



Mr. Peter Welty, Jr.
Superintendent of Operations
Easton Utilities Plant No. 2, Airport Park
8940 Glebe Park Drive
Easton, MD 21601

NOV 1 3 2024

Re: Renewal Part 70/ Title V Operating Permit #24-041-0069

Enclosed, please find the Renewal Part 70/Title V Operating Permit and Fact Sheet for the Easton Utilities Plant No. 2, Airport Park. 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, Lead Engineer 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

PERMIT NO.

State of



Serena McIllwain
Secretary

DEPARTMENT OF THE ENVIRONMENT

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

Construction Permit Part 70

X Operating Permit

24-041-0069 DATE ISSUED

TE ISSUED NOV 1 3 2024

To be paid in accordance PERMIT FEE with COMAR 26.11.02.19B

EXPIRATION DATE

October 31, 2029

LEGAL OWNER & ADDRESS

Easton Utilities Airport Park 201 N. Washington Street Easton, MD 21601 Attn: Mr. Peter F. Welty Jr.

Superintendent of Operations

SITE

Easton Utilities Plant No. 2- Airport Park 8940 Glebe Park Drive Easton, MD 21601 — Talbot County Al# 29392

SOURCE DESCRIPTION

One Peaking Electric Power Station.

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

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Program Manager

Director, Air and Radiation Administration

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Easton Utilities operates this electric generation plant located at 8940 Glebe Park Drive in Talbot County. The primary SIC code for this plant is 4911.

Easton Utilities' Plant 2 consists of six (6) diesel generators with a combined capacity of 28.1-MW and two (2) combustion turbines with a combined capacity of 9.0-MW for a total plant-wide capacity of 37.1-MW. Each unit is capable of burning No.2 fuel oil. The two (2) combustion turbines may also be fired by natural gas. Four (4) of the diesel generator units (#21 thru #24) are also capable of operating on No.6 fuel oil as a primary fuel.

This source has operated historically as a peaking station. Easton Utilities operate the generators when the utility can generate electricity at a lower cost than the cost to purchase electricity on the PJM grid. The engines typically operate a few hundred hours a year and rarely over 1,000-hours.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
201	9-0037	One (1) Caterpillar 3516 diesel engine powered generator rated at 1,500-kW	5/1995
202	9-0038	One (1) Caterpillar 3516 diesel engine powered generator rated at 1,500-kW	5/1995
203	4-0101	One (1) Solar Taurus 60 Combustion turbine powered generator rated at 4.5-MW	11/2004
204	4-0102	One (1) Solar Taurus 60 Combustion turbine powered generator rated at 4.5-MW	11/2004
21	9-0033	One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW	3/1978
22	9-0034	One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW	3/1978
23	9-0035	One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW	6/1989
24	9-0036	One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW	6/1989

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

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

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10
	micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide

TAP Toxic Air Pollutant

tpy tons per year
VE Visible Emissions

VOC Volatile Organic Compounds

3. EFFECTIVE DATE

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

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

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

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

5. PERMIT RENEWAL

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

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

The Permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

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

7. PERMIT ACTIONS

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

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

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

- a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;
- b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

- c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or
- d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

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

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

[COMAR 26.11.03.20B]

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

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

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

11. REVISION OF PART 70 PERMITS - GENERAL CONDITIONS

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

- a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.
- b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to

the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

- c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.
- d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

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

- a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.
- b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so violates 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:
 - 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,
 - 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:
 - 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;
- 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;
- 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;
- 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 <u>Section VI – State-only Enforceable Conditions</u>:

 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;

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

5. ACCIDENTAL RELEASE PROVISIONS

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

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

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

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

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

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

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

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

- a. 40 CFR 60, appendix A
- b. 40 CFR 51, appendix M
- c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

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

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

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - 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;
- 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;
- 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:

- 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

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

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

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

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

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1.0 Emissions Unit Number(s): Combustion Turbines (CTs)

Unit 203: Solar Turbines Inc. Model Taurus Combustion Turbine rated at 4.5 MW (43-MMBtu/hr.) [4-0101]

Unit 204: Solar Turbines Inc. Model Taurus Combustion Turbine rated at 4.5 MW (43-MMBtu/hr.) [4-0102]

These CTs are capable of firing on distillate (No.2 fuel oil) or natural gas.

1.1 | Applicable Standards/Limits:

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

- A. Fuel Burning Equipment.
- "(1) Areas I, II, V, and VI. 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.
- (3) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
- (a) The visible emissions are not greater than 40 percent opacity; and

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

B. Control of Sulfur Oxide Emissions

COMAR 26.11.09.07 – <u>Control of Sulfur Oxides from Fuel burning</u> equipment.

- "A. <u>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."

40 CFR §60.333(b) – "No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw)."

CPCN #8956 issued on September 23, 2003, condition 12. The CTs shall burn No. 2 diesel fuel with sulfur content no greater than 0.05 percent by weight or natural gas.

C. Control of Nitrogen Oxide Emissions

COMAR 26.11.09.08G(1). - 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.

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) Not applicable to combustion turbines, and
- (e) Not applicable to combustion turbines."

40 CFR §60.332 - Standard for nitrogen oxides.

"(2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

 $STD = (0.0150 \times (14.4/Y)) + F$ where:

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

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

 $F = NO_X$ emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(4) If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under §60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NO _x percent by volume)
N ≤ .015	0
0.015 <n≤0.1< td=""><td>0.04 (N)</td></n≤0.1<>	0.04 (N)
0.1 <n≤0.25< td=""><td>0.004 + 0.0067(N-0.1)</td></n≤0.25<>	0.004 + 0.0067(N-0.1)
N >0.25	0.005

Where:

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

CPCN #8956 issued on November 4, 2004, condition 15. The combined emissions from the two CTs shall not exceed the NO_x emission rates of 35 pounds per hour and 27.2 tons per year over any continuous 12-month period (inclusive of startup/shutdown/malfunction).

D. Operational Limits

CPCN #8956 issued on September 23, 2003, condition 13. The combined fuel (No.2 diesel) consumption of the two CTs shall not exceed 1,343,711 gallons (equivalent to 185,580 MMBtu per year fuel flow) for any 12-month period.

CPCN #8956 issued on September 23, 2003, condition 14. The two CTs shall be operated not less than 80 percent load or greater than 93 percent load (excluding start-up and shutdown) unless the Permittee can demonstrate to the satisfaction of ARA that short term emission rates can be achieved if operating beyond the specified load ranges.

1.2 | Testing Requirements:

A. <u>Control of Visible Emissions</u> See Monitoring Requirements.

Table IV - 1

B. Control of Sulfur Oxide Emissions See Monitoring Requirements.

C. Control of Nitrogen Oxide Emissions

If **Unit 203 or Unit 204** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**

NSPS Subpart GG

The Permittee shall use the testing required for the CPCN to determine compliance with the NSPS standard.

The Permittee shall conduct performance testing on at least one of the CTs once during the 5-year term of the permit to demonstrate compliance with the NO_X emission rate. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed date of the test. [Reference: COMAR 26.11.03.06C].

D. <u>Operational Limits</u>See Monitoring Requirements.

1.3 Monitoring Requirements:

A. Control of Visible Emissions

The Permittee shall:

- (1) Properly operate and maintain the combustion turbines in a manner to minimize visible emissions; and
- (2) Perform a visual observation of stack emissions for a 6-minute period once during each calendar quarter. This requirement is waived for any calendar quarter during which a turbine did not operate.

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

- (1) Inspect combustion control system and turbine operations;
- (2) Perform all necessary adjustments and/or repairs to the turbines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

Table IV - 1

B. Control of Sulfur Oxide Emissions

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the 0.05% by weight sulfur content. [Reference: COMAR 26.11.03.06C]

The owner or operator of any stationary gas turbine shall monitor the total sulfur content of the fuel being fired in the turbine as described in 60.335(b)(10) or other methods listed in the regulation. [Reference: 40 CFR §60.334(h)]

NSPS Subpart GG

The owner or operator of any stationary gas turbine shall monitor the total sulfur content of the fuel being fired in the turbine as described in 60.335(b)(10) or other methods listed in the regulation. [Reference: 40 CFR 60.334(h)]

40 CFR §60.334:

- (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
- (2) <u>Sulfur dioxide</u>. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (*i.e.*, daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery

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has been burned, the owner or operator may resume using the asdelivered sampling option.

(iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours and ends on the date and hour of the next valid sample."

C. Control of Nitrogen Oxide Emissions

40 CFR §60.334 - Monitoring of operations.

- (h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of 40 CFR§60.334. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds may be used; and
- (4) For any turbine that commenced construction, reconstruction, or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.
- (i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
- (1) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.
- (2) Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of 40 CFR§60.334, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the

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gaseous fuel shall be determined and recorded once per unit operating day."

D. Operational Limits

The Permittee shall monitor and maintain a record of the load on the turbines. [Reference: COMAR 26.11.03.06C]

1.4 Record Keeping Requirements:

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

A. Control of Visible Emissions

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference: COMAR 26.11.03.06C]

B. Control of Sulfur Oxide Emissions

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)]

NSPS Subpart GG

40 CFR §60.7:

"(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection."

C. Control of Nitrogen Oxide Emissions

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

- (1) Certifications of the capacity factor for each turbine; and
- (2) Results of the combustion analysis.

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[Reference: COMAR 26.11.03.06C]

NSPS Subpart GG

40 CFR §60.7:

"(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection."

D. Operational Limits

The Permittee shall maintain a log of gallons of fuel consumed calculated on a rolling 12-month basis and make available to the Department upon request. [Reference: COMAR 26.11.03.06C]

1.5 Reporting Requirements:

A. Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations.

B. Control of Sulfur Oxide Emissions

The Permittee shall provide fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

NSPS Subpart GG

40 CFR §60.334:

- (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
- (2) <u>Sulfur dioxide</u>. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage

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tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

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

C. Control of Nitrogen Oxide Emissions

The Permittee shall submit the certification of the capacity factor for each turbine to the Department with the annual Title V Compliance Certification Report.

The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

NSPS Subpart GG

40 CFR §60.334:

- (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
- (1) Nitrogen oxides.
- (i) For turbines using water or steam to fuel ratio monitoring:
- (A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous

Table IV - 1

monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.332, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.

- (B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.
- (C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst-case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1).
- (ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.
- (A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
- (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
- §60.7(c) "Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each 6-month period. Written reports of excess emissions shall include the following information:

Table IV - 1

- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report."

The Permittee shall report the results of the performance testing to the Department within 45 days after completion of the test. [Reference: COMAR 26.11.03.06C]

D. Operational Limits

If the Permittee has not demonstrated to the satisfaction of ARA that short term emission rates can be achieved when operating under or beyond 80 and 93 percent of load, the Permittee shall report in the semi-annual monitoring report any periods when a turbine operated under or over the 80 and 93 percent of load restriction. [Reference: COMAR 26.11.03.06C]

Table IV - 2

2.0 Emissions Unit Number(s): Generators

Unit 201: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0037]

Unit 202: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0038]

These units are only capable of operating on distillate (No. 2 fuel oil) and equipped with diesel oxidation catalyst.

Table IV - 2

2.1 | Applicable Standards/Limits:

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine</u> Powered Equipment

- "(2) <u>Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3) <u>Emissions During Operating Mode</u>. 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) 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) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Control of Sulfur Oxides

COMAR 26.11.09.07 – Control of Sulfur Oxides from Fuel burning equipment.

- "A. <u>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. "

C. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department." **COMAR 26.11.09.08G(1)** Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.
- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing;

Table IV - 2

- 2) 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;
- 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;
- 4) 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
- Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

D. Operational Limits

CPCN #8529 issued on July 14, 1994, limits the combined hours of operation for both generators to 1,000 hours per year on a rolling 12-month basis.

E. Control of Hazardous Air Pollutants (HAPs)
See Table IV-5 for HAP Requirements.

2.2 | Testing Requirements:

A. <u>Control of Visible Emissions</u> See Monitoring Requirements.

B. Control of Sulfur Oxide Emissions
See Monitoring Requirements

C. Control of Nitrogen Oxide Emissions

If Unit 201 or Unit 202 operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. [Reference: COMAR 26.11.09.08G]

D. <u>Operational Limits</u>See Record Keeping Requirements.

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAP and stack testing requirements.

Table IV - 2

2.3 | Monitoring Requirements:

A. Control of Visible Emissions

The Permittee shall:

(1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once during each calendar quarter. This requirement is waived for any calendar quarter during which an engine did not operate.

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

- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

B. Control of Sulfur Oxide Emissions

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the 0.3% by weight sulfur content.

[Reference: COMAR 26.11.03.06C]

C. Control of Nitrogen Oxide Emissions

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]

D. Operational Limits

See Record Keeping Requirements.

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAP Requirements.

2.4 Record Keeping Requirements:

Note: All records must be maintained for a period of at least 5 years.

[Reference: COMAR 26.11.03.06C(5)(g)]

Table IV – 2

A. Control of Visible Emissions

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference:_COMAR 26.11.03.06C]

B. Control of Sulfur Oxide Emissions

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)]

C. Control of Nitrogen Oxide Emissions

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

- (1) Certifications of the capacity factor for each engine;
- (2) Results of the combustion analysis; and
- (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility.

[Reference: COMAR 26.11.03.06C]

D. Operational Limits

The Permittee shall maintain a log of hours of operation for each engine calculated on a 12-month rolling basis. [Reference: COMAR 26.11.03.06C]

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAP Requirements.

2.5 Reporting Requirements:

A. Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Sulfur Oxide Emissions

The Permittee shall provide fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

Table IV - 2

C. Control of Nitrogen Oxide Emissions

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report.

The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

D. Operational Limits

The Permittee shall submit total hours of operation for each engine calculated for the 12-month period in the annual emissions certification statement. [Reference: COMAR 26.11.03.06C]

E. Control of Hazardous Air Pollutants (HAPs) See Table IV-5 for HAP Requirements.

Table IV – 3

3.0 Emissions Unit Number(s): Generators

Unit 21: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250 kW (60-MMBtu/hr.) [9-0033]

Unit 22: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW (60-MMBtu/hr.) [9-0034]

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

3.1 Applicable Standards/Limits:

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine</u>
Powered Equipment

- "(2) <u>Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3) <u>Emissions During Operating Mode</u>. 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.

Table IV - 3

- (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
- (b) Section E(2) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Control of Particulate Matter Emissions

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for Total Suspended Particulate Matter (TSP):

For #2 fuel oil - 0.32 grams/sec: and

For #6 fuel oil - 1.45 grams/sec

C. Control of Sulfur Oxides

COMAR 26.11.09.07A - 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."

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (a) which limits the sulfur content in residual (No. 6 fuel oil) to 1.0 percent and 0.3 percent in distillate (No. 2 fuel oil).

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for sulfur dioxide:

For #2 fuel oil - 2.29 grams/sec: and

For #6 fuel oil - 7.75 grams/sec

D. Control of Carbon Monoxide Emissions

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for carbon monoxide:

For #2 fuel oil - 1.26 grams/sec: and

For #6 fuel oil – 1.32 grams/sec

Table IV - 3

E. Control of Nitrogen Oxides

PSD Approval:

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for nitrogen oxides:

For #2 fuel oil - 20.41 grams/sec: and For #6 fuel oil - 21.67 grams/sec

NO_X RACT

COMAR 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department." **COMAR 26.11.09.08G(1)** Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.
- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing:
- 2) 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:
- 3) 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;
- 4) 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
- 5) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.'
- F. Control of Hazardous Air Pollutants (HAPs) See Table IV-5 for HAP Requirements.

3.2 Testing Requirements:

A. <u>Control of Visible Emissions</u> See Monitoring Requirements.

Table IV - 3

- B. <u>Control of Particulate Matter Emissions</u> See Monitoring Requirements.
- C. <u>Control of Sulfur Oxide Emissions</u> See Monitoring Requirements.
- D. Control of Carbon Monoxide Emissions See Monitoring Requirements.

