, reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009.
(COMAR 26.09.02.11B(3))

(4) The CO_2 authorized account representative shall submit each quarterly report within 30 days following the end of the calendar quarter covered by the report and in accordance with 40 CFR Part 75, Subpart H, §75.64 and 40 CFR Part 75, Subpart G except for the opacity, NO_x and SO_2 provisions.
(COMAR 26.09.02.11B(4))

(5) The CO_2 authorized account representative shall submit a compliance certification in support of each quarterly report. The certification shall state that:

(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this chapter and 40 CFR Part 75, including the quality assurance procedures and specifications;

(b) For a unit with add-on CO_2 emissions controls and for all hours where data are substituted in accordance with 40 CFR §75.34(a)(1) , the add-on emissions controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR Part 75, Appendix B, and the substitute values do not systematically underestimate CO_2 emissions; and

(c) The CO_2 concentration values substituted for missing data under 40 CFR Part 75, Subpart D, do not systematically underestimate CO_2 emissions.
(COMAR 26.09.02.11B(5)(a)-(c))

(6) The CO_2 authorized account representative of a CO_2 budget unit may submit a petition to the

Department under 40 CFR §75.66 requesting approval to apply an alternative to any requirement of this chapter.
(COMAR 26.09.02.11C)

(7) The CO_2 authorized account representative or alternate CO_2 authorized account representative of a CO_2 budget unit that burns eligible biomass as a compliance mechanism under this chapter shall report the following information for each calendar quarter:

(a) For each shipment of solid eligible biomass fuel fired at the CO_2 budget unit:

(i) Total eligible biomass fuel input, on an as-fired basis, in pounds; and

(ii) The moisture content, on an as-fired basis, as a fraction of weight;

(b) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit:

(i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot; and

(ii) The moisture content of the biogas, as a fraction by total weight;

(c) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit:

(i) The dry basis carbon content of the fuel type, as a fraction by dry weight;

(ii) The dry basis higher heating value, in MMBtu per dry pound;

(iii) The total dry basis eligible biomass fuel input, in pounds;

(iv) The total eligible biomass fuel heat input; and

(v) Chemical analysis, including heat value and carbon content;

(d) The total amount of CO_2 emitted from the CO_2 budget unit due to firing eligible biomass fuel, in tons, calculated as in §D(2)(b) of this regulation;

(e) The total heat input to the CO_2 budget unit due to firing eligible biomass fuel, in MMBtu, calculated below; and

(f) Description and documentation of monitoring technology and fuel sampling methodology employed, including sampling frequency.
(COMAR 26.09.02.11 D(1)(a)-(f))

(8) An owner or operator of a CO_2 budget unit shall calculate and submit on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO_2 budget unit during the reporting quarter:

(a) For solid eligible biomass fuel, determined as follows:

$$F_j = \sum_{i=1}^{m} (1 - M_i) x F_i$$

where:

(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(ii) F_i = Eligible biomass as fired fuel input (pounds) for fired shipment i;
(iii) M_i = Moisture content (fraction) for fired shipment i:
(iv) i = fired fuel shipment;
(v) j = fuel type; and
(vi) m = number of shipments.

(b) For gaseous eligible biomass fuel, as determined as follows:

$$F_j = D_j x V_j x (1 - M_j)$$

where:

(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(ii) D_j = Density of biogas (pounds/scf) for fuel type j;
(iii) Vj = Total volume (scf) for fuel type j;
(iv) Mj = Moisture content (fraction) for fuel type j; and
(v) j = fuel type

(COMAR 26.09.02.11D(2)(a)-(b))

(9) The amount of CO_2 emissions that is produced from the firing of eligible biomass for any full calendar quarter, during which either no fuel other than eligible biomass is combusted or during which fuels other than eligible biomass are combusted, is determined as follows:

$$CO_2 tons = \sum_{j=1}^{n} F_j x C_j x O_j \left(\frac{44 \left(\frac{g}{molCO_2} \right)}{12 \left(\frac{g}{molC} \right)} \right) (0.0005)$$

where:

(a) CO_2 tons = CO_2 emissions due to firing of eligible biomass for the reporting quarter;
(b) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j, as calculated in §D(2)(a) of this regulation;
(c) C_j = Carbon fraction (dry basis) for fuel type j;
(d) Oj = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash or for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

(e) $$\frac{44\left(\frac{g}{molCO_2}\right)}{12\left(\frac{g}{molC}\right)}$$

= The number of tons of carbon dioxide that are created when one ton of carbon is combusted;

(f) 0.0005 = The number of short tons which is equal to one pound;

(g) j = Fuel type; and

(h) n = number of distinct fuel types.

(COMAR 26.09.02.11D(3))

(10) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(a) For each distinct fuel type:

$$H_j = F_j x HHV_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;

(ii) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;

(iii) HHV_j = Higher heating value (MMBtu/pound), dry basis, for fuel type j, as determined through chemical analysis;

(iv) j = Fuel type.

(b) For all fuel types:

$$HeatInputMMBtu = \sum_{j=1}^{n} H_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;

(ii) j = fuel type; and

(iii) n = number of distinct fuel types.

Fuel sampling methods and fuel sampling technology shall be consistent with the New York State Renewable Portfolio Standard Biomass Guidebook, September 2011.
(COMAR 26.09.02.11D(4)& D(5))

(11) A CO_2 budget unit shall submit to the Department the megawatt-hour value and a statement certifying that the megawatt-hour of electrical output reported reflects the total actual electrical output for all CO_2 budget units at the facility used by the independent system operator (ISO) to determine settlement resources of energy market participants.
(COMAR 26.09.02.11E(1))

(12) A CO_2 budget unit shall report gross hourly megawatts to the Department in the same electronic data report (EDR) for gross output as submitted to the EPA Administrator, for the operating time in the hour, added for all hours in a year.

(COMAR 26.09.02.11E(2))

(13) A CO_2 budget unit shall submit the net electrical output to the Department in accordance with this regulation. A CO_2 budget source whose electrical output is not used in the independent system operator (ISO) energy market settlement determinations shall propose a method for quantification of net electrical output.
(COMAR 26.09.02.11E(3))

(14) Report of net Steam Output.

(a) CO_2 budget sources selling steam shall use billing meters to determine net steam output or an alternative method to measure net steam output approved by the Department.

(b) If data for steam output is not available, the CO_2 budget source may report heat input, substituting useful steam output for steam output.
(COMAR 26.09.02.11E(4)(a)-(b))

(15) Each CO_2 budget source shall submit an output monitoring plan with a description and diagram that include the following:

(a) If the CO_2 budget unit monitors net electric output, the diagram shall contain all CO_2 budget units and all generators served by each CO_2 budget unit and the relationship between CO_2 budget units and generators;

(b) If a generator served by a CO_2 budget unit is also served by a nonaffected unit, the nonaffected unit and its relationship to each generator shall be indicated on the diagram;

(c) The diagram shall indicate where the net electric output is measured and include all electrical inputs and outputs to and from the plant;

(d) If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and show that all electricity measured at the point of sale is generated by the CO_2 budget units;

(e) If the CO_2 budget unit monitors net thermal output, the diagram shall indicate all steam or hot water coming into the net steam system, including steam from CO_2 budget units and nonaffected units, and all exit points of steam or hot water from the net steam system;

(f) Each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu per pound;

(g) The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads, and all boiler feedwater returns;

(h) The diagram shall represent all energy losses in the system as either usable or unusable losses;

(i) The diagram shall indicate all flow meters, temperature or pressure sensors, or other equipment used to calculate gross thermal output; and

(j) If a sales agreement is used to determine net thermal output, the diagram shall show the monitoring equipment used to determine the sales of steam.
(COMAR 26.09.02.11F(2)(a)-(j))

(16) The description of the output monitoring system shall include:

(a) A written description of the output system and the equations used to calculate output, and, for net thermal output systems, descriptions and justifications of each useful load;

(b) A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system; and

(c) Documentation supporting any output value to be used as a missing data value if there are periods of invalid output data.

(d) The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and approved as part of the required monitoring plan.
(COMAR 26.09.02.11F(3)(a)-(b))

(17) A certification statement shall be submitted by the CO_2 authorized account representative stating that either:

(a) The output monitoring system consists entirely of billing meters; or

(b) The output monitoring system meets one of the accuracy requirements for nonbilling meters.
(COMAR 26.09.02.11G(1)(a)-(b))

(18) The billing meter shall record the electric or thermal output. Any electric or thermal output values reported shall be the same as the values used in billing for the output.
(COMAR 26.09.02.11G(2))

(19) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.
(COMAR 26.09.02.11G(3))

(20) The system approach to accuracy shall include:

(a) A determination of how the system accuracy of 10 percent is achieved using the individual components in the system; and

(b) Data loggers and any wattmeters used to calculate the final net electric output data or any flowmeters for steam or condensate, temperature measurement devices, absolute pressure measurement devices, and differential pressure devices used for measuring thermal energy.
(COMAR 26.09.02.11G(4) (a)-(b))

(21) If, upon testing a piece of output measurement equipment, it is determined that the output readings

are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11G(5))

(22) Data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.
(COMAR 26.09.02.11G(6))

(23) Ongoing quality assurance and quality control activities shall be performed in order to maintain the output system.
(COMAR 26.09.02.11H(1))

(24) If billing meters are used to determine output, quality assurance and quality control activities are not required beyond what are already performed.
(COMAR 26.09.02.11H(2))

(25) Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.

(a) Pressure and temperature transmitters accompanying an orifice plate will require periodic retesting.

(b) For other types of equipment, the meter accuracy shall be recalibrated or verified at least once every 2 years, unless a consensus standard allows for less frequent calibrations or accuracy tests.

(c) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.

(d) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 H(3)(a)-(e))

(26) Out-of-Control Periods.

(a) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to the certification value, data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.

(b) All invalid data shall be replaced by either zero or an output value that is likely to be lower than a measured value and that is approved as part of the required monitoring plan.
(COMAR 26.09.02.11 H(4)(a)-(b))

(27) The CO_2 authorized account representative shall submit annual output reports, as follows:

(a) Data shall be sent both electronically and in hardcopy by March 1 for the immediately preceding calendar year; and
(COMAR 26.09.02.11I 1))

(28) The annual report shall include unit level megawatt hours, all useful steam output, and a certification statement from the CO_2 authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the CO_2 budget sources or CO_2 budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."
(COMAR 26.09.02.11I(2))

G. CO_2 Emission Offset Projects

(1) In order to qualify for the award of CO_2 offset allowances, the following offset projects shall satisfy all applicable requirements identified in COMAR 26.09.03 and initially commence on or after December 20, 2005:

(a) Landfill methane capture and destruction;

(b) Reduction in emissions of sulfur hexafluoride (SF_6);

(c) Sequestration of carbon due to afforestation;

(d) Reduction or avoidance of CO_2 emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and

(e) Avoided methane emissions from agricultural manure management operations.
(COMAR 26.09.03.02A(1)-(5))

4. Permit Application (See Attachment)

Maryland Department of the Environment
Air and Radiation Administration

PHASE II ACID RAIN PERMIT

Plant Name: St. Charles Energy Center	
Affected Units: CT 1 (EU1) & CT 2 (EU2)	
Owner: CPV Maryland, LLC	ORIS Code 56846
Effective Date: From: MAY 01 2024 To: JUN 30 2028	

Contents:

1. Statement of Basis

2. SO_2 and NO_x Permit Requirements for Each Affected Unit.

3. Comments, Notes, and Justifications Regarding Permit Decisions; Changes Made to Permit Application Forms During the Review Process; Any Additional Requirements or Conditions.

