



Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary

Mr. Paul Ostberg, Environmental Manager
Calpine Mid-Atlantic Generation, LLC
6 Hillman Drive, Suite 201
Chadds Ford, PA 19317

JAN 14 2025

Dear Mr. Ostberg:

Re: Renewal Part 70/ Title V Operating Permit 24-039-0017

Enclosed, please find the Renewal Part 70/Title V Operating Permit and Fact Sheet for the Crisfield Energy Center located in Somerset County, MD. The Permit will expire on October 31, 2029.

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 Ms. Janay Mendez, at Janay.mendez@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)

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

Part 70
 Operating Permit

PERMIT NO. 24-039-0017

DATE ISSUED JAN 14 2025

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE October 31, 2029

LEGAL OWNER & ADDRESS

Calpine Mid-Atlantic Generation, LLC
6 Hillman Drive, Suite 201
Chadds Ford, PA 19317
Attn: Mr. Paul Ostberg, Environmental Manager

SITE

Crisfield Energy Center
4079 Crisfield Hwy., Route 413
Crisfield, MD 21817
AI # 29288

SOURCE DESCRIPTION

A Peaking Electric Power Generating Station.

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

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Program Manager

Director, Air and Radiation Administration

**CALPINE MID-ATLANTIC GENERATION, LLC CRISFIELD ENERGY CENTER
 4079 CRISFIELD HIGHWAY, ROUTE 413
 CRISFIELD, MARYLAND 21817
 PART 70 OPERATING PERMIT NO. 24-039-0017**

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Calpine Mid-Atlantic Generation, LLC operates the Crisfield Energy Center located at 4079 Crisfield Highway in Somerset County. The Primary SIC for this plant is 4911. The Crisfield Energy Center consists of four-(4) identical internal combustion engines, each nominally rated at 26 MMBtu/hr heat input (2.5 MW). Each unit is capable of operating on only No. 2 fuel oil.

2. FACILITY INVENTORY LIST

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|------------------------------|--------------------------------------|--|-----------------------------|
| C1 | 9-0021 | Four (4) General Motors – Electro-Motive Division, nominal 26 MMBtu/hour (2.5MW) internal combustion engines, fired with No. 2 fuel oil only | May 1968 |
| C2 | 9-0022 | | |
| C3 | 9-0023 | | |
| C4 | 9-0024 | | |

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SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

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

2. ACRONYMS

| | |
|------------------|--|
| ARA | Air and Radiation Administration |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEM | Continuous Emissions Monitor |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMAR | Code of Maryland Regulations |
| EPA | United States Environmental Protection Agency |
| FR | Federal Register |
| gr | grains |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| MDE | Maryland Department of the Environment |
| MVAC | Motor Vehicle Air Conditioner |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| OTR | Ozone Transport Region |
| PM | Particulate Matter |
| PM ₁₀ | Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less |
| ppm | parts per million |
| ppb | parts per billion |
| PSD | Prevention of Significant Deterioration |
| PTC | Permit to construct. |
| PTO | Permit to operate (State) |
| SIC | Standard Industrial Classification |
| SO ₂ | Sulfur Dioxide |

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| | |
|-----|----------------------------|
| 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.

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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;

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- 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

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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

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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:

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- (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:

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- (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.

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- 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;

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- (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]

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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.

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- 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

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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.

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- 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;

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- 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.

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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

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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

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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;

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- 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.

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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;

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- b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;
- c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;
- d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.
- e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

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

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

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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.

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- 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.

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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

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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;

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- 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.