E. Control of Nitrogen Oxide Emissions

If **Unit 21 or Unit 22** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**

F. Control of Hazardous Air Pollutants (HAPs)
See Table IV-5 for HAP and stack testing requirements.

3.3 Monitoring Requirements:

A. Control of Visible Emissions

The Permittee shall:

- (1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once for each calendar quarter. This requirement is waived for any calendar quarter during which an engine does not operate. The Permittee shall perform the following if visible emissions are observed:
- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

B. Control of Particulate Matter Emissions

The Permittee shall perform preventative maintenance to maintain the engines in a manner such that they operate as designed. [Reference: COMAR 26.11.03.06C]

Table IV - 3

C. Control of Sulfur Oxide Emissions

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the sulfur content of the fuel oil. The Permittee shall perform preventative maintenance to maintain the engines in a manner such that they operate as designed. [Reference: COMAR 26.11.03.06C]

D. Control of Carbon Monoxide Emissions

The Permittee shall perform preventative maintenance to maintain the engines in a manner such that they continue to operate as designed. [Reference: COMAR 26.11.03.06C]

E. Control of Nitrogen Oxide Emissions

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]

F. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAP Requirements.

3.4 Record Keeping Requirements:

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

A. Control of Visible Emissions

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference: COMAR 26.11.03.06C]

B. Control of Particulate Matter Emissions

The Permittee shall maintain for at least five years records of preventive maintenance that relates to combustion performance. [Reference: COMAR 26.11.03.06C]

C. Control of Sulfur Oxide Emissions

Table IV - 3

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)]

D. Control of Carbon Monoxide Emissions

The Permittee shall maintain for at least five years records of preventive maintenance that relates to combustion performance. [Reference: COMAR 26.11.03.06C].

E. Control of Nitrogen Oxide Emissions

The Permittee shall maintain for at least five years records of preventive maintenance that relates to combustion performance.

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

- (1) Certifications of the capacity factor for each engine;
- (2) Results of the combustion analysis; and
- (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility.

[Reference: COMAR 26.11.03.06C]

F. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAP Requirements.

3.5 Reporting Requirements:

A. Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Particulate Matter Emissions

The Permittee shall submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

C. Control of Sulfur Oxide Emissions

The Permittee shall report fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

D. Control of Carbon Monoxide Emissions

The Permittee shall submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

Table IV - 3

E. Control of Nitrogen Oxide Emissions

The Permittee shall submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report.

The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

F. <u>Control of Hazardous Air Pollutants (HAPs)</u> See Table IV-5 for HAP Requirements.

Table IV – 4

4.0 Emissions Unit Number(s): Generators

Unit 23: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300 kW [9-0035]

Unit 24: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300 kW [9-0036].

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

4.1 Applicable Standards/Limits:

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine</u> Powered Equipment

- "(2) <u>Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3) <u>Emissions During Operating Mode</u>. 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) 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.

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- (b) Section E(2) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Control of Sulfur Oxides

COMAR 26.11.09.07A - 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."

CPCN #7969 issued on November 29, 2001, which limits the sulfur content in residual (No 6-fuel oil) to 1.0 percent and 0.3 percent in distillate (No. 2 fuel oil).

C. Control of Nitrogen Oxides

NO_X RACT

COMAR 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department." COMAR 26.11.09.08G(1) Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.
- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing;
- 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;
- 3) 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;
- 4) 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

Table IV - 4

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

D. Operational Limits

CPCN #7969 issued on November 29, 2001, condition 5. The two units shall be designed and operated not to exceed the following emissions in tons per year (tpv):

Fuel	SO ₂	NO ₂	TSP	
#2 Oil (0.3% sulfur maximum)	79.53	708.8	11.11	
#6 Oil		732.63	50.63	

CPCN #7969 issued on November 29, 2001, condition 7. Total fuel oil usage (#2 and #6 oil combined) in each engine shall not exceed 2,397,551 gallons in any calendar year.

E. Control of Hazardous Air Pollutants (HAPs)
See Table IV-5 for HAPs Requirements.

4.2 Testing Requirements:

A. <u>Control of Visible Emissions</u> See Monitoring Requirements.

B. Control of Sulfur Oxide Emissions See Monitoring Requirements.

C. Control of Nitrogen Oxide Emissions

If **Unit 23 or Unit 24** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**

D. Operational Limits

See Record Keeping Requirements.

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAPs and stack testing requirements.

4.3 | Monitoring Requirements:

A. Control of Visible Emissions

Table IV - 4

The Permittee shall:

- (1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once for each calendar quarter. This requirement is waived for any calendar quarter during which an engine does not operate. The Permittee shall perform the following if visible emissions are observed:
- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

[Reference: COMAR 26.11.03.06C]

B. Control of Sulfur Oxide Emissions

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the sulfur content of the fuel oil.

[Reference: COMAR 26.11.03.06C]

C. Control of Nitrogen Oxide Emissions

See Record Keeping Requirements.

D. Operational Limits

See Record Keeping Requirements.

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAPs Requirements.

4.4 Record Keeping Requirements:

Note: All records must be maintained for a period of at least 5 years.

[Reference: COMAR 26.11.03.06C(5)(g)]

A. Control of Visible Emissions

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and

Table IV - 4

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

[Reference:_COMAR 26.11.03.06C]

B. Control of Sulfur Oxide Emissions

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)]

C. Control of Nitrogen Oxide Emissions

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

- (1) Certifications of the capacity factor for each engine;
- (2) Results of the combustion analysis; and
- (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility.

[Reference: COMAR 26.11.03.06C]

D. Operational Limits

The Permittee shall record monthly fuel usage for each engine to demonstrate compliance with the fuel usage limit on a 12-month rolling basis. [Reference: CPCN #7969 issued on November 29, 2001, condition 7].

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5 for HAPs Requirements.

4.5 Reporting Requirements:

A. Control of Visible Emissions

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Sulfur Oxide Emissions

The Permittee shall report fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

C. Control of Nitrogen Oxide Emissions

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report.

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The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

D. Operational Limits

The Permittee shall submit records of monthly fuel usage for each engine on a semi-annual basis to the Department to demonstrate compliance with the fuel usage limit and maintain records on site for at least five (5) years. [Reference: Reference: CPCN #7969 issued on November 29, 2001, condition 7]

E. Control of Hazardous Air Pollutants (HAPs) See Table IV-5 for HAPs Requirements.

Table IV – 5: MACT Requirements

5.0 Emissions Unit Number(s): Generators (Cont'd)

Unit 201: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0037]

Unit 202: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0038]

These units are only capable of operating on distillate (No. 2 fuel oil) and equipped with diesel oxidation catalyst.

Unit 21: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250 kW (60-MMBtu/hr.) [9-0033]

Unit 22: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW (60-MMBtu/hr.) [9-0034]

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

Unit 23: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW [9-0035]

Unit 24: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW [9-0036].

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

Table IV – 5: MACT Requirements

5.1 Applicable Standards/Limits:

Control of Hazardous Air Pollutants (HAPs)

40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

40 CFR §63.6603(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 2b to this subpart that apply to you."

Table 2d, Item 3 – "a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O₂; or b. Reduce CO emissions by 70 percent or more."

Table 2b, Item 2 – "a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F."

40 CFR §63.6625(g) – "If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph

- (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).
- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
- (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals."