4. The permit application forms submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application

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1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article§2-401, Annotated Code of Maryland and Titles IV and V of the Clean Air Act, the Maryland Department of the Environment, Air and Radiation Administration issues this permit pursuant to COMAR 26.11.02 and COMAR 26.11.03.

2. SO_2 and NO_X Requirements for Each Affected Unit

Sulfur Dioxide Requirements

Units No. CT 1 (EU1) & CT 2 (EU2)

SO_X Requirements	
SO_X Allowances	St Charles Energy Center, LLC will hold allowances for CT 1 (EU1) & CT 2 (EU2) in accordance with 40 CFR 72.9(c)(1).

(1) The owners and operators of each source and each affected unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

Units No. CT 1 (EU1) & CT 2 (EU2)

NO_X Requirements	
NO_X Limit	None

3. Comments, notes, and justifications regarding decisions; and changes made to the permit application forms during the review process:

The allowances allocated by the United States Environmental Protection Agency (US EPA) to the unit are listed in Table 2 of 40 CFR Part 73. However, the number of allowances actually held by an affected source's account may differ from the number allocated by the US EPA.

Initial Permit Approval

Angela Bruce

Date of Issuance: MAY 01 2024

Christopher R. Hoagland, Director
Air and Radiation Administration

ST CHARLES ENERGY CENTER
5025 THOMAS EDISON DRIVE, WALDORF, MARYLAND 20602
PERMIT NO. 24-017-0235
PART 70 OPERATING PERMIT FACTSHEET

BACKGROUND

CPV Maryland, LLC (CPV), owns and operates the St. Charles Energy Center, which is a 750-megawatt (MW), state-of-the-art, natural gas-fired, combined-cycle combustion turbine electric generating station (SIC Code 4911). The facility is located approximately 4 miles south of Waldorf, Charles County, Maryland.

The St. Charles Energy Center's major air emissions sources consist of two GE 7FA.05 combustion turbines (CTs) with a heat recovery steam generator (HRSG) arranged in a two-on-one configuration with a steam turbine for additional electrical power generation. Ancillary equipment includes one (1) auxiliary boiler, one (1) fuel gas heater, one (1) emergency generator, one (1) emergency fire water pump, one (1) wet mechanical draft cooling tower, and four (4) diesel-fired 3.5 MW generating units for black start capability.

Construction Permitting History
CPV filed an initial certificate of public convenience and necessity (CPCN) application before the Maryland Public Service Commission (PSC) to develop and construct a natural gas-fired combined cycle combustion turbine electrical generating facility at the St. Charles Energy Center site on December 14, 2007. The design in this original CPCN application proposed the use of General Electric (GE) Model 7FA.04 combustion turbines resulting in an overall plant electrical output rating of 640 MW. The PSC issued a final order (CPCN Docket No. 9129) effective November 8, 2008, which contained specific air permitting conditions. However, the commencement of construction was delayed due to market conditions in the electrical generating power industry.

On August 25, 2011, CPV filed a CPCN application for a minor modification to the existing CPCN, to permit the use of the more efficient GE 7FA.05 combustion turbine model, which would result in an increase in the overall plant's electrical output from 640 to 725 MW. The PSC considered this to be a new matter and therefore, assigned a new PSC Case Docket No. 9280. Initial recommended licensing conditions for this minor modification were issued on January 26, 2012, and final recommended licensing conditions and a settlement agreement were filed on July 11, 2012. A proposed order was filed on September 6, 2012. Since no appeal was filed by any party, the proposed order became final on October 10, 2012.

On March 6, 2014, the recommended licensing conditions were revised to authorize an extension to the commencement of construction deadline to 72 months after the November 8, 2008, effective date of the CPCN final order issued in Case No. 9129.

On December 20, 2016, CPV submitted an application for a modification to the St. Charles Energy Center to install new upgraded DLN2.6+ combustors. A final order authorizing the modification was issued on March 5, 2018.

The facility commenced construction in October 2014 and commercial operation began on February 14, 2017.

On January 14, 2022, CPV Maryland, LLC ("CPV") filed an application to modify the CPCN to add four (4) diesel-fired 3.5 MW generating units for black start capability at its St. Charles Energy Center generating facility. After several months of review and proceedings, the request was approved and the effective date of the CPCN final order in Case No. 9437 was issued on August 17, 2022.

Title V Permitting History

CPV was issued a CPCN under PSC Case No. 9280 authorizing construction of the facility. The Maryland Department of the Environment (the Department) issued an initial State Permit-To-Operate (PTO No. 017-0235) to the facility on November 3, 2016. However, as a major source of air pollutant, the facility is required to apply and operate under a Part 70 Operating Permit (Title V).

CPV initially started up the CT units (first fire) on November 22, 2016 (CT 12) and November 23, 2016 (CT 11). However, commercial operations commenced on February 14, 2017, and therefore, CPV was required to submit a complete Title V permit application no later than February 14, 2018. An initial Title V permit application was submitted on November 30, 2017.

However, on March 5, 2018, the PSC issued Final Order No. 88609 authorizing CPV Maryland to install new, upgraded DLN2.6+ combustors in the General Electric (GE) 7FA.05 combustion turbines. The new combustors resulted in changes to the conditions of the CPCN (Case No. 9280). A new CPCN Case No. 9437 was issued on February 27, 2018. The applicant revised the Part 70 permit application, which reflects the conditions of the new CPCN. The revised Title V permit application was received at the Department on April 16, 2019.

On January 14, 2022, CPV Maryland filed an application to modify the CPCN to add four (4) diesel-fired 3.5 MW generating units for black start capability at its St. Charles Energy Center generating facility. The request was approved and the effective date of the CPCN final order in Case No. 9437 was issued on August 17, 2022. The four (4) diesel-fired emergency generators sets to be used for black start were then incorporated into the initial Title V permit for the St. Charles Energy Center generating facility.

The primary air emissions sources at the location originate from the two combustion turbines with the heat recovery steam generators, and the supporting ancillary equipment which includes the auxiliary boiler, fuel gas heater, the emergency generator, the emergency fire water pump, and the four (4) diesel-fired emergency generators sets to be used for black start . The following Table 1 summarizes the actual emissions from St Charles Energy Center 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)	HAPS (TPY)
2022	65.95	7.88	38.32	37.27	0.31	2.60
2021	66.69	8.15	24.51	38.30	0.31	2.66
2020	62.97	8.02	24.40	53.77	0.09	2.63
2019	60.67	8.83	25.37	46.21	0.12	2.91
2018	62.84	8.78	42.32	30.49	0.11	2.84
2017	88.58	7.97	18.35	16.29	0.004	2.67

GREENHOUSE GAS (GHG) EMISSIONS

CPV Maryland, LLC reported the following greenhouse gases (GHGs) from St Charles Energy Center related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate almost entirely from the combustion sources (i.e., CT, HRSGs, auxiliary boilers, emergency generators for black start capability, etc). The facility triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions, and therefore, there are applicable GHG Clean Air Act requirements. The emission certification reports for the years 2020, 2021, and 2022. showed that the CPV Maryland, LLC is a major source for GHG's (threshold: 100,000 TPY CO_{2e}). The Permittee is required to quantify facility wide GHG's emissions and report them in accordance with Section 3 of the Part 70 permit. Table 2 summarizes the emissions from the CPV Maryland, LLC based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2020 tpy CO_{2e}	2021 tpy CO_{2e}	2022 tpy CO_{2e}
Carbon Dioxide,CO_2	1	1,587,983	1,599,665	1,599,597
Methane CH_4	25	33.77	32.13	29.60
Nitrous Oxide N_2O	300	2.83	2.97	2.96
Total GHG CO_{2eq}		**1,588,019**	**1,599,700**	**1,599,629**

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

St. Charles Energy Center's major air emissions sources consist of two GE 7FA.05 combustion turbines with a heat recovery steam generator (HRSG) arranged in a two-on-one configuration with a steam turbine for additional electrical power generation. Ancillary equipment includes one auxiliary boiler, one fuel gas heater, one emergency fire water pump (FWP), one emergency generator (EG), and one mechanical draft cooling tower, and four (4) diesel-fired 3.5 MW generating units for black start capability.

St. Charles Energy Center is a *major* source of carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), and greenhouse gases (GHGs) and a *minor* source of hazardous air pollutants (HAPs). The facility is also subject to the following federal air regulations from Title 40, Code of Federal Regulations (CFR):

40 CFR 60—New Source Performance Standards (NSPS)

• **40 CFR 60, Subpart A**—NSPS General Provisions, which applies to emissions units subject to a categorical NSPS.

• **40 CFR 60, Subpart Dc**—NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, which is applicable to industrial, commercial, and institutional steam generating units with a maximum design heat input capacity of 100 million British thermal units per hour (MMBtu/hr) or less but greater than 10 MMBtu/hr. The auxiliary boiler, rated at 28.3 MMBtu/hr is subject to the requirements in 40 CFR, Subpart Dc. Since the auxiliary boiler is fired exclusively with natural gas, the following sections apply: 40 CFR 60.48c(a) and 40 CFR 60.48c(2).

• **40 CFR 60, Subpart IIII**—NSPS for Stationary Compression-Ignition Internal Combustion Engines, which applies to compression-ignition reciprocating internal combustion engines that commenced construction after July 11, 2005, and either were manufactured after April 1, 2006 (not including FWP engines) or manufactured after July 1, 2006, for certified National Fire Protection Association (NFPA) FWP engines only. The two emergency engines, EG and emergency FWP, and the four (4) diesel-fired emergency generators sets to be used for black start, are subject to this NSPS.

• **40 CFR 60, Subpart KKKK**—NSPS for Stationary Combustion Turbines, which applies to the two combustion turbines and HRSGs. The HRSGs associated with

the combustion turbines are subject to 40 CFR 60, Subpart KKKK, and not subject to Subpart Dc, in accordance with 60.40c(e).

• **40 CFR 60, Subpart TTTT**—NSPS for Greenhouse Gas Emissions for Electric Generating Stations, which applies to a steam generating unit, integrated gasification combined-cycle (IGCC) or a stationary combustion turbine that commenced construction after January 8, 2014. Since construction of the St Charles Energy Center commenced after January 8, 2014, this NSPS applies to the CT/HRSGs.

40 CFR 63—National Emissions Standards for Hazardous Air Pollutants (NESHAP)

• **40 CFR 63, Subpart A**—NESHAP General Provisions. St Charles Energy Center is an area source of hazardous air pollutants. The two emergency engines are subject to 40 CFR 63, Subpart ZZZZ, for stationary reciprocating internal combustion engines.