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- 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

Not applicable

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SECTION IV PLANT SPECIFIC CONDITIONS

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

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

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

| Table IV – 1 | |
|---------------------|---|
| 1.0 | <p><u>Emissions Unit Number(s): C1, C2, C3, & C4 - Internal Combustion Engines</u></p> <p>C1, C2, C3 & C4 - Four (4) General Motors – Electro-Motive Division, 26 MMBtu/hr (2.5 MW) internal combustion engines, fired on No. 2 fuel oil only. [9-0021 thru 9-0024]</p> <p>Catalytic converters were installed to control carbon monoxide emissions from the internal combustion engines.</p> |

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Table IV – 1

| | |
|------------|---|
| 1.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> <u>COMAR 26.11.09.05E. - Stationary Internal Combustion Engine Powered Equipment.</u> "(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."</p> <p>B. <u>Control of Sulfur Oxides</u> <u>COMAR 26.11.09.07 - Control of Sulfur Oxides From Fuel Burning Equipment.</u> <u>"A. Sulfur Content Limitations for Fuel.</u> 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."</p> <p><u>§63.6604 - What fuel requirements must I meet if I own or operate an existing stationary CI RICE?</u> "(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. "</p> <p><u>40 CFR 1090.305 - What are the standards and marker requirements for NRLM diesel fuel and ECA marine fuel.</u></p> |
|------------|---|

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Table IV – 1

“(b) Beginning June 1, 2010. Except as otherwise specifically provided in this subpart, all NR and LM diesel fuel is subject to the following per-gallon standards:

(1) Sulfur content.

(i) 15 ppm maximum for NR diesel fuel.

(ii) 500 ppm maximum for LM diesel fuel.

(2) Cetane index or aromatic content, as follows:

(i) A minimum cetane index of 40; or

(ii) A maximum aromatic content of 35 volume percent.”

C. Control of Nitrogen Oxides

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

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

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

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

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

(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and

(e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.”

Note: COMAR 26.11.09.08B(5)(a) states that “for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation”.

D. Operational Limit

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

E. Control of Carbon Monoxide

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Table IV – 1

National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines (RICE).

§63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

Table 2d to Subpart ZZZZ of Part 63 is revised to read as follows:

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| For each | You must meet the following requirement, except during periods of startup | During periods of startup, you must |
|--|---|-------------------------------------|
| 3. Non-Emergency, non-black start CI stationary RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or | Not applicable |
| | b. Reduce CO emissions by 70 percent or more. | Not applicable |

1.2 Testing Requirements:

A. Control of Visible Emissions
See Monitoring Requirements

B. Control of Sulfur Oxides
See Monitoring Requirements

C. Control of Nitrogen Oxides
See Monitoring Requirements

D. Operational Limit
See Reporting Requirements.

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| Table IV – 1 | |
|--------------|--|
| | <p>E. <u>Control of Carbon Monoxide</u> The Permittee must conduct subsequent performance test every 8760 operating hours or 3 years whichever comes first. [Reference: §63.6612, Table 4 & §63.6615, Table 3]</p> |
| 1.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall demonstrate compliance with the opacity limitation by conducting an annual EPA Method 9 observation for 15 minutes per unit during non-idle mode. It will be acceptable to observe all four stacks in succession during the 15-second observation intervals, as allowed in Method 9. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> For internal combustion engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.03.06C].</p> <p>D. <u>Operational Limit.</u> See Reporting Requirements.</p> <p>E. <u>Control of Carbon Monoxide</u> The Permittee shall install a continuous parameter monitoring system (CPMS) to continuously monitor catalyst inlet temperature. The CPMS must collect data at least once every 15 minutes with data reduced to 4-hour rolling averages. The temperature sensor must have a minimum tolerance of 2.8°C (5°F) or 1% of the measurement range, whichever is larger. Conduct CPMS audit at least annually. Measure and record the pressure drop across the catalyst once per month. Prepare a site-specific monitoring plan. [Reference: §63.6625, §63.6630 & §63.6640]</p> |
| 1.4 | <p><u>Record Keeping Requirements:</u> <u>Note:</u> All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> |