(3)

5.2 Testing Requirements:

Control of Hazardous Air Pollutants (HAPs)

Table IV – 5: MACT Requirements

The Permittee shall conduct a performance test every 8760 hours of use per engine or every 3 years, whichever comes first. [Reference: 40 CFR §63.6620 and Table 3, Item 4]

5.3 | Monitoring Requirements:

Control of Hazardous Air Pollutants (HAPs)

The Permittee must install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the following criteria:

- (1) Develop a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below:
 - (a) The performance criteria and design specifications for the monitoring system equipment including sample interface, detector signal analyzer, and data acquisition and calculations;
 - (b) Sampling interface location such that the monitoring system will provide representative measurements;
 - (c) Equipment performance evaluations, system accuracy audits, or other audit procedures;
 - (d) Ongoing operation and maintenance procedures; and
 - (e) Ongoing reporting and recordkeeping procedures.
- (2) The CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the monitoring plan.
- (3) The CPMS must collect data at least once every 15 minutes.
- (4) The temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- (5) The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
- (6) The Permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. [Reference: 40 CFR §63.6625(b)]

The Permittee must be in compliance with the emission and operating limitations at all times. [Reference: 40 CFR §63.6605(a)]

At all times the engine, and associated air pollution control and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions beyond the standards in this permit. Determination of whether such operation and maintenance

Table IV - 5: MACT Requirements

procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Reference: 40 CFR §63.6605(b)]

Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously at all times that the engine is operating. [Reference: 40 CFR §63.6635(b)]

The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. However, all valid data collected during all other periods must be used. [Reference: 40 CFR §63.6635(c)]

5.4 | Record Keeping Requirements:

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

Control of Hazardous Air Pollutants (HAPs)

The Permittee shall maintain:

- (1) A copy of each notification and report submitted to comply with 40 CFR 63, Subpart ZZZZ, including all supporting documentation.
- (2) Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations.
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [Reference: 40 CFR 63.6655(a)]

For each CPMS, the Permittee shall keep records of:

- (1) Each period the CPMS is malfunctioning or inoperative (including out-of-control periods);
- (2) All required measurements needed to demonstrate compliance with a relevant standard:

Table IV - 5: MACT Requirements

- (3) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
- (4) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
- (5) All CMS calibration checks;
- (6) All adjustments and maintenance performed on CMS;
- (7) Previous versions of the performance evaluation plan; and
- (8) Requests for alternatives to the relative accuracy test for CPMS, if applicable. [Reference: 40 CFR 63.6655(b)]

To demonstrate continuous compliance with the standard, the Permittee shall keep records:

- (1) Collecting the catalyst inlet temperature data according to §63.6625(b); and
- (2) Reducing these data to 4-hour rolling averages; and
- (3) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
- (4) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

 [Reference: 40 CFR 63.6655(d)]

5.5 Reporting Requirements:

Control of Hazardous Air Pollutants (HAPs)

The Permittee shall submit semiannual compliance reports to the Department, including information regarding the date, time, and duration of any malfunctions or deviations from the emissions standards for the engines, control equipment, or monitoring equipment, if applicable.

[Reference: 40 CFR 63.6650(a) and Table 7 item 1]

The semiannual compliance report must contain:

- (1) Company name and address.
- (2) Statement by responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an

Table IV - 5: MACT Requirements

- affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
- (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period. [Reference: 40 CFR 63.6650(c)]

Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [Reference: 40 CFR 63.6650(f)]

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, re	eservoirs, or tanks used exclusively for:
	(a) No. <u>1</u>	Storage of lubricating oils;
	(b) No. <u>2</u>	Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

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, <u>Nuisance</u>.
 "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."
- 2. 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.

EASTON UTILITIES PLANT No. 2 8940 GLEBE PARK DRIVE EASTON, MD PERMIT NO. 24-041-0069

PART 70 OPERATING PERMIT FACT SHEET

BACKGROUND

Easton Utilities operates this electric generation plant located at 8940 Glebe Park Drive in Talbot County. The primary SIC code for this plant is 4911.

Easton Utilities' Plant 2 consists of six (6) diesel generators with a combined capacity of 28.1 MW and two (2) combustion turbines with a combined capacity of 9.0 MW for a total plant-wide capacity of 37.1 MW. Each unit is capable of burning No.2 fuel oil. The two (2) combustion turbines may also be fired by natural gas. Four (4) of the diesel generator units (#21 thru #24) are also capable of operating on No.6 fuel oil as a primary fuel. Note: No. 6 oil has not been burned since March 2013.

This source has operated historically as a peaking station. Easton Utilities operate the generators when the utility can generate electricity at a lower cost than the cost to purchase electricity on the PJM grid. The engines typically operate a few hundred hours a year and rarely over 1000 hours.

The following table summarizes the actual emissions from Easton Utilities Plant 2 based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NOx	SOx	PM ₁₀	CO	VOC	Total
	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	HAP
		<u>. </u>	·			(TPY)
2022	82.66	1.512	1.575	0.184	2.166	0.0068
2021	20.53	0.371	0.382	0.203	0.534	0.0068
2020	12.62	0.23	0.240	0.123	0.323	0.0000
2019	13.69	0.210	0.208	0.13	0,368	0.0045
2018	58.42	0.926	0.884	0.28	1.536	0.0000

Talbot County is in an attainment with the ozone standard but is nonetheless located in the Ozone Transport Region. The major source threshold for triggering Title V permitting requirements in Talbot County is 50 tons per year for VOC, 100 tons for NOx, 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 NOx emissions from the facility are greater than the major source threshold, Easton Utilities Plant #2 is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

On January 25, 2024, the Department received the Easton Utilities Plant #2's Part 70-permit renewal application, which was submitted by Easton Utilities. An

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administrative completeness review was conducted, and the application was deemed to be incomplete. The completeness determination letter was sent on February 12, 2024, granting the facility an application shield.

40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines applies to the facility. This regulation requires reductions in CO and performance tests to demonstrate compliance. The facility installed diesel oxidation catalysts and the required crankcase ventilation systems on all of the engines and is currently in compliance. Though Units 21-24 are capable and permitted to burn No. 6 fuel oil, they will no longer be doing so because of the diesel oxidation catalysts.

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The are no changes and/or modifications since the last renewal of Title V – Part 70 Operating Permit for Easton Utilities Plant 2.

Compliance Assurance Monitoring (CAM) Requirement.

Easton Utilities Plant #2 conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that the facility is not subject to the (CAM) Rule 40 CFR Subpart 64. 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 postcontrol 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.

Easton Utilities Plant #2 has sources which utilize APC devices to achieve compliance with the CO standard of 40 CFR 63, Subpart ZZZZ. This regulation is to control Hazardous Air Pollutants (HAPs) and Easton Utilities Plant #2 is not a pre-control major source for HAPs or CO, therefore CAM is not applicable.

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GREENHOUSE GAS (GHG) EMISSIONS

Easton Utilities Plant #2 emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes contained within the facility premises applicable to Easton Utilities Plant #2. 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 certification reports for the years 2020, 2021, and 2022, showed that Easton Utilities Plant #2 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 Easton Utilities Plant #2 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	861	1,416.77	5,817.98
Methane CH ₄	25	0.0296	0.049	0.265
Nitrous Oxide N ₂ O	298	0.0029	0.0049	0.019
Total GHG CO _{2eq}		862.604	1,416.825	5,818.216

EMISSION UNIT IDENTIFICATION

Easton Utilities Plant 2 has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
201	9-0037	One (1) Caterpillar 3516 diesel engine powered generator rated at 1,500-kW	5/1995

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Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
202	9-0038	One (1) Caterpillar 3516 diesel engine powered generator rated at 1,500-kW	5/1995
203	4-0101	One (1) Solar Taurus 60 Combustion turbine powered generator rated at 4.5-MW	11/2004
204	4-0102	One (1) Solar Taurus 60 Combustion turbine powered generator rated at 4.5-MW	11/2004
21	9-0033	One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW	3/1978
22	9-0034	One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW	3/1978
23	9-0035	One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW	6/1989
24	9-0036	One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW	6/1989

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

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emissions certification report and an annual compliance certification report, and results of sampling and testing.

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

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

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

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

Emissions Unit Number(s): Combustion Turbines (CTs)

Unit 203: Solar Turbines Inc. Model Taurus Combustion Turbine rated at 4.5 MW (43-MMBtu/hr.) [4-0101]

Unit 204: Solar Turbines Inc. Model Taurus Combustion Turbine rated at 4.5 MW (43-MMBtu/hr.) [4-0102]

These CTs are capable of firing on distillate (No.2 fuel oil) or natural gas.