• **40 CFR 63, Subpart ZZZZ**—NESHAP for Stationary Reciprocating Internal Combustion Engines. The two emergency engines are subject to 40 CFR 63, Subpart ZZZZ, for stationary reciprocating internal combustion engines. Engines subject to regulations under 40 CFR 60 must meet the requirements under Subpart 60. No further requirements apply under 40 CFR 60, Subpart ZZZZ.

The combustion turbines/HRSGs are subject to provisions under 40 CFR 72, Acid Rain Provisions, and Continuous Emissions Monitoring (CEMs) under 40 CFR 75. The entire facility is subjected to the Federal NOx Budget Trading Program and Cross-State Air Pollution Rule (CASPR) NOx and SO_2 Trading Programs, under 40 CFR 97. The St Charles Energy Center is subject to Mandatory Greenhouse Gas Reporting, under 40 CFR 98, there are no applicable GHG Clean Air Act requirements.

The facility is also subject to federally enforceable state air quality requirements. The following federally enforceable state air quality requirements apply only to the CT/HRSGs: COMAR 26.11.01.11, COMAR 26.11.09.05A(1), COMAR 26.11.09.08B(2), COMAR 26.11.09.08G(2), and COMAR 26.11.09.08K.

Each combustion turbine is equipped with a separate discharge stack. The combustion turbines are also not subject to 40 CFR Part 63, Subpart YYYY – NESHAP for Stationary Combustion Turbines, because the St Charles Energy Center is not a major HAP source.

The Compliance Assurance Monitoring (CAM) Rule 40 CFR Subpart 64 is not applicable because St. Charles Energy Center is subject to an emissions limitation that was proposed by the EPA administrator after November 15, 1990

pursuant to Section 111 or 112 of the Clean Air Act (specifically the facility is subject to the NSPS for Stationary Combustion Turbines, – 40 CFR Subpart KKKK, and NSPS for Small Industrial-Commercial-Institutional Steam Generating Units, – 40 CFR Subpart Dc).

On December 1, 2017 the Department received an initial Part 70 permit application for the St. Charles Energy Center. An administrative completeness review was conducted and the application was deemed to be complete. The completeness determination letter was sent on December 12, 2017 granting the facility an application shield. However, the applicant received approval from the PSC to install new, upgraded DLN2.6+ combustors in the combustion turbines, which triggered changes to the conditions of the CPCN (Case No. 9280). A new CPCN Case No. 9437 was issued on February 27, 2018. The applicant revised the Part 70 permit application, which reflects the conditions of the new CPCN. The revised Title V application was received at the Department on April 16, 2019.

COMPLIANCE ASSURANCE MONITORING (CAM) APPLICABILITY

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.

CPV Maryland, LLC conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that installed units are not subject to the (CAM) Rule 40 CFR Subpart 64 for VOC emissions.

REGIONAL GREENHOUSE GAS INITIATIVE

The Regional Greenhouse Gas Initiative (RGGI) is a market-based carbon dioxide (CO_2) cap and trade program designed to reduce CO_2 emissions from fossil fuel-fired power plants. The Healthy Air Act required Maryland to join RGGI by July 2007. Maryland joined RGGI by signing RGGI's multi-state Memorandum of Understanding (MOU) on April 20, 2007. The MOU requires

Maryland to adopt regulations by December 31, 2008, implementing the RGGI program. The Maryland CO_2 Budget Trading Program, Code of Maryland Regulations (COMAR) 26.09.01 to .03, became effective on July 17, 2008. COMAR 26.09.04 became effective as an emergency action on April 4, 2008 and as a permanent action on August 25, 2008.

The regulations require the following:

1) Implement a cap and trade program for CO_2 emissions from fossil fuel-fired electric generating units located in Maryland having a capacity of at least 25 megawatts;
2) Distribute CO_2 allowances to stakeholders through auction, sale and/or allocation;
3) Require each affected source to have a CO_2 budget account representative and a compliance account;
4) Require each budget unit to hold in its source's compliance account at the end of each 3-year control period one allowance for each ton of CO_2 emissions emitted in that period;
5) Require sources to monitor emissions and submit quarterly and annual emission reports;
6) Establish set-aside accounts for voluntary renewable purchase, limited industrial generator exemptions, and long-term contract generators;
7) Establish a consumer benefit or strategic energy purpose fund to support energy efficiency, directly mitigate electricity ratepayer impacts, promote renewable or non-carbon emitting energy technologies, stimulate or reward investment in the development of innovative carbon emissions abatement technologies with significant carbon reduction potential, and fund administration of the program; and
8) Establish procedures to evaluate and award allowances to persons who undertake offset projects that will reduce CO_2 emissions.
9) Require affected sources to submit an application for a CO_2 Budget Permit. A CO_2 Budget Permit is an attachment to the Part 70 permit. This permit is state-only enforceable.

ACID RAIN PERMIT

Title IV of the Clean Air Act set a goal of reducing annual SO_2 emissions by 10 million tons below 1980 levels. To achieve these reductions, the law required a two-phase tightening of the restrictions placed on fossil fuel-fired power plants.

Phase I began in 1995 and affected 263 units at 110 mostly coal-burning electric utility plants located in 21 eastern and Midwestern states. An additional 182 units joined Phase I of the program as substitution or compensating units, bringing the total of Phase I affected units to 445. Emissions data indicate that 1995 SO_2 emissions at these units nationwide were reduced by almost 40 percent below their required level.

Phase II, which began in the year 2000, tightened the annual emissions limits imposed on these large, higher emitting plants and also set restrictions on smaller, cleaner plants fired by coal, oil, and gas, encompassing over 2,000 units in all. The program affects existing utility units serving generators with an output capacity of greater than 25 megawatts and **all new utility** units.

An Acid Rain Permit is attached to the Part 70 Permit as Appendix A

CROSS-STATE AIR POLLUTION RULE (CSAPR)

The U.S. Environmental Protection Agency (EPA) issued the Cross-State Air Pollution Rule (CSAPR) in July 2011 to address Clean Air Act requirements concerning interstate transport of air pollution and to replace the previous Clean Air Interstate Rule (CAIR) which the D.C. Circuit remanded to the EPA for replacement. Following the original rulemaking, CSAPR was amended by three further rules known as the Supplemental Rule, the First Revisions Rule, and the Second Revisions Rule. As amended, CSAPR requires 28 states to limit their state-wide emissions of sulfur dioxide (SO_2) and/or nitrogen oxides (NO_X) in order to reduce or eliminate the states' contributions to fine particulate matter and/or ground-level ozone pollution in other states. The emissions limitations are defined in terms of maximum state-wide "budgets" for emissions of annual SO_2, annual NO_X, and/or ozone season NO_X by each state's large electricity generating units (EGUs). The emissions budgets are implemented in two phases of generally increasing stringency. As the mechanism for achieving compliance with the emissions limitations, CSAPR establishes federal implementation plans (FIPs) that require large EGUs in each affected state to participate in one or more new emission trading programs that supersede the existing CAIR emissions trading programs. On December 30, 2011, in response to petitions challenging CSAPR, the D.C. Circuit granted a stay of the rule, ordering the EPA to continue administering CAIR on an interim basis. In a subsequent decision, the Court vacated CSAPR but on April 29, 2014, the U.S. Supreme Court reversed that decision and remanded the case to the D.C. Circuit Court for further proceedings. In order to allow CSAPR to replace CAIR in an orderly manner, EPA filed a motion asking the D.C. Circuit to lift the stay and to toll, by three years, all CSAPR compliance deadlines that had not yet passed. On October 23, 2014, the Court granted the EPA's motion.

Consistent with the Court's order, compliance with CSAPR's Phase 1 emissions budgets is now required in 2015 and 2016 and compliance with the rule's Phase 2 emissions budgets and assurance provisions is now required in 2017 and beyond.

This initial Part 70 permit identifies the applicable regulations of the CSAPR rule as found in 40 CFR Part 97 subparts AAAAA- NO_X Annual Trading Program,

subparts BBBBB- NO_X Ozone Season Trading Program, and subpart CCCCC SO_2 Group 1 Trading Program.

EMISSION UNIT IDENTIFICATION

CPV Maryland, LLC has identified the following emission units at the facility as being subject to Title V permitting requirements and having applicable requirements.

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU – 1	017-0235-5-0012	One (1) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.	September 2016
EU – 2	017-0235-5-0013	One (1) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.	September 2016
EU – 3	017-0235-5-0014	One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW.	September 2016
EU – 4	017-0235-5-0015	One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.	September 2016
EU – 5	017-0235-5-0016	One (1) natural gas fired auxiliary boiler rated at 28.3 MMBtu/hr equipped with low NOx burners.	September 2016
EU – 6	017-0235-6-0151	One (1) natural gas fired fuel gas heater rated at 9.5 MMBtu/hr.	September 2016
EU – 7	017-0235-9-0158	One (1) diesel fired emergency generator rated at 1,115 kilowatts.	September 2016

EU – 8	017-0235-9-0159	One (1) diesel fired fire water pump rated at 220 horsepower.	September 2016
EU – 9	017-0235-9-0160	One (1) ten-cell wet mechanical draft cooling tower controlled by drift eliminators.	September 2016
EU – 10	017-0235-9-0191, 9-0194, 9-0195, and 9-0196	Four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts.	August 2022

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 AND TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

FACILITYWIDE CONDITIONS

Applicable Standards/Limits:

Emissions and Operating Restrictions

(1) Plant-wide emissions, including emissions during periods of startup and shutdown, shall be limited to the following in any consecutive 12-month rolling period:

Pollutant	Emission Limit (tons per year)
Particulate Matter (PM) – Filterable	106.7
Particulate Matter (PM_{10}) – Filterable and Condensable	119.4
Particulate Matter ($PM_{2.5}$) – Filterable and Condensable	117.8
Nitrogen Oxides (NOx)	189.1
Carbon Monoxide (CO)	197.8
Volatile Organic Compounds (VOCs)	80.9
Greenhouse Gas (GHG) as Carbon Dioxide Equivalent (CO_2e)	2,667,018
Sulfuric Acid Mist (SAM)	9.3

[Reference: CPCN CPV Case 9437, Appendix A, Condition A-33]

Best Available Control Technology (BACT) Requirements

(2) The Permittee must operate the NOx CEMS at all times, including during startup and shutdown events. **[Reference: CPCN CPV Case 9280, Appendix A, Condition A-28(b)]**

Compliance Demonstration

Testing Requirements:

At least 30 days prior to conducting any compliance stack test, the Permittee shall submit a test protocol to the Department for review and approval. Testing shall be conducted in accordance with the Department's Technical Memorandum (TM) 91-01, as amended through Supplement 3 (October 1, 1997), 40 CFR Part 51, 40 CFR Part 60, or subsequent test protocols approved by the Department. In accordance with COMAR 26.11.01.04A, the Permittee may be required by the Department to conduct additional stack tests at any reasonable time, to determine compliance with COMAR Title 26, Subtitle 11. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-35, Condition A-35(a) & (b), and Condition A-39].**

Monitoring Requirements:

As part of the Best Available Control Technology (BACT) Requirements, the Permittee shall perform the following:

(1) Fugitive GHG emissions shall be evaluated from the natural gas piping and associated components through implementation of an audio, visual, and olfactory (AVO) program on a weekly basis, and properly documented, and leaks identified shall be repaired within five (5) days of discovery. The repairs should be documented, and records must be maintained. **[CPCN CPV Maryland Case 9437, Appendix A, Condition A-25]**

(2) Monitor potential leaks SF_6 leaks from circuit breakers. Detected leaks shall be repaired within five (5) days of discovery, the repairs documented, and the associated repair records maintained. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-26]**

(3) The emissions of CO_2 from the CT/HRSG units should be monitored and recorded hourly utilizing a CO_2 CEMS installed, calibrated, and maintained in accordance with 40 CFR Part 75. As an alternative to installing a CO_2

CEMS, emissions of CO_2 from the CT/HRSG units are to be calculated in accordance with Equation G-4 in 40 CFR Part 75, Appendix G by continuously monitoring and monthly recording fuel flow. Data monitoring to determine CO_2 emissions shall include periods of startup and shutdown. Methane (CH_4) and nitrous oxide (N_2O) emission from the CTs shall be calculated in accordance with the methodology and emission factors noted in 40 CFR Part 98, Subpart D. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(c)]**

Record Keeping Requirements:

(1) All records and logs required by the Part 70 Operating Permit (Title V) shall be maintained at the facility for at least five (5) years after the completion of the calendar year in which they were collected. These data shall be readily available for inspection by representatives of the Department. **[Reference: COMAR 26.11.01.05 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-55]**

(2) The Permittee shall maintain at the facility for at least five (5) years records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants.