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Table IV – 1

| | |
|------------|---|
| | <p>A. <u>Control of Visible Emissions</u> The Permittee shall keep a copy of the visible emissions readings and the certification of the visible emission reader(s) for at least five years on site and make it available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall maintain records of fuel supplier’s certification and shall make records available to the Department upon request. [Reference: COMAR 26.11.09.07C].</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall: (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. [Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C]. (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C]. (3) Retain records of hours of operation on a monthly basis for all internal combustion engines. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. [Reference: COMAR 26.11.03.06C].</p> <p>D. <u>Operational Limit</u>. See Reporting Requirements.</p> <p>E. <u>Control of Carbon Monoxide</u> The Permittee shall keep the following records for at least five (5) years: ➤ Records of the catalyst pressure drop and the catalyst inlet temperature during the initial performance test. ➤ Copies of submitted notifications, occurrence and duration of each malfunction, performance tests, required maintenance, actions taken during periods of malfunction to minimize air emissions, previous version of the CPMS performance evaluation plan, catalyst inlet temperature, 4-hour rolling averages of catalyst inlet temperature, pressure drops across catalyst. [Reference: §63.6612, §63.6625 & §63.6655]</p> |
| 1.5 | <u>Reporting Requirements:</u> |

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Table IV – 1

A. Control of Visible Emissions

See Record Keeping Requirements.

B. Control of Sulfur Oxides

The Permittee shall report fuel supplier certification to the Department upon request. [Reference: COMAR 26.11.09.07C].

C. Control of Nitrogen Oxides

The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]

D. Operational Limit.

The Permittee shall report the type of fuel used in the engines to the Department in the annual emission certification report due on April 1 of each year. [Reference: COMAR 26.11.02.19C]

E. Control of Carbon Monoxide

The Permittee shall submit the following:

- Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2). [Reference: §63.6645]
- Submit a compliance report semiannually according to the requirements in §63.6650(a).

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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) Containers, reservoirs, or tanks used exclusively for:
- (a) No. 1 Storage of lubricating oils;
 - (b) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

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SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

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

Applicable Regulations:

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

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

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BACKGROUND

Calpine Mid-Atlantic Generation, LLC operates the Crisfield Energy Center located at 4079 Crisfield Highway in Somerset County. The Primary SIC for this plant is 4911. The Crisfield Energy Center consists of four-(4) identical internal combustion engines, each nominally rated at 26 MMBtu/hr. heat input (2.5 MW). Each unit is capable of operating on only No. 2 fuel oil. The engines are used during peak electric demand periods that usually occur in the summer and winter months.

The following table summarizes the actual emissions from Crisfield Energy Center based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

| Year | NO _x (TPY) | SO _x (TPY) | PM ₁₀ /PM _{2.5} (TPY) | CO (TPY) | VOC (TPY) | Total HAP (TPY) |
|------|--------------------------|--------------------------|--|-------------|--------------|-----------------------|
| 2022 | 40.98 | 0.011 | 0.63/0.60 | 0.03 | 1.15 | 0.011 |
| 2021 | 23.07 | 0.0046 | 0.35/0.31 | 0.017 | 0.65 | 0.0061 |
| 2020 | 5.5 | 0.009 | 0.086/0.081 | 0.0041 | 0.16 | 0.0015 |
| 2019 | 10.99 | 0.0043 | 0.36/0.34 | 2.92 | 0.31 | 0.0071 |
| 2018 | 83.4 | 0.03 | 2.77/2.66 | 22.12 | 2.34 | 0.022 |

Somerset County is located in the Ozone Transport Region. The major source threshold for triggering Title V permitting requirements in Somerset county is 50 tons per year for VOC, 100 tons for NO_x, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS. Since the potential, NO_x emission from the facility are greater than the major source threshold, Crisfield Energy Center is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

On October 30, 2023, the Department received the Crisfield Energy Center’s Part 70-permit renewal application, which was submitted by Calpine Mid-Atlantic Generation, LLC. An administrative completeness review was conducted and the application was deemed to be complete. The completeness determination letter was sent on November 20, 2023 granting the facility an application shield.