These combustion turbine units (**Unit 203 & Unit 204**) are subject to the Certificate of Public Convenience and Necessity (CPCN) #8956 issued by the Public Service Commission (PSC) and became a final order of the Commission on September 23, 2003. The CPCN was amended on November 4, 2004. The amendment included changes to conditions 8 and 15 of the original CPCN issued in 2003. The Permittee avoided major non-attainment New Source Review by accepting a limitation on the total quantity of fuel that is burned annually and a

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limit of total NO_x emissions to no more than 35 pounds per hour and 27.2 tons per year in any 12-month period.

Unit 203 & Unit 204 are also subject to New Source Performance Standards (NSPS) for Stationary Combustion Turbines - 40 CFR Part 60, Subpart GG.

Compliance Status

During the October 11, 2022, inspection, no violation was noted, and **Units 203 & 204** were not operating. Review of records showed ultra-low 15ppm (0.0015%) fuel certifications which do not exceed the 0.3% limit for sulfur. **Units 203 & 204** did not exceed the 500-hrs of operation, therefore no combustion analysis was required. NO_x testing was conducted on the CTs (November 1-7, 2022) the results are as follows:

Units	Results	Limits
Unit 203, NO _X ppm	54 ppmvd @ 15% O ₂	168.3
Unit 203 lb./hr.	0.41	17.5
Unit 204, NO _X ppm	66.59 ppmvd @ 15% O ₂	186.4
Unit 204 lb./hr.	0.50	17.5

The 2022 capacity factors for the units are all less than 3.0% (1.5%-Unit 203 & 2.1%-Unit 204)

2022 ECR stated total fuel consumption for **Units 203 & 204**: 152,350-gallons less than the 1,343,711-gallons CPCN limit in 12-month period.

Applicable Standards and limits

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

A. Fuel Burning Equipment.

- "(1) Areas I, II, V, and VI. 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.
- (3) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period."

Compliance Demonstration

The Permittee shall: (1) Properly operate and maintain the combustion turbines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once during each calendar quarter. This requirement is waived for any calendar quarter during which a turbine did not operate.

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

- (1) Inspect combustion control system and turbine operations;
- (2) Perform all necessary adjustments and/or repairs to the turbines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference:_COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations.

B. Control of Sulfur Oxide Emissions

COMAR 26.11.09.07 – <u>Control of Sulfur Oxides from Fuel burning</u> equipment.

- "A. <u>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. "
- **40 CFR §60.333(b)** "No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of 0.8 percent by weight (8000 ppmw)."

CPCN #8956 issued on September 23, 2003, condition 12. The CTs shall burn No. 2 diesel fuel with sulfur content no greater than 0.05 percent by weight or natural gas.

Compliance Demonstration

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the 0.05% by weight sulfur content. [Reference: COMAR 26.11.03.06C]

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)]

The Permittee shall provide fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

NSPS Subpart GG

The owner or operator of any stationary gas turbine shall monitor the total sulfur content of the fuel being fired in the turbine as described in 60.335(b)(10) or other methods listed in the regulation. [Reference: 40 CFR 60.334(h)] 40 CFR §60.334: (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

- (2) <u>Sulfur dioxide</u>. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (*i.e.*, daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the asdelivered sampling option.
- (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours and ends on the date and hour of the next valid sample."

40 CFR §60.7: "(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring

system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection."

40 CFR §60.334: (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:

- (2) <u>Sulfur dioxide</u>. If the owner or operator is required to monitor the sulfur content of the fuel under paragraph (h) of this section:
- (i) For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 weight percent and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
- (ii) If the option to sample each delivery of fuel oil has been selected, the owner or operator shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.8 weight percent. The owner or operator shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted and shall evaluate excess emissions according to paragraph (j)(2)(i) of this section. When all of the fuel from the delivery has been burned, the owner or operator may resume using the asdelivered sampling option.
- (iii) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime shall include only unit operating hours and ends on the date and hour of the next valid sample.

C. Control of Nitrogen Oxide Emissions

COMAR 26.11.09.08G(1). - 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.

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) Not applicable to combustion turbines, and
- (e) Not applicable to combustion turbines."

40 CFR §60.332 - Standard for nitrogen oxides.

"(2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:

 $STD = (0.0150 \times (14.4/Y)) + F$

where:

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

Y = manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour, and $F = NO_X$ emission allowance for fuel-bound nitrogen as defined in paragraph (a)(4) of this section.

(4) If the owner or operator elects to apply a NO_x emission allowance for fuel-bound nitrogen, F shall be defined according to the nitrogen content of the fuel during the most recent performance test required under §60.8 as follows:

Fuel-bound nitrogen (percent by weight)	F (NO _x percent by volume)	
N ≤ .015	0	
0.015 <n≤0.1< td=""><td>0.04 (N)</td></n≤0.1<>	0.04 (N)	
0.1 <n≤0.25 +="" 0.004="" 0.0067(n-0.1)<="" td=""></n≤0.25>		
N >0.25	0.005	

Where:

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

CPCN #8956 issued on November 4, 2004, condition 15. The combined emissions from the two CTs shall not exceed the NOx emission rates of 35 pounds per hour and 27.2 tons per year over any continuous 12-month period (inclusive of startup/shutdown/malfunction).

Compliance Demonstration

If **Unit 203** or **Unit 204** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**The Permittee shall maintain the following records for at least five years at the facility:

- (1) Certifications of the capacity factor for each turbine; and
- (2) Results of the combustion analysis.

[Reference: COMAR 26.11.03.06C]

The Permittee shall submit the certification of the capacity factor for each turbine to the Department with the annual Title V Compliance Certification Report. The Permittee shall submit the results of combustion analysis and training records to the Department upon request. [Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

The Permittee shall report the results of the performance testing to the Department within 45 days after completion of the test. [Reference: COMAR 26.11.03.06C]

NSPS Subpart GG

The Permittee shall use the testing required for the CPCN to determine compliance with the NSPS standard.

The Permittee shall conduct performance testing on at least one of the CTs once during the 5-year term of the permit to demonstrate compliance with the NO_X emission rate. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed date of the test. [Reference: COMAR 26.11.03.06C].

40 CFR §60.334 - Monitoring of operations.

- (h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:
- (1) Shall monitor the total sulfur content of the fuel being fired in the turbine, except as provided in paragraph (h)(3) of 40 CFR §60.334. The sulfur content of the fuel must be determined using total sulfur methods described in §60.335(b)(10). Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than 0.4 weight percent (4000 ppmw), ASTM D4084-82, 94, D5504-01, D6228-98, or Gas Processors Association Standard 2377-86 (all of which are incorporated by reference-see §60.17), which measure the major sulfur compounds may be used; and
- (4) For any turbine that commenced construction, reconstruction, or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

- (i) The frequency of determining the sulfur and nitrogen content of the fuel shall be as follows:
- (1) Fuel oil. For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of appendix D to part 75 of this chapter (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). If an emission allowance is being claimed for fuel-bound nitrogen, the nitrogen content of the oil shall be determined and recorded once per unit operating day.
- (2) Gaseous fuel. Any applicable nitrogen content value of the gaseous fuel shall be determined and recorded once per unit operating day. For owners and operators that elect not to demonstrate sulfur content using options in paragraph (h)(3) of 40 CFR §60.334, and for which the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel shall be determined and recorded once per unit operating day."
- 40 CFR §60.7: "(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection."

 40 CFR §60.334: (j) For each affected unit that elects to continuously monitor parameters or emissions, or to periodically determine the fuel sulfur content or fuel nitrogen content under this subpart, the owner or operator shall submit reports of excess emissions and monitor downtime, in accordance with §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown, and malfunction. For the purpose of reports required under §60.7(c), periods of excess emissions and monitor downtime that shall be reported are defined as follows:
- (1) Nitrogen oxides.
- (i) For turbines using water or steam to fuel ratio monitoring:
- (A) An excess emission shall be any unit operating hour for which the average steam or water to fuel ratio, as measured by the continuous monitoring system, falls below the acceptable steam or water to fuel ratio needed to demonstrate compliance with §60.332, as established during the performance test required in §60.8. Any unit operating hour in which no water or steam is injected into the turbine shall also be considered an excess emission.
- (B) A period of monitor downtime shall be any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid.