(3) As part of the Best Available Control Technology (BACT) Requirements, the Permittee shall record the time, date, and duration of each startup (include rapid response or conventional) and shutdown event. The record must include calculations of NOx and VOC emissions during each event based on the CEMS data (CO CEMS will be used as a surrogate for VOC using the same correlation determined in Table A and per the parametric monitoring plan required by CPCN CPV Maryland Case 9437, Appendix A, Condition A-51)). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-28(c)]**

Reporting Requirements:

The Permittee shall submit a report to the Department to be postmarked by the 30th day following the end of each calendar quarter that:

(a) Summarizes separately the date, time, and duration of each startup (include rapid response or conventional), shutdown, and malfunction event that occurred for each CT during the reporting period. The report shall include total emissions of NOx, CO, and VOC emissions associated with each event and an indication of whether each startup and shutdown event was in compliance with the emissions limits noted in Table A;

(b) Summarizes the monthly and rolling 12-month total CT hours of operation, fuel consumption, heat input (MMBtu/hr), and gross power output (MW);
(c) Provides the duct burner hours of operation and CTs hours of operation on a 12-month rolling basis;

(d) Summarizes the monthly and rolling 12-month total hours of operation, fuel consumption and total emissions of PM, PM_{10},$PM_{2.5}$, NOx, CO, CO_2e, and VOCs separately for the auxiliary boiler, emergency generator, fire water pump, and fuel gas heater;

(e) Summarizes the rolling 12-month facility-wide emissions of PM, PM_{10}, $PM_{2.5}$, NOx, CO, CO_2e, VOCs, and SAM;

(f) Includes the applicable emission limit for each pollutant; and

(g) Includes all instances of deviation from permit requirements.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-46]

Emissions Unit Number(s) – EU-1, EU-2, EU-3 & EU-4

MDE Reg. No. 017-0235-5-0012 & 017-0235-5-0013 Installed September 2016

Two (2) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.

MDE Reg. No. 017-0235-5-0014 & 5-0015 Installed September 2016

One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW. One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.

Applicable Standards and Limits

A. Control of Visible Emissions

Fuel Burning Equipment. – **[COMAR 26.11.09.05(A)(1)]**
"In Areas I, II, V, and VI, 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 greater than 20 percent opacity."

Compliance Demonstration

Testing Requirements:

The Permittee shall following the testing requirements in Section 2.2.C.

Monitoring Requirements:

The Permittee shall following the monitoring requirements in Section 2.3.C.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section 2.4.C.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section 2.5.C.

B. Control of NOx Emissions for Major Stationary Sources Demonstration of Compliance. – [COMAR 26.11.09.08B(2)]

(a) "A person subject to a NO_x emission standard in this regulation shall demonstrate compliance as follows:
  (i) For installations equipped with a CEM, compliance with the NO_x emissions standards in this regulation shall be established using CEM data."
  (ii) *Not applicable.*

(b) "CEMs shall be certified in accordance with 40 CFR Part 60, Appendix B, or Part 75, Appendix A."

(c) "CEMs shall meet the quality assurance criteria in 40 CFR Part 60, Appendix F, or, for sources subject to Title IV of the Clean Air Act (Acid Rain), the quality assurance criteria in 40 CFR Part 75, Appendix B."

(d) "Except as otherwise established by the Department and approved by the EPA, for a person who establishes compliance with the NO_x emissions standards in this regulation using a CEM, compliance shall be determined as 30-day rolling averages."

(e) *Not applicable.*

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. – [COMAR 26.11.09.08G(2)]
"A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NOx 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."

Note: During periods of start-up or shutdown the NOx lbs/event limit is listed in Table A.

Compliance Demonstration

Testing Requirements:

The Permittee must demonstrate compliance with the control of NOx emissions by following the general requirements for Continuous Emissions Monitoring Systems (CEMS) listed in COMAR 26.11.01.11B, and COMAR 26.11.01.11C.

Monitoring Requirements:

The Permittee must demonstrate compliance with the control of NOx emissions by using continuous emissions monitoring systems (CEMS) in accordance with COMAR 26.11.01.11C.

Recordkeeping Requirements:

The Permittee must demonstrate compliance with the recordkeeping requirements by following the procedures in accordance with COMAR 26.11.01.11E.

Reporting Requirements:

The Permittee must demonstrate compliance with the reporting requirements by following the procedures in accordance with COMAR 26.11.01.11E.

C. Operational Limitations

(1) The Permittee shall comply with all of the requirements in Table A – Emissions Standards for CTs.

(2) The Permittee shall install a fuel flow meter and continuously monitor the fuel flow for each CT and the duct burner. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(d)]**

(3) The Permittee shall install, calibrate, and operate a CEMS at all times for each CT/HRSG that measures stack gas CO and CO_2 emissions. As an alternative, CO_2 emissions can be monitored using Equation G-4 in 40 CFR Part 75, Appendix G. The CEMS shall meet the applicable requirements of 40 CFR Part 60, Appendix B, Performance Specification 4 for CO, and 40 CFR Part 60, Subpart F, and Procedure 1. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(e)]**

(4) The Permittee shall install, calibrate, maintain, and operate a continuous NOx emissions monitoring system as described in 40 CFR Part 60, Appendix B and the Quality Assurance Procedures under 40 CFR Part 60, Appendix F, 40 CFR §60.4335(b) and 40 CFR §60.4345. **[Reference: 40 CFR §60.4340(a) and (b) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(b)]**

(5) The CEMS installed on the CTs shall conform to general, quality assurance, monitoring and determining compliance, and record keeping and reporting requirements as set forth in COMAR 26.11.01.11. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-11(e)]**

Emissions and Operating Restrictions

(6) The Permittee shall limit emissions of ammonia resulting from un-reacted ammonia (ammonia slip) from each of the SCRs to be installed on the CTs/HRSGs as specified in Table A. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-32]**

(7) The CTs/HRSGs shall only be fueled with pipeline quality natural gas. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-45]**

40 CFR Part 60, Subpart KKKK Requirements

(8) The Permittee must meet the following emissions limits for NOx:

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO_x emission standard
New, modified, or reconstructed turbine firing natural gas	>850 MMBtu/hr	15 parts per million (ppm) at 15 percent O_2 or 54 ng/J (nanograms per Joule) of useful output (0.43 lb/MW-hr)
Heat recovery units operating independent of the combustion turbine	All sizes	54 ppm at 15 percent O_2 or 110 ng/J of useful output (0.86 lb/MW-hr)

[Reference: 40 CFR §60.4320(a) and 40 CFR Part 60, Subpart KKKK, Table 1]

Note: If the Permittee has two or more turbines that are connected to a single generator, each turbine must meet the emissions limits for NOx. **[Reference: 40 CFR §60.4320(b)]**

(9) The Permittee must meet one of the following SO_2 emission limits:

(a) The Permittee must not cause to be discharged into the atmosphere from the subject stationary CT any gases which contain SO_2 in excess of 110 ng/J (0.90 lb/MWh gross output) or

(b) The Permittee must not burn in the stationary CT any fuel which contains total potential sulfur emissions in excess of 26 ng/J (0.060 lb SO_2/MMBtu) heat input.

[Reference: 40 CFR §60.4330(a)(1) and (2)]

(10) The Permittee must operate and maintain the stationary CT, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. **[Reference: 40 CFR §60.4333(a)]**

(11) When an affected unit with heat recovery utilizes a common steam header with one or more CTs, the owner or operator shall either:

(a) Determine compliance with the applicable NO_x emissions limits by measuring the emissions combined with the emissions from the other unit(s) utilizing the common heat recovery unit; or

(b) Develop, demonstrate, and provide information satisfactory to the Administrator on methods for apportioning the combined gross energy output from the heat recovery unit for each of the affected CTs. The Administrator may approve such demonstrated substitute methods for apportioning the combined gross energy output measured at the steam turbine whenever the demonstration ensures accurate estimation of emissions related under this part. **[Reference: 40 CFR §60.4333(b)]**

Note: Compliance with the NOx emission limit is demonstrated by meeting the NOx BACT limit of 2.0 ppm.

(12) The Permittee must comply with the following for NOx CEMS:

(a) Each NO_X diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to this part, except the 7-day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F to this part is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to Appendix A of Part 75 of this chapter is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

(b) As specified in §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

(c) Each fuel flow meter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flow meters that meet the installation, certification, and quality assurance

requirements of Appendix D to Part 75 of this chapter are acceptable for use under this subpart.

(d) The owner or operator shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may, with state approval, satisfy the requirements of this paragraph by implementing the QA program and plan described in section 1 of Appendix B to Part 75 of this chapter. **[Reference: 40 CFR §60.4345]**

40 CFR Part 60, Subpart TTTT Requirements

(13) The Permittee is subject to all operating requirements of 40 CFR Part 60, Subpart TTTT.

(1) **40 CFR Part 60 Subpart TTTT** – Greenhouse Gas Emissions for Electric Generating Units.
§60.5520 - What CO_2 emissions standard must I meet?
(**a**) For each affected EGU subject to this subpart, you must not discharge from the affected EGU any gases that contain CO_2 in excess of the applicable CO_2 emission standard specified in table 1 or **2** of this subpart, consistent with paragraphs (b), (c), and (d) of this section, as applicable.
(**b**) Except as specified in paragraphs (c) and (d) of this section, you must comply with the applicable gross energy output standard, and your operating permit must include monitoring, recordkeeping, and reporting methodologies based on the applicable gross energy output standard. For the remainder of this subpart (for sources that do not qualify under paragraphs (c) and (d) of this section), where the term "gross or net energy output" is used, the term that applies to you is "gross energy output."