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CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The following changes and/or modifications have been incorporated into the renewal Title V – Part 70 Operating Permit for the Crisfield Energy Center:

No changes since the last renewal.

New Source Performance Standards (NSPS) – 40 CFR Part 60

The internal combustion engines are not subject to the requirements of 40 CFR Part 60, Subpart IIII for Stationary Compression Ignition Internal Combustion Engines. These engines were manufactured and installed prior to April 1, 2006

National Emission Standard for Hazardous Air Pollutants (NESHAP) – 40 CFR Part 63

The Crisfield Energy Center is not a major HAP emissions source. Instead it is an area HAP emission source and is subject to the following MACT:

Subpart ZZZZ — Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions:

COMPLIANCE ASSURANCE MONITORING (CAM)

Calpine Mid-Atlantic Generation LLC conducted a Compliance Assurance Monitoring (CAM) analysis for the Crisfield Energy Center and determined that the facility is not subject to the (CAM) Rule 40 CFR Subpart 64. Emission sources that are subject to NESHAP or NSPS emission limits or standards promulgated after November 15, 1990 are exempt from CAM requirements per 40 CFR 64.2(b)(i).

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 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

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exempt from CAM. Applicability determinations are made on a pollutant-by-pollutant basis for each emission unit.

Units C1-C4 is equipped with catalytic converters for CO control to achieve the emission rates required by NESHAP Subpart ZZZZ. As the emission rates for Subpart ZZZZ were promulgated by EPA after November 15, 1990, under Section 112 of the Clean Air Act, CAM requirements do not apply to these catalytic converters.

GREENHOUSE GAS (GHG) EMISSIONS

Crisfield Energy Center emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from internal combustion engines contained within the facility premises applicable to Crisfield Energy Center. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, emission certifications reports for the years 2020, 2021, and 2022, showed that Crisfield Energy Center is not a major source (threshold: 100,000tpy CO₂e) for GHG's (see Table 2 shown below). The Permittee shall quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

The following table summarizes the actual emissions from Crisfield Energy Center based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

| GHG | Conversion factor | 2020 tpy CO ₂ e | 2021 tpy CO ₂ e | 2022 tpy CO ₂ e |
|--------------------------------|-------------------|----------------------------|----------------------------|----------------------------|
| Carbon dioxide CO ₂ | 1 | 284.76 | 1,187.05 | 2,100.55 |
| Methane CH ₄ | 0.065 | 0.001 | 0.004 | 0.0065 |
| Nitrous Oxide N ₂ O | 298 | NR | NR | NR |
| Total GHG CO ₂ e | | 1,328.478 | 1,187.05 | 2,100.56 |

EMISSION UNIT IDENTIFICATION

Crisfield Energy Center has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

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Table 3: Emission Unit Identification

| Emission s Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|---------------------------------------|--|---|---------------------------------|
| C1 | 9-0021 | Four (4) General Motors – Electro-Motive Division, nominal 26 MMBtu/hour (2.5MW) internal combustion engines, fired with No. 2 fuel oil only | May 1968 |
| C2 | 9-0022 | | |
| C3 | 9-0023 | | |
| C4 | 9-0024 | | |

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

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keeping, and reporting requirements. The demonstration may include one or more of these methods.

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

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

**REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE
METHODOLOGY**

Emission Unit(s): C1, C2, C3 & C4: Internal Combustion Engines

C1, C2, C3 & C4 - Four (4) General Motors – Electro-Motive Division, nominal 26 MMBtu/hr. (2.5 MW) internal combustion engines, fired on No. 2 fuel oil only. [9-0021 thru 9-0024]. Catalytic converters were installed to control carbon monoxide emissions from the internal combustion engines.

The four (4) internal combustion engines are not subject to the requirements of NSPS Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The engines were manufactured and installed prior to April 1, 2006.

The four (4) internal combustion engines are subject to the requirements of NESHAP ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The facility is an area source of HAP and the engines were manufactured and installed prior to June 12, 2006.