- (C) Each report shall include the average steam or water to fuel ratio, average fuel consumption, ambient conditions (temperature, pressure, and humidity), gas turbine load, and (if applicable) the nitrogen content of the fuel during each excess emission. You do not have to report ambient conditions if you opt to use the worst-case ISO correction factor as specified in §60.334(b)(3)(ii), or if you are not using the ISO correction equation under the provisions of §60.335(b)(1). (ii) If the owner or operator elects to take an emission allowance for fuel bound
- (ii) If the owner or operator elects to take an emission allowance for fuel bound nitrogen, then excess emissions and periods of monitor downtime are as described in paragraphs (j)(1)(ii)(A) and (B) of this section.
- (A) An excess emission shall be the period of time during which the fuel-bound nitrogen (N) is greater than the value measured during the performance test required in §60.8 and used to determine the allowance. The excess emission begins on the date and hour of the sample which shows that N is greater than the performance test value and ends with the date and hour of a subsequent sample which shows a fuel nitrogen content less than or equal to the performance test value.
- (B) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour that a required sample is taken, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample.
- §60.7(c) "Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each 6-month period. Written reports of excess emissions shall include the following information:
 - (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
 - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report."

Discussion: Capacity factors

The engines at Easton Utilities Plant #2 always operate with a capacity factor less than 15% (EU-203 & EU-204: 1.5% and 2.1% respectively in 2022). The hours of operation are managed by economic dispatch from the PJM interconnector grid. Easton Utilities Plant #2 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 the possibility of brown outs or worse.

D. Operational Limits

CPCN #8956 issued on September 23, 2003, condition 13. The combined fuel (No.2 diesel) consumption of the two CTs shall not exceed 1,343,711 gallons (equivalent to 185,580 MMBtu per year fuel flow) for any 12-month period.

CPCN #8956 issued on September 23, 2003, condition 14. The two CTs shall be operated not less than 80 percent load or greater than 93 percent load (excluding start-up and shutdown) unless the Permittee can demonstrate to the satisfaction of ARA that short term emission rates can be achieved if operating beyond the specified load ranges.

Compliance Demonstration

The Permittee shall monitor and maintain a record of the load on the turbines. The Permittee shall maintain a log of gallons of fuel consumed calculated on a rolling 12-month basis and make available to the Department upon request. If the Permittee has not demonstrated to the satisfaction of ARA that short term emission rates can be achieved when operating under or beyond 80 and 93 percent of load, the Permittee shall report in the semi-annual monitoring report any periods when a turbine operated under or over the 80 and 93 percent of load restriction. [Reference: COMAR 26.11.03.06C]

Emissions Unit Number(s): Generators

Unit 201: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1,500-kW (14.4-MMBtu/hr.) [9-0037]

Unit 202: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1,500-kW (14.4-MMBtu/hr.) [9-0038]

These units are only capable of operating on distillate (No. 2 fuel oil) and equipped with diesel oxidation catalyst.

These units are subject to the Certificate of Public Convenience and Necessity (CPCN) #8529 issued by the Public Service Commission (PSC) on July 14, 1994. The Permittee avoided major New Source Review by accepting a limit on the annual hours of operation. The combined total hours of operation for the two engines are limited to 1000 per year on a 12-month rolling basis.

Compliance Status

During the October 11, 2022, inspection, these units were not operating. Plant operations decreased due to low demand. (Operating hours for these Units in 2022 are as follows: **Unit 201-**179.9 hrs. and **Unit 202-**212.2 hrs.).

CO testing was conducted on engines **Unit 201** (Nov 1-7, 2022) & **Unit 202** (October 11-12, 2022) per 40 CFR Part 63, Subpart ZZZZ and the results as follows:

Units	Results	Limit
Unit 201, CO	2.53 @ 15% O₂ or 99.1%	23 ppm @ 15% O ₂ or 70%
	reduction	reduction
Unit 202, CO	10.72 @ 15% O₂ or 88.8%	
	reduction	

The 2022 capacity factors for the units are all less than 3.0% (1.7%-Unit 201 & 2.2%-Unit 202)

Applicable Standards and limits

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine Powered</u> <u>Equipment</u>

- "(2) <u>Emissions During Idle Mode.</u> 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) 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) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration

The Permittee shall:

(1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once during each calendar quarter. This requirement is waived for any calendar quarter during which an engine did not operate.

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

- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference: COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

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. "

Compliance Demonstration

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil

complies with the 0.3% by weight sulfur content. [Reference: COMAR 26.11.03.06C] The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request. [Reference: COMAR 26.11.09.07A(1)(b)] The Permittee shall provide fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

<u>Rationale for periodic monitoring</u>: 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 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08G(1) - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.

- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing:
- 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;
- 3) 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;
- 4) 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
- 5) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

Compliance Demonstration

If **Unit 201 or Unit 202** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**

For internal combustion engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. The Permittee shall maintain the following records for at least five years at the facility:

- (1) Certifications of the capacity factor for each engine;
- (2) Results of the combustion analysis; and
- (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility.

[Reference: COMAR 26.11.03.06C]

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report. The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

Discussion: Capacity factors

The engines at Easton Utilities Plant #2 always operate with a capacity factor less than 15% (Unit 201: 1.7% & Unit 202: 2.2% in 2022). The hours of operation are managed by economic dispatch from the PJM interconnector grid. Easton Utilities Plant #2 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 the possibility of brown outs or worse.

D. Operational Limits

CPCN #8529 issued on July 14, 1994, limits the combined hours of operation for both generators to 1,000 hours per year on a rolling 12-month basis.

Compliance Demonstration

The Permittee shall maintain a log of hours of operation for each engine calculated on a 12-month rolling basis. The Permittee shall submit total hours of operation for each engine calculated for the 12-month period in the annual emissions certification statement. [Reference: COMAR 26.11.03.06C]

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5: MACT Requirements.

Emissions Unit Number(s): Generators

Unit 21: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250 kW (60-MMBtu/hr.) [9-0033]

Unit 22: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW (60-MMBtu/hr.) [9-0034]

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

These units were issued an initial CPCN (Case #6775) for the construction of these units in 1975. The units were reissued a CPCN identified as PSC Case #7705 by the Public Service Commission on June 24, 1983, to permit these units to burn No. 6 fuel oil in addition to No. 2 fuel oil. The fuel switch triggered PSD for particulate matter, sulfur dioxide carbon monoxide, and nitrogen oxides. BACT was based on the design of the engines. The manufacturer's emissions specifications for these engines were submitted with the PSD application.

Compliance Status

During the October 11, 2022, inspection, these units were not operating. Plant operations decreased due to low demand. (Operating hours for the units in 2022 are as follows: **Unit 21-**192.8 hrs. and **Unit 22-**225.8 hrs.)

On October 11-12, 2022, CO testing was conducted on engines **Units 21 & 22** per 40 CFR Part 63, Subpart ZZZZ and the results as follows:

Units	Results	Limit
Unit 21, CO	0.90 @ 15% O₂ or 99%	23 ppm @ 15% O ₂ or 70%
•	reduction	reduction
Unit 22, CO	1.18 @ 15% O₂ or 99.1%	
	reduction	

The 2022 capacity factors for the units are all less than 3.0% (1.9%-Unit 21 & 2.2%-Unit 22)

Applicable Standards and limits

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine Powered</u> Equipment

- "(2) <u>Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
 - (4) 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) 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) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration

The Permittee shall: (1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-minute period once for each calendar quarter. This requirement is waived for any calendar quarter during which an engine does not operate.