Table 2 of Subpart TTTT of Part 60—CO_2 Emission Standards for Affected Stationary Combustion Turbines That Commenced Construction After January 8, 2014 and Reconstruction After June 18, 2014 (Net Energy Output-Based Standards Applicable as Approved by the Administrator)
[Note: Numerical values of 1,000 or greater have a minimum of 3 significant figures and numerical values of less than 1,000 have a minimum of 2 significant figures]

Affected EGU	CO_2 Emission standard
Newly constructed or reconstructed stationary combustion turbine that supplies more than its design efficiency or 50 percent, whichever is less, times its potential electric output as net-electric sales on both a 12-operating month and a 3-year rolling average basis and combusts	450 kg of CO_2 per MWh of gross energy output (1,000 lb CO_2/MWh); or 470 kilograms (kg) of

more than 90% natural gas on a heat input basis on a 12-operating-month rolling average basis	CO_2 per megawatt-hour (MWh) of net energy output (1,030 lb/MWh).

(2) **GHG (as CO_2) BACT** requirements listed in the CPCN 9437: 1,000 lb/CO_2/MW-hr with and without duct firing (gross), at all times. (12-month rolling average).

See CO_2 Budget Permit attached as Appendix B.

BACT Requirements

(1) For the CTs and associated duct burners and HRSGs, BACT shall be the use of pipeline quality natural gas fuel only, operation of advanced dry low-NOX burner technology, utilization of SCR technology, operation of an oxidation catalyst, application of good combustion practices,

(a) The Permittee must operate the CO CEMS at all times, including during startup and shutdown events. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(a)]**

(b) The Permittee shall record the time, date, and duration of each startup (include rapid response or conventional) and shutdown event. The record must include calculations of the CO, PM, PM_{10}, and $PM_{2.5}$ emissions for each event. The Permittee shall calculate the CO emissions from the CEMS data. The PM, PM_{10}, and $PM_{2.5}$ emissions during startup and shutdown events shall be calculated using the applicable emission factor determined from the stack testing and the total recorded heat input (MMBtu) during the associated startup or shutdown event. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-20(b)]**

(2) Emissions from the CTs and associated duct burners and HRSGs shall meet the LAER limits as specified in Table A, except during periods of startup and shutdown, with the use of low NOx technology, and SCR, and an oxidation catalyst. CPV Maryland shall also comply with the following: The maximum total hours of duct burner firing for both CTs combined shall not exceed a total of 16,000 hours in any consecutive, rolling 12-month period. CPV Maryland shall monitor the total amount of hours operated for each CT and each duct burner. CPV Maryland shall report quarterly, the actual total duct burner hours of operation and the actual total CT hours of operation on a rolling 12-month basis to demonstrate compliance. This information shall be included in the quarterly report required in Condition

1.5 of this Permit. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-28(a)]**

40 CFR Part 72 Requirements

(3) The Permittee is required to hold allowances in the unit's compliance subaccount not less than the total annual emissions of SO_2 for the previous year and comply with applicable Acid Rain limits for SO_2. **[Reference: 40 CFR §72.9(c) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(c)]**

CSAPR 40 CFR Part 97 Requirements

(4) The Permittee is subject to all applicable requirements of 40 CFR Part 97, including annual holding and reporting requirements.

Compliance Demonstration

Testing Requirements:

(1) A compliance stack testing of the CTs shall be conducted within 36 months after the issuance of the Part 70 Operating Permit (Title V) for the following pollutants: NOx, VOC, PM, PM_{10}, $PM_{2.5}$, CO, SAM, and ammonia and SO_2 (unless fuel sulfur content is determined through fuel sampling in lieu of stack testing in accordance with 40 CFR §60.4415 as noted in Table A). Continuous compliance with the emission limits specified in the CPCN for NOx, CO, and CO_2 shall be demonstrated by installing and operating a certified CEMS. The CO CEMS will be used as a surrogate for VOC to conduct continuous compliance demonstrations. The CEMS shall comply with applicable performance specifications in 40 CFR Part 60, Appendix B, Quality Assurance Procedures in 40 CFR Part 60, Appendix F, and applicable requirements in 40 CFR Part 75. As an alternative to a certified CEMS, CO_2 can be monitored using Equation G-4 in 40 CFR Part 75, Appendix G-4. When using Equation G-4, continuous demonstration of compliance with CO_2 limits shall be demonstrated by ongoing quality assurance for flow meters required per 40 CFR Part 75, Appendix D. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-36]**

(2) The Permittee shall conduct subsequent (annual) performance tests on the CTs, as required in 40 CFR §60.8 for NOx. **[Reference: 40 CFR §60.4400, 40 CFR §60.4415, and CPCN CPV Maryland Case 9437, Appendix A, Condition A-38]**

(3) Compliance with the SO_2 emission standard in 40 CFR §60.4365 shall be demonstrated by either of the following:

(a) The fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that the maximum total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet, has potential sulfur emissions of less than 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input; or

(b) Representative fuel sampling data which that the sulfur content of the fuel does not exceed 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input. At a minimum the amount of fuel sampling data specified in Section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR Part 75 is required.

[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(a)]

Monitoring Requirements:

(1) The Permittee shall follow the calculation procedures set forth in 40 CFR §60.4250 for purposes of identifying excess emissions. **[Reference: 40 CFR §60.4350 and CPCN CPV Maryland Case 9437 Appendix A, Condition A-12(c)]**

(2) The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO_2/J (0.060 lb SO_2/MMBtu) heat input using one of the methods given in 40 CFR §60.4365. If the Permittee elects to comply with the minimum fuel sulfur content limit under 40 CFR §60.4330, the Permittee must monitor the total sulfur content of the CTs fuel using the methods described in 40 CFR §60.4415 at a frequency described in 40 CFR §60.4370. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084-82, 94, 05, D4810-88 (1999), D5504-01, or D6228-98 (2003), or Gas Processors Association Standard 2377-86, may be used to assess compliance with the applicable fuel sulfur limit. **[Reference: 40 CFR §60.4360 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-12(d)]**

(3) For turbines required to monitor combustion parameters or parameters that document proper operation of the NOx emission controls:

(a) An excess emission is a 4-hr rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.

(b) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid.

[Reference: 40 CFR §60.4380(c)]

Note: This requirement is satisfied by compliance with the BACT/LAER NOx limit.

(4) The Permittee to the extent applicable must comply with the monitoring requirements in 40 CFR Part 75. **[Reference: 40 CFR §72.9(b)(1) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(b)]**

(5) The Permittee is required to monitor, as applicable, opacity, NOx, and CO_2 emissions; to ensure that continuous emission monitoring systems required by 40 CFR Part 75 meet the equipment, installation, and performance specifications in 40 CFR Part 75; and to maintain according to the quality assurance and quality control procedures in this part. **[Reference: 40 CFR §75.10 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(b)]**

(6) The Permittee is required to prepare a monitoring plan with sufficient information on applicable continuous opacity or emissions monitoring systems to demonstrate that all NOx, CO_2 emissions and opacity, as required, are monitored and reported. **[Reference: 40 CFR §75.53(a) and CPCN CPV Maryland Case 9437, Appendix A Condition A-15(c)]**

(7) Emissions of CO_2 from the CTs are to be monitored and recorded hourly utilizing a data handling acquisition system (DHAS) installed, calibrated, and maintained in accordance with 40 CFR Part 75. **[Reference: 40 CFR §75.10(a)(3) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-41]**

(8) The Permittee is subject to the monitoring requirements of 40 CFR §60.5535 and §60.5540.

Recordkeeping Requirements:

(1) The Permittee shall maintain annual fuel use records for the CTs/HRSGs on site for not less than three years, and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08K and CPCN CPV Maryland Case 9437 Appendix A, Condition A-11(c)]**

(2) The Permittee is required, unless otherwise provided, to retain required documents for a period of five (5) years from the date that the document was created. Documents may include, but are not limited to, certificates of representation, emissions monitoring information, copies of reports, compliance certifications, and other documentation pertaining to the Acid Rain program. **[Reference: 40 CFR §72.9(f) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(e)]**

(3) The Permittee is required to keep a file for each affected unit of all measurements, data, reports, and other information required by 40 CFR Part 75 in a form suitable for inspection for at least three (3) years from the date of each record. **[Reference: 40 CFR §75.57(a) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(d)]**

(4) The Permittee is required to record various operations, emissions, and other information, as specified. **[Reference: 40 CFR §75.57(b) through (f) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(e)]**

(5) The Permittee is subject to the record keeping requirements of 40 CFR §60.5560 and §60.5565.

Reporting Requirements:

(1) Per 40 CFR §60.4375, the Permittee shall submit reports of excess emissions and monitor downtime associated with the CTs, in accordance with 40 CFR §60.7(c). Excess emissions as defined in 40 CFR §60.4380 (NOx) and 40 CFR §60.4385 (SO_2) must be reported for all periods of unit operation, including startup, shutdown, and malfunction. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-50 and 40 CFR §60.4375(a)]**

(2) **All reports required under §60.7(c) must be postmarked by** the 30th day following the end of each 6-month period. **[Reference: 40 CFR §60.4395]**

(3) The Permittee is required to submit a proposed offset plan if emission limitations are exceeded. **[Reference: 40 CFR §72.9(e) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-14(d)]**

(4) The Permittee is required to comply with all reporting requirements, with all signatory requirements of 40 CFR §72.21 of this chapter for all submissions, and with all required certifications and reports. **[Reference: 40 CFR §75.60(a) and (b) and CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(f)]**

(5) Unless otherwise approved by the Department, the Permittee shall submit electronic quarterly reports from the data acquisition and handling system (DAHS) for the CTs to the EPA Clean Air Markets Division System as specified in 40 CFR §75.64. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-15(g)]**

(6) The Permittee is subject to the reporting requirements of **40 CFR §60.5555**.

Emissions Unit Number(s) – **EU-1, EU-2, EU-3 & EU-4**

MDE Reg. No. 017-0235-5-0012 & 017-0235-5-0013 Installed September 2016

Two (2) natural gas fired CT rated at 2,309 MMBtu/hr equipped with low NOx combustors, a selective catalytic reduction system (SCR) and an oxidation catalyst.

MDE Reg. No. 017-0235-5-0014 & 5-0015 Installed September 2016

One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR; with an associated steam turbine with a nominal generating capacity of 315 MW. One (1) HRSG rated at 450 MMBtu/hr with duct burner equipped with low NOx burners and an SCR.

Applicable Standards and limits:
TR NOx Annual Trading Program 40 CFR Part 97 Subpart AAAAA
The Permittee shall comply with the provisions and requirements of §97.401 through §97.435.

Note: **§97.406(c) NOx emissions requirements**. For TR NOx Annual emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NOx Annual source and each TR NOx Annual unit at the source shall hold, in the source's compliance account, TR NOx Annual allowances available for deduction for such control period under §97.424(a) in an amount not less than the tons of total NOx emissions for such control period from all TR NOx Annual units at the source.