Compliance Status

Full compliance inspection conducted on July 6, 2022. None of the units were operating at the time of inspection due to limited demand. At the time of the July 2022 inspection, the units operated about 50 hours total through June. The units operated 545 hours in 2021. Logbooks are kept for each engine detailing maintenance and combustion optimization activities conducted.

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The annual Method 9 observations were conducted on December 20, 2023 on all four engines resulting visible emissions between 5% - 15 %.

Per the July 6, 2022 inspection report, the last delivery of Ultra Low Sulfur Diesel was in February 2022. A sample was taken after the delivery and it showed a sulfur content of 7.6 ppm.

Combustion analysis for each engine was not conducted in 2021 due to low hours of operation. The units operated between 35-51 days and between 99-153 hours.

The initial CO MACT stack testing was performed on the units October 12, 2013. Subsequent (every 3 years or 8760 hours) CO MACT stack testing was conducted on July 15 & 18, 2016 (C1 & C3) and July 28, 2016 (C2 & C4). The most recent testing was completed on October 11-12, 2022. The results of this test are as follows:

| | CO (ppm) | % Reduction | Catalyst Temp (°F) | Catalyst ΔP | Limits |
|----|----------|-------------|--------------------|-------------|---|
| C1 | 1.7 | 97 | 706 | 7.9" | 23 ppm CO or 70% reduction. Catalyst temp range: 450 – 1350 °F. Catalyst Δp: ±2" from stack test results. |
| C2 | 1.3 | 98 | 693 | 6.6" | |
| C3 | 1.4 | 97 | 690 | 6.6" | |
| C4 | 1.6 | 98 | 701 | 7.7" | |

The results show that all units meet both the CO emission limit and the percent reduction limit.

The catalyst records are monitored continuously and records once per minute. These values are compiled on spreadsheet and the data reduced to the required 4-hr rolling averages. Maintenance records show that the units undergo regular maintenance and at least one annual inspection.

Applicable Standards and Limits

A. Control of Visible Emissions

COMAR 26.11.09.05E. - Stationary Internal Combustion Engine Powered Equipment.

"(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.

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- (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

The Permittee shall demonstrate compliance with the opacity limitation by conducting an annual EPA Method 9 observation for 15 minutes per unit during non-idle mode. It will be acceptable to observe all four stacks in succession during the 15-second observation intervals, as allowed in Method 9. The Permittee shall keep a copy of the visible emissions readings and the certification of the visible emission reader(s) for at least five years on site and make available to the Department upon request. [Reference: **COMAR 26.11.03.06C**]

B. Control of Sulfur Oxides

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

"**A. Sulfur Content Limitations for Fuel.** A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:

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

§63.6604 - What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

"(a) If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel. "

40 CFR 1090.305 - What are the standards and marker requirements for NRLM diesel fuel and ECA marine fuel

"(b) Beginning June 1, 2010. Except as otherwise specifically provided in this subpart, all NR and LM diesel fuel is subject to the following per-gallon standards:

- (1) Sulfur content.
 - (i) 15 ppm maximum for NR diesel fuel.

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- (ii) 500 ppm maximum for LM diesel fuel.
- (2) Cetane index or aromatic content, as follows:
 - (i) A minimum cetane index of 40; or
 - (ii) A maximum aromatic content of 35 volume percent.”

Compliance Demonstration

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

[Reference: COMAR 26.11.03.06C] The Permittee shall maintain records of fuel supplier’s certification and shall make records available to the Department upon request. The Permittee shall report fuel supplier certification to the Department upon request. **[Reference: COMAR 26.11.09.07C].**

Rationale for Periodic Monitoring: This strategy to certify sulfur content in oil is similar to the requirements for boilers under New Source Performance Standards.

C. Control of Nitrogen Oxides

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

- "(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
- (a) Provide certification of the capacity factor of the equipment to the Department in writing;
 - (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
 - (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

Note: COMAR 26.11.09.08B(5)(a) states that “for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation”.