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

- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference: COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Particulate Matter Emissions

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for Total Suspended Particulate Matter (TSP):

For #2 fuel oil - 0.32 grams/sec: and For #6 fuel oil - 1.45 grams/sec

Compliance Demonstration

The Permittee shall: perform preventative maintenance to maintain the engines in a manner such that they operate as designed; maintain for at least five years records of preventive maintenance that relates to combustion performance; and submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

<u>Rationale for Periodic Monitoring:</u> The PSD limitations for particulate matter were based on the design of the engines. If the Permittee performs preventive maintenance that relates to combustion performance, the Permittee will comply with the PM limitations.

C. Control of Sulfur Oxides

COMAR 26.11.09.07A - 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."

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (a) which limits the sulfur content in residual (No. 6 fuel oil) to 1.0 percent and 0.3 percent in distillate (No. 2 fuel oil).

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for sulfur dioxide:

For #2 fuel oil - 2.29 grams/sec: and

For #6 fuel oil - 7.75 grams/sec

Compliance Demonstration

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the sulfur content of the fuel oil. The Permittee shall perform preventative maintenance to maintain the engines in a manner such that they operate as designed. [Reference: COMAR 26.11.03.06C]

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request.

[Reference: COMAR 26.11.09.07A(1)(b)]

The Permittee shall report fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

<u>Rationale for periodic monitoring</u>: This strategy for sulfur content in oil certification is similar to the requirement for boilers under New Source Performance Standards.

D. Control of Carbon Monoxide Emissions

PSD Approval

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for carbon monoxide:

For #2 fuel oil – 1.26 grams/sec: and For #6 fuel oil – 1.32 grams/sec

Compliance Demonstration

The Permittee shall: perform preventative maintenance to maintain the engines in a manner such that they continue to operate as designed; maintain for at least five years records of preventive maintenance that relates to combustion performance; and submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

<u>Rationale for Periodic Monitoring</u>: The PSD limitations for carbon monoxide were based on the design of the engines. If the Permittee performs preventive maintenance that relates to combustion performance, the Permittee will comply with the carbon monoxide limitations.

E. Control of Nitrogen Oxides

PSD Approval:

CPCN #7705 issued on June 24, 1983, condition (c) which required the engines to be designed to meet the following emission rates for nitrogen oxides:

For #2 fuel oil - 20.41 grams/sec: and

For #6 fuel oil - 21.67 grams/sec

NO_X RACT

COMAR 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08G(1) - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.

- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing;
- 2) 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;
- 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;
- 4) 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
- 5) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.'

Compliance Demonstration

If **Unit 21 or Unit 22** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. [Reference: COMAR 26.11.09.08G]

For internal combustion engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. The Permittee shall maintain for at least five years records of preventive maintenance that relates to combustion performance.

The Permittee shall maintain the following records for at least five years at the facility: (1) Certifications of the capacity factor for each engine; (2) Results of the combustion analysis; and (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility. The Permittee shall submit records of maintenance to the Department upon request. [Reference: COMAR 26.11.03.06C]

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report. The Permittee shall submit the results of combustion analysis and training records to the Department upon request. [Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

<u>Rationale for Periodic Monitoring</u>: The PSD limitations for nitrogen oxides were based on the design of the engines. If the Permittee performs preventive maintenance that relates to combustion performance, the Permittee will comply with the nitrogen oxides limitations.

Discussion: Capacity factors

The engines at Easton Utilities Plant #2 always operate with a capacity factor less than 15% (**Unit 21**: 1.9% and **Unit 22**: 2.2% in 2022). The hours of operation are managed by economic dispatch from the PJM interconnector grid. Easton Utilities Plant #2 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 the possibility of brown outs or worse.

F. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5: MACT Requirements.

Emissions Unit Number(s): Generators

Unit 23: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300-kW [9-0035]

Unit 24: One (1) Cooper-Bessemer diesel engine powered generator rated at 6.300-kW [9-0036].

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

These units were issued a modified CPCN#7969 on November 29, 2001. The original CPCN was issued in 1986. The modification allowed the use of both No.2 and No. 6 fuel oil in the generating units 23 and 24; changes to Condition 3, 4 and 5; and addition of a new Condition 6 to limit the amount of each type of fuel that can be used in any calendar year. These limits ensure that the generating units will not exceed the annual emissions proposed for inclusion as Condition 5.

On June 29, 2007, Easton Utilities submitted to the PSC a Request for Determination – Stack Height Change. The stacks for units 23 and 24 would be reduced by 10 feet to a height of 96 feet. A determination was given via letter (dated July 24, 2007) stating that since the change in the stack height does not

affect air emissions from the plant and the change has negligible effect on air quality with continued protection of the NAAQS, the change does not constitute a change in the CPCN and that a modification to the CPCN is not necessary.

Compliance Status

During the October 11, 2022, inspection, **Unit 23** was operating. Method 9 was conducted, and visible emissions were observed:5-15%. (Operating hours for these Units in 2022 ECR are as follows: **Unit 23**-244.7 hrs. and **Unit 24**: 248.5 hrs.) October 11-12, 2022, CO testing was conducted on engines: **Unit 23** & **Unit 24** per 40 CFR Part 63, Subpart ZZZZ and the results as follows:

Units	Results	Limit
Unit 23, CO	1.83 @ 15% O₂ or 94.6% reduction	23 ppm @ 15% O ₂ or 70% reduction
Unit 24, CO	2.27 @ 15% O ₂ or 91.6% reduction	

The 2022 capacity factors for the units are all less than 3.0% (2.4%-Unit 23 & 2.4%-Unit 24)

Applicable Standards and limits

A. Control of Visible Emissions

COMAR 26.11.09.05E. - <u>Stationary Internal Combustion Engine Powered</u> <u>Equipment</u>

- "(2) <u>Emissions During Idle Mode.</u> A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (3) <u>Emissions During Operating Mode</u>. 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) 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) 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) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration

The Permittee shall:

(1) Properly operate and maintain the engines in a manner to minimize visible emissions; and (2) Perform a visual observation of stack emissions for a 6-

minute period once for each calendar quarter. This requirement is waived for any calendar quarter during which an engine does not operate.

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

- (1) Inspect combustion control system and engine operations;
- (2) Perform all necessary adjustments and/or repairs to the engines within 48 hours, so that visible emissions are eliminated;
- (3) Document in writing the results of the inspections, adjustments and/or repairs to the engine; and
- (4) After 48 hours, if the required adjustments and/or repairs have not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions.

The Permittee shall:

- (1) Maintain on-site an operations manual and preventative maintenance plan that relates to combustion performance;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain a log of the results of all visible emissions observations performed and make it available to the Department's representative upon request.

[Reference: COMAR 26.11.03.06C]

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations."

B. Control of Sulfur Oxides

COMAR 26.11.09.07A - 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."

CPCN #7969 issued on November 29, 2001, which limits the sulfur content in residual (No 6-fuel oil) to 1.0 percent and 0.3 percent in distillate (No. 2 fuel oil).

Compliance Demonstration

The Permittee shall obtain fuel oil supplier certifications that include the name of the fuel supplier, and a certified statement from the supplier verifying that the oil complies with the sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]

The Permittee shall maintain records of the fuel oil supplier certifications for at least five (5) years and make them available to the Department upon request.

[Reference: COMAR 26.11.09.07A(1)(b)]

The Permittee shall report fuel suppliers' sulfur content certifications to the Department upon request. [Reference: COMAR 26.11.03.06C]

<u>Rationale for periodic monitoring</u>: This strategy for sulfur content in oil certification is similar to the requirement for boilers under New Source Performance Standards.

C. Control of Nitrogen Oxides

NO_X RACT

COMAR 26.11.09.08B(5) - Operator Training.

- "(a) For purposes 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.
- (b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department."

COMAR 26.11.09.08G(1) - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.

- "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:
- 1) Provide certification of the capacity factor of the equipment to the Department in writing;
- 2) 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;
- 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;
- 4) 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
- 5) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.'

Compliance Demonstration

If **Unit 23 or Unit 24** operate more than 500 hours per year, the Permittee shall perform a combustion analysis and optimize combustion based on that analysis at least once annually. **[Reference: COMAR 26.11.09.08G]**

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

- (1) Certifications of the capacity factor for each engine;
- (2) Results of the combustion analysis; and
- (3) Records of the training program attendance (including the date of training and the training provider) for each operator at the facility.