Allowance transfer deadline means, for a control period in a given year, midnight of June 1 (if it is a business day), or midnight of the first business day thereafter (if June 1 is not a business day), immediately after such control period and is the deadline by which a TR NOx Annual allowance transfer must be submitted for recordation in a TR NOx Annual source's compliance account in order to be available for use in complying with the source's TR NOx Annual emissions limitation for such control period in accordance with §§97.406 and 97.424.

TR NOx Ozone Season Trading Program 40 CFR Part 97 Subpart BBBBB
The Permittee shall comply with the provisions and requirements of §97.501 through §97.535.
Note: **§97.506(c) NOx emissions requirements**. For TR NOx Ozone Season emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NOx Ozone Season source and each TR NOx Ozone Season unit at the source shall hold, in the source's compliance account, TR NOx Ozone Season allowances available for deduction for such control period under §97.524(a) in an amount not less than the tons of total NOx emissions for such control period from all TR NOx Ozone Season units at the source.

Allowance transfer deadline means, for a control period in a given year, midnight of June 1 (if it is a business day), or midnight of the first business day thereafter (if June 1 is not a business day), immediately after such control period and is the deadline by which a TR NOx Ozone Season allowance transfer must be submitted for recordation in a TR NOx Ozone Season source's compliance account in order to be available for use in complying with the source's TR NOx Ozone Season emissions limitation for such control period in accordance with §§97.506 and 97.524.

TR SO_2 Group 1 - Trading Program 40 CFR Part 97 Subpart CCCCC
The Permittee shall comply with the provisions and requirements of §97.601 through §97.635.
Note: **§97.606(c) SO_2 emissions requirements.** For TR SO_2 Group 1 emissions limitation: As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO_2 Group 1 source and each TR SO_2 Group 1 unit at the source shall hold, in the source's compliance account,

TR SO_2 Group 1 allowances available for deduction for such control period under §97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all TR SO_2 Group 1 units at the source.
Allowance transfer deadline means, for a control period in a given year, midnight of June 1 (if it is a business day), or midnight of the first business day thereafter (if June 1 is not a business day), immediately after such control period and is the deadline by which a TR SO_2 Group 1 allowance transfer must be submitted for recordation in a TR SO_2 Group 1 source's compliance account in order to be available for use in complying with the source's TR SO_2 Group 1 emissions limitation for such control period in accordance with §§97.606 and 97.624.

Compliance Demonstration
The Permittee shall comply with the monitoring, recordkeeping and reporting requirements found in §97.606, §97.630, §97.631, §97.632, and §97.633.

The Permittee operates continuous emission monitoring system (CEMS) pursuant to 40 CFR Part 75, Subpart B (for SO_2 monitoring) and 40 CFR Part 75, Subpart H (for NO_X monitoring).

The Permittee shall comply with the monitoring, recordkeeping and reporting requirements found in §97.406, §97.430, §97.431, §97.432, and §97.433 for the NO_X Annual Trading Program and §97.506, §97.530, §97.531, §97.532, and §97.533 for the NO_X Ozone Season Trading Program.

Emissions Unit Number(s) – EU-5 & EU-6

MDE Reg. No. 017-0235-05-0016 Installed September 2016.

One (1) natural gas fired auxiliary boiler rated at 28.3 MMBtu/hr equipped with low NOx burners.

MDE Reg. No. 017-0235-6-0151 Installed September 2016.

One (1) natural gas fired fuel gas heater rated at 9.5 MMBtu/hr.

Applicable Standards and Limits

A. **Control of Visible Emissions**
Fuel Burning Equipment. – [COMAR 26.11.09.05(A)(1)]

"In Areas I, II, V, and VI, 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 greater than 20 percent opacity."

Compliance Demonstration:

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 3.3.C.

Monitoring Requirements:

The Permittee shall perform visible observation in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If the auxiliary boiler or fuel gas heater is not operated in a quarter, the Permittee shall document this and no visible emission observation is required. If visible emissions are observed, the Permittee shall inspect the combustion control system, perform necessary adjustments and/or repairs within 48 hours, and document in writing the results of inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform EPA Reference Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.119.09.05A(1) and (5), COMAR 26.11.02.02H and CPCN CPV Case 9437, Appendix A, Condition A-17]**

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section 3.4.C.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section 3.5.C.

B. Control of NOx Emissions
Fuel Burning Equipment with a Rated Heat Input of Less than 100 MMBtu/hr. – [COMAR 26.11.09.08(E)]
"A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

(1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
(2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
(3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
(4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
(5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 3.3.C.

Monitoring Requirements:

The Permittee shall following the monitoring requirements in Section 3.3.C.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section 3.4.C.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section 3.5.C.

C. Operational Limits

(1) The auxiliary boiler and fuel gas heater shall each be fueled exclusively on pipeline quality natural gas at all times when operating. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-16(c) and A-45]**

(2) The auxiliary boiler and fuel gas heater shall each be fueled exclusively on pipeline quality natural gas at all times when operating. **[Reference:**

CPCN CPV Maryland Case 9437, Appendix A, Conditions A-16(c) and A-45]

(3) The auxiliary boiler is subject to 40 CFR Part 60, Subpart Dc, which contains various provisions for notification (40 CFR §60.48c(a)) and record keeping (40 CFR §60.48c(g) and 40 CFR §60.48c(i)). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-17]**

(4) In accordance with EPA Reference Method 22, visible observations shall be performed at least once each calendar quarter to verify that there are no visible emissions during operation. If the auxiliary boiler or fuel gas heater is not operated in a quarter, the Permittee shall document this and no visible emission observation is required. If visible emissions are observed, the Permittee shall inspect the combustion control system, perform necessary adjustments and/or repairs within 48 hours, and document in writing the results of inspection, adjustments and/or repairs. After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, the Permittee shall perform EPA Reference Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. **[Reference: COMAR 26.119.09.05A(1) and (5), COMAR 26.11.02.02H and CPCN CPV Maryland Case 9437, Appendix A, Condition A-18]**

Other Emissions and Operating Restrictions

(5) The Permittee shall install a fuel flow meter on each of the auxiliary boiler and fuel gas heater, and continuously monitor the fuel flow to each. The fuel flow shall be recorded monthly. The total monthly and rolling 12-month total heat input to the boiler shall be calculated and included in the quarterly report to demonstrate compliance with the heat input limit in Part C2(5) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-20). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-34]**

BACT Requirements

(6) For the auxiliary boiler, BACT shall be achieved through the use of natural gas fuel only, operation of low-NO_x burner technology, application of good combustion practices, and a maximum heat input to the auxiliary boiler of 113,200 MMBtu for any rolling 12-month period. In addition, the following emission limitations shall apply:

(a) Emissions of NOx shall not exceed 0.011 lbs/MMBtu on a 3-hr block average basis;

(b) Emissions of CO shall not exceed 0.02 lbs/MMBtu on a 3-hr block average basis;

(c) Emissions of PM and PM_{10} shall each not exceed 0.005 lbs/MMBtu on a 3-hr block average basis;

(d) The heat input of the auxiliary boiler is limited to no more than 113,200 MMBtu in any rolling 12-month period; and

(e) Project-wide GHG emissions (on a CO_2e basis) shall not exceed 2,665,914 tons in any rolling 12-month period. CH_4 and N_2O emissions from the auxiliary boiler shall be calculated in accordance with the methodology and emission factors noted in 40 CFR Part 98, Subpart C. On a monthly basis, fuel consumption, coupled with the appropriate emission factors and global warming potentials (25 for CH_4 and 298 for N_2O), shall be used to calculate the CH_4 and N_2O emissions on a CO_2e basis. These emission rates, summed with the monthly CO_2 emissions based on 40 CFR Part 98, Subpart C or other methods approved by the Department shall be used to calculate GHG emissions from the auxiliary boiler on a CO_2e basis. To demonstrate compliance with the GHG BACT determination, the Permittee shall conduct an annual combustion analysis on the auxiliary boiler and fuel gas heater. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-21]**

LAER Requirements

(7) LAER for the auxiliary boiler shall be achieved through the use of natural gas fuel only, operation of low-NOx burner technology, application of good combustion practices, and a maximum heat input to the auxiliary boiler of 113,200 MMBtu for any rolling 12-month period. Emissions from the auxiliary boiler shall not exceed the following emission limits to meet LAER:

(a) NOx emissions shall not exceed 0.011 lb/MMBtu on a 3-hr block average basis; and

(b) VOC emissions shall not exceed 0.002 lb/MMBtu on a 3-hr block average basis.

[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-29]

(8) To meet LAER, the fuel gas heater shall be designed to meet the following limitations to be achieved through the exclusive use of pipeline quality natural gas and good combustion practices:

(a) NO_x emissions shall not exceed 0.035 lb/MMBtu on a 3-hr block average basis; and

(b) VOC emissions shall not exceed 0.005 lb/MMBtu on a 3-hr block average.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-31]

Compliance Demonstration

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 3.3.C.

Monitoring Requirements:

The Permittee shall install a fuel flow meter on each of the auxiliary boiler and fuel gas heater, and continuously monitor the fuel flow to each. **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-33]**

Record Keeping Requirements:

Applies to the auxiliary boiler only
The Permittee must keep the following records for at least five (5) years in a form suitable and readily available for expeditious review:

(a) Hours of operation of the auxiliary boiler and

(b) Records of the amounts of fuel combusted during each calendar month. **[Reference: 40 CFR §60.48c(g)(2), 40 CFR §60.48c(i) and COMAR 26.11.03.06C]**

Reporting Requirements:

The Permittee shall provide the Department with the manufacturer, make, and model, vendor specifications, or other details requested by the Department upon selection of auxiliary sources (auxiliary boiler and fuel gas heater). **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-54]**

Emissions Unit Number(s) – EU-7 & EU-8

MDE Reg. No. 017-0235-9-0158

One (1) diesel fired emergency generator rated at 1,115 kilowatts.

MDE Reg. No. 017-0235-9-0159

One (1) diesel fired fire water pump rated at 220 horsepower.

Applicable Standards/Limits:

A. **Control of Visible Emissions**
Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]
(2) Emissions During Idle Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
(3) Emissions During Operating Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity."
(4) Exceptions.
(a) "Section E(2) of this regulation 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."
(b) "Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
(i) Engines that are idled continuously when not in service: 30 minutes;
(ii) All other engines: 15 minutes."
(c) "Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration:

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Monitoring Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section 4.4.C.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section 4.5.C.

B. **Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]**
"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: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

Compliance Demonstration:

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Monitoring Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section 4.4.C.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section 4.5.C.

C. Operational Limits

(1) The units are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and recordkeeping requirements (40 CFR §60.4200 *et seq.*), and related applicable provisions of 40 CFR §60.7 and 40 CFR §60.8. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(d)]**

(2) The units are subject to the NESHAP for Stationary Reciprocating Internal Combustions Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and record keeping requirements. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(e)]**

40 CFR Part 60, Subpart IIII Requirements
Conditions (3) through (6) apply to the emergency diesel fired generator (ARMA Registration No. 027-0235-9-0158) only.