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Compliance Demonstration

For internal combustion engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.03.06C].

The Permittee shall:

- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. [Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].
- (3) Retain records of hours of operation on a monthly basis for all internal combustion engines. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period. [Reference: COMAR 26.11.03.06C].

The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]

Discussion: Capacity factors

The engines at Crisfield Energy Center always operate with a capacity factor less than 15% (2.85% in 2022 based on the annual gross generation). The hours of operation are managed by economic dispatch from the PJM interconnector grid. Crisfield Energy Center is not able to unilaterally decide to operate an engine and the cost to generate electricity by these engines also prohibits the units from running with any frequency except for times of peak demands or emergencies. These engines will never operate with a capacity factor greater than 15% unless there is a PJM grid emergency with possibility of brown outs or worse.

D. Operational Limit

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

Compliance Demonstration

The Permittee shall report the type of fuel used in the engines to the Department in the annual emission certification report due on April 1 of each year. [Reference: COMAR 26.11.02.19C]

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E. Control of Carbon Monoxide

National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A and ZZZZ for Reciprocating Internal Combustion Engines (RICE).

§63.6603 - What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.

Table 2d to Subpart ZZZZ of Part 63 is revised to read as follows:
 As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| For each | You must meet the following requirement, except during periods of startup | During periods of startup you must |
|--|---|------------------------------------|
| 3. Non-Emergency, non-black start CI stationary RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or | Not applicable |
| | b. Reduce CO emissions by 70 percent or more. | Not applicable |

Compliance Demonstration

The Permittee must conduct subsequent performance test every 8760 operating hours or 3 years whichever comes first. **[Reference: §63.6612, Table 4 & §63.6615, Table 3]**

The Permittee shall install a continuous parameter monitoring system (CPMS) to continuously monitor catalyst inlet temperature. The CPMS must collect data at least once every 15 minutes with data reduced to 4-hour rolling averages. The temperature sensor must have a minimum tolerance of 2.8°C (5°F) or 1% of the measurement range, whichever is larger. Conduct CPMS audit at least annually. Measure and record the pressure drop across the catalyst once per month. Prepare a site-specific monitoring plan. **[Reference: §63.6625, §63.6630 & §63.6640]**

The Permittee shall keep the following records for at least five (5) years:

- Records of the catalyst pressure drop and the catalyst inlet temperature during the initial performance test.

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- Copies of submitted notifications, occurrence and duration of each malfunction, performance tests, required maintenance, actions taken during periods of malfunction to minimize air emissions, previous version of the CPMS performance evaluation plan, catalyst inlet temperature, 4-hour rolling averages of catalyst inlet temperature, pressure drops across catalyst.

[Reference: §63.6612, §63.6625 & §63.6655]

The Permittee shall submit the following:

- Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
- Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[Reference: §63.6645]

- Submit a compliance report semiannually according to the requirements in §63.6650(a).

COMPLIANCE SCHEDULE

Crisfield Energy Center is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Not Applicable.

TITLE VI – OZONE DEPLETING SUBSTANCES

Crisfield Energy Center shall comply with the standards for recycling and emission reductions pursuant to 40 CFR Part 82, Subpart F.

SECTION 112(r) – ACCIDENTAL RELEASE

Crisfield Energy Center is not subject to the requirements of Section 112(r).

CALPINE MID-ATLANTIC GENERATION, LLC CRISFIELD ENERGY CENTER
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PERMIT SHIELD

Crisfield Energy Center did not request a permit shield.

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) Containers, reservoirs, or tanks used exclusively for:
 - (a) No. 1 Storage of lubricating oils;
 - (b) No. 1 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

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STATE ONLY ENFORCEABLE REQUIREMENTS

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

Applicable Regulations:

- (A) **COMAR 26.11.06.08 – Nuisance.**
"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."
- (B) **COMAR 26.11.06.09 - Odors.**
"A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."