[Reference: COMAR 26.11.03.06C]

The Permittee shall submit the certification of the capacity factor for each engine to the Department with the annual Title V Compliance Certification Report. The Permittee shall submit the results of combustion analysis and training records to the Department upon request.

[Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G]

Discussion: Capacity factors

The engines at Easton Utilities Plant #2 always operate with a capacity factor less than 15% (**Unit 23**: 2.4% and **Unit 24**: 2.4% in 2022). The hours of operation are managed by economic dispatch from the PJM interconnector grid. Easton Utilities Plant #2 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 the possibility of brown outs or worse.

D. Operational Limits

CPCN #7969 issued on November 29, 2001, condition 5. The two units shall be designed and operated not to exceed the following emissions in tons per year (tpy):

Fuel	SO ₂	NO ₂	TSP	
#2 Oil (0.3%	79.53	708.8	11.11	
sulfur maximum)				
#6 Oil		732.63	50.63	

CPCN #7969 issued on November 29, 2001, condition 7. Total fuel oil usage (#2 and #6 oil combined) in each engine shall not exceed 2,397,551 gallons in any calendar year.

Compliance Demonstration

The Permittee shall record monthly fuel usage for each engine to demonstrate compliance with the fuel usage limit on a 12-month rolling basis. The Permittee shall submit records of monthly fuel usage for each engine on a semi-annual basis to the Department to demonstrate compliance with the fuel usage limit and maintain records on site for at least five (5) years. [Reference: Reference: CPCN #7969 issued on November 29, 2001, condition 7]

For 2022, the combined total fuel oil usage (#2 fuel oil and 0 gallons of #6 fuel oil) for each engine is as follows: **Unit 23** = 88,990 gallons, **Unit 24** = 84,980 gallons).

E. Control of Hazardous Air Pollutants (HAPs)

See Table IV-5: MACT Requirements.

Emissions Unit Number(s): Generators (Cont'd)

MACT Requirements

Unit 201: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0037]

Unit 202: One (1) 3516 Caterpillar Diesel Engine powered generator rated at 1500 kW (14.4 MMBtu/hr.) [9-0038]

These units are only capable of operating on distillate (No. 2 fuel oil) and equipped with diesel oxidation catalyst.

Unit 21: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250 kW (60-MMBtu/hr.) [9-0033]

Unit 22: One (1) Delaval-Enterprise diesel engine powered generator rated at 6,250-kW (60-MMBtu/hr.) [9-0034]

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

Unit 23: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300 kW [9-0035]

Unit 24: One (1) Cooper-Bessemer diesel engine powered generator rated at 6,300 kW [9-0036].

These units operate on distillate (No. 2 fuel oil) or No. 6 fuel oil and equipped with diesel oxidation catalyst.

Compliance Status

October 11-12, 2022, CO testing was conducted on engines: Units 201 (Nov 1-7, 2022) & 202; 21 & 22; & 23 & Unit 24 per 40 CFR Part 63, Subpart ZZZZ and the results as follows:

Units	Results	Limit
Unit 201. CO	2.53 @ 15% O ₂ or 99.1% reduction	23 ppm @ 15% O ₂ or 70% reduction
Unit 202, CO	10.72 @ 15% O ₂ or 88.8% reduction	
Unit 21, CO	0.90 @ 15% O ₂ or 99% reduction	

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Unit 22, CO	1.18 @ 15% O ₂ or 99.1%
	reduction
Unit 23, CO	1.83 @ 15% O ₂ or 94.6% reduction
Unit 24, CO	2.27 @ 15% O ₂ or 91.6%
01111 24, 00	reduction

Applicable Standards and limits

Control of Hazardous Air Pollutants (HAPs)

40 CFR Part 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion **Engines**

40 CFR §63.6603(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 2b to this subpart that apply to you."

Table 2d, Item 3 - "a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O2; or b. Reduce CO emissions by 70 percent or more."

Table 2b, Item 2 - "a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F."

40 CFR §63.6625(g) - "If you own or operate an existing non-emergency, nonblack start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals."

Compliance Demonstration

The Permittee shall conduct a performance test every 8760 hours of use per engine or every 3 years, whichever comes first. [Reference: 40 CFR §63.6620 and Table 3, Item 4]

The Permittee must install, operate, and maintain a continuous parameter monitoring system (CPMS) according to the following criteria:

- (1) Develop a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below:
 - (a) The performance criteria and design specifications for the monitoring system equipment including sample interface, detector signal analyzer, and data acquisition and calculations;
 - (b) Sampling interface location such that the monitoring system will provide representative measurements:
 - (c) Equipment performance evaluations, system accuracy audits, or other audit procedures;
 - (d) Ongoing operation and maintenance procedures; and
 - (e) Ongoing reporting and recordkeeping procedures.
- (2) The CPMS must be installed, operated, and maintained in continuous operation according to the procedures in the monitoring plan.
- (3) The CPMS must collect data at least once every 15 minutes.
- (4) The temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- (5) The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
- (6) The Permittee must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. [Reference: 40 CFR §63.6625(b)]

The Permittee must be in compliance with the emission and operating limitations at all times. [Reference: 40 CFR §63.6605(a)]

At all times the engine, and associated air pollution control and monitoring equipment, must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions beyond the standards in this permit. Determination of

whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[Reference: 40 CFR §63.6605(b)]

Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee must monitor continuously at all times that the engine is operating. [Reference: 40 CFR §63.6635(b)]

The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. However, all valid data collected during all other periods must be used. [Reference: 40 CFR §63.6635(c)]

The Permittee shall maintain:

- (1) A copy of each notification and report submitted to comply with 40 CFR 63, Subpart ZZZZ, including all supporting documentation.
- (2) Records of the occurrence and duration of each malfunction of operation or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations.
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [Reference: 40 CFR 63.6655(a)]

For each CPMS, the Permittee shall keep records of:

- (1) Each period the CPMS is malfunctioning or inoperative (including out-of-control periods);
- (2) All required measurements needed to demonstrate compliance with a relevant standard;
- (3) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;
- (4) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;
- (5) All CMS calibration checks;
- (6) All adjustments and maintenance performed on CMS;
- (7) Previous versions of the performance evaluation plan; and
- (8) Requests for alternatives to the relative accuracy test for CPMS, if applicable. [Reference: 40 CFR 63.6655(b)]

To demonstrate continuous compliance with the standard, the Permittee shall keep records:

- (1) Collecting the catalyst inlet temperature data according to §63.6625(b); and
- (2) Reducing these data to 4-hour rolling averages; and
- (3) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
- (4) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. [Reference: 40 CFR 63.6655(d)]

The Permittee shall submit semiannual compliance reports to the Department, including information regarding the date, time, and duration of any malfunctions or deviations from the emissions standards for the engines, control equipment, or monitoring equipment, if applicable. [Reference: 40 CFR 63.6650(a) and Table 7 item 1]

The semiannual compliance report must contain:

- (1) Company name and address.
- (2) Statement by responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
- (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period. [Reference: 40 CFR 63.6650(c)]

Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to

Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [Reference: 40 CFR 63.6650(f)]

COMPLIANCE SCHEDULE

Easton Utilities Plant 2 is currently in compliance with all applicable air quality regulations.

TITLE IV - ACID RAIN

Not Applicable.

TITLE VI – OZONE DEPLETING SUBSTANCES

Easton Utilities Plant #2 shall comply with the standards for recycling and emission reductions pursuant to 40 CFR Part 82, Subpart F.

SECTION 112(r) - ACCIDENTAL RELEASE

Easton Utilities Plant #2 is not subject to the requirements of Section 112(r).

PERMIT SHIELD

Easton Utilities Plant #2 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. <u>1</u>	Storage of lubricating oils;	
	(b) No. <u>2</u>	Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;	

STATE ONLY ENFORCEABLE REQUIREMENTS

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

Applicable Regulations:

- (A) COMAR 26.11.06.08 <u>Nuisance</u>.
 "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."