(3) Exhaust emissions from the diesel fired emergency generator must not exceed:

(a) Non-methane hydrocarbons (NMHC) + NO_X: 6.4 grams per kilowatt hour (g/kW-hr);

(b) CO: 3.5 (g/kW-hr); and

(c) PM: 0.2 (g/kW-hr).
[Reference: 40 CFR §60.4205(b), 40 CFR §60.4202(a)(2), 40 CFR §89.112(a) and Table 1]

Note: This emission limits expressed in g/kW-hr are equivalent to the CPCN limits expressed in g/Hp-hr.

(4) Exhaust opacity from the emergency generator must not exceed:

(a) 20 percent during the acceleration mode;

(b) 15 percent during the lugging mode; and

(c) 50 percent during the peaks in either the acceleration or lugging modes.
[Reference: 40 CFR §60.4205(b) 40 CFR §60.4202(a)(2), and 40 CFR §89.113(a)]

(5) There is no time limit on the use of the emergency generator in emergency situations. **[Reference: 40 CFR §60.4211(f)(1)]**

(6) The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Reference: 40 CFR §60.4211(f)(2)(i)]**

Note: Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted.

Conditions (7) and (8) apply to the fire water pump engine only.

(7) The displacement of the emergency diesel fired generator shall be less than 10 liters per cylinder. **[Reference: 40 CFR §60.4205(c)]**

(8) The diesel fired fire water pump must meet the following emissions standards:

(a) NMHC + NOx: 4.0 g/kW-hr;

(b) CO: 3.5 g/kW-hr; and

(c) PM: 0.20 g/kW-hr.
[Reference: 40 CFR §60.4205(c) and 40 CFR Part 60, Subpart IIII, Table 4]

Conditions (9) through (11) apply to both the emergency generator and the fire water pump.

(9) The Permittee must operate and maintain the diesel fired emergency generator and the diesel fired fire water pump that achieves the emission standards as required in 40 CFR §60.4205 according to the manufacturer's written instructions or procedures developed by the owner

or operator that are approved by the engine manufacturer, over the entire life of the engine.
[Reference: 40 CFR §60.4206]

(10) The diesel fuel used in the emergency generator and the fire water pump must meet the following specifications:

(a) Sulfur content – 15 ppm maximum

(b) Cetane index or aromatic content as follows:
(i) A minimum cetane index of 40; or
(ii) A maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]

(11) The Permittee must operate and maintain the diesel fired emergency generator and the diesel fired fire water pump according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. The Permittee may only change those settings that are permitted by the manufacturer. The Permittee must meet the requirements of 40 CFR Part 89.
[Reference: 40 CFR §60.4211(a)]

BACT/LAER Requirements

(12) The nominal 1,115 kW emergency diesel generator shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the emergency generator:

(a) Combined NOx and NMHC emission shall not exceed 6.4 grams per kilowatt hour (g/kW-hr);

(b) CO emissions shall not exceed 3.5 g/kW-hr; and

(c) PM emissions shall each not exceed 0.2 g/kW-hr.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]

(13) The nominal 220 hp fire water pump engine shall be designed to meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including emission limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of

ultra low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the fire water pump:

(a) Combined NOx and NMHC emissions shall not exceed 4.0 grams per kilowatt hour (g/kW-hr);

(b) CO emissions shall not exceed 3.5 g/kW-hr; and

(c) PM emissions shall each not exceed 0.2 g/kW-hr.
[CPCN CPV Maryland Case 9437, Appendix A, Condition A-23]

(14) For the emergency generator and the fire water pump, the Permittee shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-42 and A-43]**

(15) The emergency generator and fire water pump engine shall each be fueled with ultra-low sulfur diesel fuel with a sulfur content not to exceed 15 ppmw. **[Reference: 40 CFR §60.4207 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-44]**

Compliance Demonstration:

Testing Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Monitoring Requirements:

The Permittee shall following the monitoring requirements in Section 4.4.C.

Record Keeping Requirements:

The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

(a) A log of emergency generator operation indicating the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.).

(b) For each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of

delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510.

(c) The certifications of compliance or manufacturer engine test data for the diesel fired emergency generator and the diesel fired fire water pump required by 40 CFR §60.4211 and §60.4214(b).

Reporting Requirements:

(1) The Permittee shall provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ultra low sulfur diesel (ULSD) is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information:

(a) The name of the fuel oil supplier; and

(b) The sulfur content of the fuel oil.
[Reference: CPCN CPV Maryland Case 9437, Appendix A Condition A-53]

(2) The Permittee shall provide the Department with the manufacturer, make, and model, vendor specifications, or other details requested by the Department upon selection of auxiliary sources (emergency generator and fire water pump engine). **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-54**

Emissions Unit Number(s) – EU-9

MDE Reg. No. 017-0235-9-0160

One (1) ten-cell wet mechanical draft cooling tower controlled by drift eliminators.

Applicable Standards/Limits:

A. **Control of Visible Emissions**
Visible Emissions Standards. – [COMAR 26.11.06.02C(1)]
"In Areas I, II, V, VI a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is greater than 20 percent opacity."

Compliance Demonstration:

Testing Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Monitoring Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section IV, 1.4.(1) of the Part 70 (Title V) Operating Permit.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section IV, 1.5.(1) of the Part 70 (Title V) Operating Permit.

B. Operational Limits

(1) The cooling tower shall be designed with high efficiency drift eliminators to achieve a drift loss not to exceed 0.0005% of recirculating water flow. Not less than once per calendar year, the owner/operator shall conduct a complete inspection of the tower to ensure the drift eliminators are clean and in good working condition. This inspection report shall be kept on-site and a copy provided to the Department upon request. **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-26]**

(2) For purposes of calculating total facility-wide $PM_{2.5}$ emissions for the St. Charles Project, the $PM_{2.5}$ emissions from the cooling tower shall be 0.15 tons per month. **[Reference: CPCN CPV Case 9437, Appendix A, Condition A-27(b)]**

Compliance Demonstration:

Testing Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Monitoring Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section IV, 1.4.(1) of the Part 70 (Title V) Operating Permit.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section IV, 1.5.(1) of the Part 70 (Title V) Operating Permit.

Emissions Unit Number(s) – EU-10

MDE Reg. No. 9-0191, 9-0194, 9-0195, and 9-0196

Four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts.

Applicable Standards/Limits:

A. **Control of Visible Emissions**
Visible Emissions Stationary Internal Combustion Engines Powered Equipment. – [COMAR 26.11.09.05E(2) through (4)]
(2) Emissions During Idle Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
(3) Emissions During Operating Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity."
(4) Exceptions.

(a) "Section E(2) of this regulation 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."
(b) "Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
  (i) Engines that are idled continuously when not in service: 30 minutes;
  (ii) All other engines: 15 minutes."
(c) "Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration:

Testing Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Monitoring Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section IV, 1.4.(1) of the Part 70 (Title V) Operating Permit.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section IV, 1.5.(1) of the Part 70 (Title V) Operating Permit.

B. Control of Sulfur Oxides from Fuel Burning Equipment. – [COMAR 26.11.09.07A(1)(c)]

"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: (1) In Areas I, II, V, and VI: (c) Distillate fuel oils, 0.3 percent."

Compliance Demonstration:

Testing Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Monitoring Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section IV, 1.4.(1) of the Part 70 (Title V) Operating Permit.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section IV, 1.5.(1) of the Part 70 (Title V) Operating Permit.

C. Operational Limits

(1) The units are subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and recordkeeping requirements (40 CFR §60.4200 *et seq.*), and related applicable provisions of 40 CFR §60.7 and 40 CFR §60.8. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(d)]**

(2) The units are subject to the NESHAP for Stationary Reciprocating Internal Combustions Engines and the associated fuel, monitoring, compliance, testing, notification, reporting, and record keeping requirements. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-19(e)]**

40 CFR Part 60, Subpart IIII Requirements

Conditions (3) through (8) state the Subpart IIII Requirements that are applicable to the four (4) diesel fired emergency generators sets to be used for black start.

(3) The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra-low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to each black start emergency generator:

(a) Combined NOx and non-methane hydrocarbons (NMHC) emissions shall not exceed 6.4 grams per kilowatt-hour (g/kw-hr);

(b) CO emissions shall not exceed 3.5 g/kw-hr;

(c) PM emissions shall each not exceed 0.20 g/kw-hr; and
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]

(4) There is no time limit on the use of the four (4) diesel fired emergency generators sets to be used for black start, in emergency situations. **[Reference: 40 CFR §60.4211(f)(1)]**

(5) The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Reference: 40 CFR §60.4211(f)(2)(i)]**

Note: Effective May 2, 2016, emergency generators are no longer allowed to participate for emergency demand response operation unless they meet the requirements of a non-emergency generator of the same model year. This engine does not meet the standards for a non-emergency generator, therefore, operation for emergency demand response or during periods of voltage deviation are not permitted.

(6) The Permittee must operate and maintain the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500

kilowatts, that achieves the emission standards as required in 40 CFR §60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.
[Reference: 40 CFR §60.4206]

(7) The diesel fuel used in the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, must meet the following specifications:

(a) Sulfur content – 15 ppm maximum

(b) Cetane index or aromatic content as follows:
(i) A minimum cetane index of 40; or
(ii) A maximum aromatic content of 35 volume percent.
[Reference: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]

(8) The Permittee must operate and maintain the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. The Permittee may only change those settings that are permitted by the manufacturer. The Permittee must meet the requirements of 40 CFR Part 89.
[Reference: 40 CFR §60.4211(a)]

BACT/LAER Requirements

(9) The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall be designed to meet applicable requirements of 40 CFR Part 60, Subpart IIII, including emissions limitations which have also been determined to represent BACT. These emission limitations will be achieved through the exclusive use of ultra-low sulfur diesel fuel and a restriction on hours of operation of 100 hours for any rolling 12-month period for routine maintenance. In addition, the following limitations shall apply to the emergency generator:

(a) Combined NOx and non-methane hydrocarbons (NMHC) emissions shall not exceed 6.4 grams per kilowatt-hour (g/kw-hr);

(b) CO emissions shall not exceed 3.5 g/kw-hr; and

(c) PM emissions shall each not exceed 0.20 g/kw-hr.

[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-22]

(10) To meet LAER, the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts shall be designed so that the combined NOx and non-methane hydrocarbon (NMHC) emissions shall not exceed 6.4 g/kw-hr. These emission limits will be achieved through the exclusive use of ultra-low sulfur fuel and restrictions on hours of operation of 100 hours for any consecutive rolling 12-month period for routine maintenance.
[Reference: CPCN CPV Maryland Case 9437, Appendix A, Condition A-30]

(11) For the four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, the Permittee shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time. **[Reference: CPCN CPV Maryland Case 9437, Appendix A, Conditions A-42]**

The four (4) diesel fired emergency generators sets to be used for black start, each rated at 3,500 kilowatts, shall each be fueled with ultra-low sulfur diesel fuel with a sulfur content not to exceed 15 ppmw.
[Reference: 40 CFR §60.4207 and CPCN CPV Maryland Case 9437, Appendix A, Condition A-44]

Compliance Demonstration:

Testing Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Monitoring Requirements:

The Permittee shall follow the monitoring requirements in Section IV, 1.3.(1) of the Part 70 (Title V) Operating Permit.

Recordkeeping Requirements:

The Permittee shall following the recordkeeping requirements in Section IV, 1.4.(1) of the Part 70 (Title V) Operating Permit.

Reporting Requirements:

The Permittee shall following the reporting requirements in Section IV, 1.5.(1) of the Part 70 (Title V) Operating Permit.

Table A – Emissions Standards for CTs

Table A – Emissions Standards for CTs

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
PM	0.005 lb/MMBtu @ 15% O_2 (filterable only) at all times without duct firing **AND** 0.004 lb/MMBtu @ 15% O_2 (filterable only) at all times with duct firing	BACT	3-hr block average	Conduct performance tests using EPA Reference Method 5 or equivalent approved by the Department	The Permittee shall calculate monthly emissions from the CTs/HRSGs based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack testing to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
$PM_{10}/PM_{2.5}$	0.008 lb/MMBtu @ 15% O_2 (filterable and condensable) at all times without duct firing AND 0.006 lb/MMBtu @ 15% O_2 (filterable and condensable) at all times with duct firing	BACT	Average of three (3) test runs	Conduct performance tests using Test Methods 201A (filterable) and Method 202 (condensable) or equivalent approved by the Department	The Permittee shall calculate monthly emissions from the CTs/HRSGs based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack testing to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
CO	2.0 ppmvd @ 15% O2 with and without duct firing, except during periods of startup and shutdown	BACT	3-hr block average	Conduct performance test using EPA Method 10, or equivalent method approved by the Department	Emissions shall be continuously monitored via CO CEMS. [COMAR 26.11.01.11] The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emission measured using the CEMS to

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					demonstrate compliance with the project wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
CO During Startup and Shutdown	530 lb/event (for rapid response startups), 2,441 lb/event (for conventional startups) and 165 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	BACT	N/A	None required.	Emissions shall be continuously monitored via CO CEMS [COMAR 26.11.01.11]. The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emissions measured using the CEMS to demonstrate compliance with the project wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
GHG (as CO_2e)	7,109 Btu/kWh (gross, HHV) at ISO conditions with CTs operating at full load and no duct firing	BACT	N/A	Initial compliance with the heat rate limitation has been demonstrated using ASME PTC-46 test method.	Continuous compliance with this emission limit will be demonstrated by complying with the 878 lb/MWh (gross) emission limit which is valid during all periods of operation including various ambient temperatures, loads, with and without duct firing and during periods of startup and shutdown.)
GHG (as CO_2e)	2,667,018 tons per year at all times including periods of startup and shutdown, but excluding black start events. (Note: The 12-month rolling GHG limit is a facility-	BACT	12-month rolling average	Initial compliance shall be demonstrated by installing a certified CO_2 CEMS in accordance with the performance specifications of 40 CFR Part 60, Appendix B. The CEMS shall meet the quality	Emissions shall be continuously monitored via CO_2 CEMS or by using Equation G-4 of 40 CFR Part 75, Appendix G. [COMAR 26.11.01.11] Rolling average emissions shall be calculated based on CO_2 CEMS or Equation G-4 data, and summed

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
	wide cap that must include all emissions sources at CPV Maryland St. Charles Energy Center.)			assurance requirements of 40 CFR Part 60, Appendix F. If CO_2 emissions are calculated using Equation G-4 of 40 CFR Part 75, Appendix G in lieu of installing a CO_2 CEMS, initial compliance with CO_2 limits shall be demonstrated by initial certification required per 40 CFR §75.20(g). Fuel flow monitors shall meet the ongoing quality assurance requirements of 40 CFR Part 75, Appendix D.	with N_2O and CH_4 emissions calculated using methodology in 40 CFR Part 98, Subpart C with associated GWP factors to demonstrate compliance with the project-wide emissions limits in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
GHG (as CO_2e)	878 lb/MWh (gross)	BACT	12-month rolling	Install a certified CO_2 CEMS in accordance with 40 CFR §60 Appendix B. In lieu of installing a CO_2 CEMS, CO_2 shall be calculated using Equation G-4 of 40 CFR §75, Appendix G	Monitor CO_2 emissions from each CTs/HRSGs using a certified CO_2 CEMS or calculate CO_2 emissions using 40 CFR §75, Appendix G. The total generation (MW) shall be monitored to calculate the emission rate of CO_2 (lb/MWh) per CT, determined each month by summing the CO_2 emissions for all hours in which a CT /HRSG is operating during the previous 12 months and dividing that value by the sum of the electrical energy output over that same period. (Note: Compliance with this GHG

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					BACT emission limit, during all periods of operation including startup and shutdown, is used as a surrogate for demonstrating compliance with the 7,109 Btu/kWh (gross) emission limit at one specific operating case, i.e ISO conditions, 100% load and no duct firing.)
GHG (as CO_2e)	1,000 lb CO_2/MWh (gross)	NSPS Subpart TTTT [40 CFR §60.5520]	12-month rolling average	Initial compliance shall be demonstrated by installing and certifying a certified CO_2 CEMS to record hourly average CO_2 concentrations as specified in 40 CFR §60.5535. The CEMS shall meet the quality assurance requirements of 40 CPR §75 Appendices A and B. Alternatively, initial compliance shall be demonstrated by measuring hourly fuel flow rates and using this measurement and Equation G-4 in 40 CFR §75 to calculate hourly CO_2 mass emissions.	Emissions shall be continuously monitored via CO_2 CEMS or by using Equation G-4 of 40 CFR §75, Appendix G.
NOx	2.0 ppmvd @ 15% O_2 **AND** 19.7 lb/hr with and without duct firing, except during periods	BACT / LAER	3-hr block average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [COMAR	Emissions shall be continuously monitored via NOx CEMS. [COMAR 26.11.01.11] The Permittee shall calculate monthly emissions from the

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
	of startup and shutdown, and for the designated black start combustion turbine during a black start event.			26.11.01.11]	CTs/HRSGS, based on emissions measured using the CEMS to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
NOx	15 ppmvd at 15% O_2 **OR** 54 ng/J (0.43 lb/MWh) of useful output at all times	NSPS Subpart KKKK [40 CFR §60.4320]	30-day rolling average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [40 CFR §60.4400]	Emissions shall be continuously monitored via NOx CEMS. [40 CFR §60.4340(a) or (b)]
NOx	42 ppm dry volume at 15% O_2, except during periods of startup and shutdown, and for the designated black start combustion turbine during a black start event.	COMAR 26.11.09.08G(2)	1-hr block average	Conduct performance test using EPA Method 7E or equivalent method approved by the Department [COMAR 26.11.01.11]	Emissions shall be continuously monitored via NOx CEMS. [COMAR 26.11.01.11]
NOx During Startup and Shutdown	123 lb/event (for rapid response startups), 323 lb/event (for conventional startups), and 11 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	BACT and LAER	N/A	None required.	Emissions shall be continuously monitored via NOx CEMS. The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on emissions measured using the CEMS to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
VOC	1.0 ppmvd @ 15% O_2 **AND** 2.9 lb/hr without duct firing, excluding periods of startup and shutdown, and for the designated black start combustion turbine during a black start event. 2.0 ppmvd @ 15% O_2 **AND** 6.9 lb/hr with duct firing excluding periods of startup and shutdown, and for the designated black start combustion turbine during a black start event.	LAER	3-hr block average	Conduct performance test using EPA Method 18, 25A or equivalent method approved by the Department	CO CEMS data shall be used as a surrogate for VOC emissions. A correlation shall be developed between CO and VOC emissions based on an initial stack test. The approach to establish the correlation shall be included in the parametric monitoring plan provided to the Department per Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33). The emission correlation shall be verified annually by stack test or a new correlation established. Monthly emissions during normal operation shall be calculated using the VOC emission rates and monthly fuel throughput rates to the CTs/HRSGs.
VOC During Startup and Shutdown	30 lb/event (for rapid response startups); 343 lb/event (for conventional startups); and 40 lb/event (for all shutdowns) *Limits are for each CT/HRSG*	LAER	N/A	None required.	The Permittee shall track the type, number, and duration of each startup and shutdown event. CO CEMS data shall be used as a surrogate for VOC emissions. A correlation factor developed by taking the ratio of CO and VOC SUSD emissions provided by GE specifications shall be used to determine VOC emissions during SUSD events. Specifically, CO

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					emissions measured via CEMS during rapid response startups, conventional startups, and all shutdowns shall be divided by 17.7, 7.12, and 3.93, respectively, to determine VOC emissions. The monthly startup and shutdown VOC emissions shall be added to the VOC emissions from non-startup and shutdown events to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
SO_2	110 ng/J (0.90 lb/MWh) gross output SO2 emissions **OR** No fuel burned with total potential sulfur emissions in excess of 26 ng/J (0.060 lb/MMBtu) heat input	40 CFR Part 60, Subpart KKKK [40 CFR §60.4330]	At all times.	Conduct performance tests per 40 CFR §60.4415	Conduct performance tests. [40 CFR §60.4415] **OR** Fuel quality characteristics or fuel sampling data. [40 CFR §61.4365]
Visible Emissions	20% opacity	COMAR 26.11.09.05A(1)	At all times, except as provided in COMAR 26.11.09.05A(3).	Initial EPA Reference Method 9 for 1 hour within 180 days of initial startup. [COMAR 26.11.09.05A(1) and (5) and 40 CFR Part 60, Appendix A]	Visible observations in accordance with EPA Reference Method 22 at least once each calendar quarter to verify that there are no visible emissions during operation. If visible emissions are observed, then inspect combustion control system, perform necessary adjustments and / or repairs within 48 hours, and document in writing

Pollutant	Emission Limit (not to exceed)	Underlying Requirement	Averaging Period	Performance Test	Continuous Compliance Demonstration Method
					the results of inspection, adjustments and or repairs. After 48 hours, if the required adjustments and / or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for at least one hour until corrective actions have reduced the visible emissions to less than 20 percent opacity. [COMAR 26.11.02.02H]
SAM	2.2 lb/hr without duct firing at all times and 2.5 lb/hr with duct firing at all times	BACT	3-hour block average	Conduct a performance test using EPA Method 8 or equivalent method approved by the Department.	The Permittee shall calculate monthly emissions from the CTs/HRSGs, based on fuel throughput rate to the CTs/HRSGs and emission factors developed during the most recent stack test to demonstrate compliance with the project-wide emissions limit in Part C(4) (CPCN CPV Maryland Case 9437, Appendix A, Condition A-33).
Ammonia Slip	5 ppmvd @ 15% O_2	COMAR 26.11.02.02H	24-hr block average	Initial stack testing using EPA Method CTM-027 or equivalent method approved by the Department.	Performance stack tests at least once every five (5) years using EPA Method CTM-027 or equivalent method approved by the Department.

[Reference: CPCN CPV Maryland Case 9437, Appendix A, Table A]

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) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(2) ✓ 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;

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

(a) No. 1 Storage of lubricating oils;

(b) No. 1 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) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

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

(6) ✓ Laboratory fume hoods and vents;

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

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

1. Applicable Regulations:

   (A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (B) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Operating Conditions:
   (Note: Generally these conditions impose standards or limitations that are necessary to assure compliance with Maryland's Air Toxics Regulations.)

3. Testing and Monitoring:

4. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (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 requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.