



AIR AND RADIATION ADMINISTRATION DRAFT PART 70 OPERATING PERMIT

DOCKET # 24-031-0324

COMPANY: National Institutes of Health

LOCATION: 9000 Rockville Pike
Bethesda, MD 20892

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

TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

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

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

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

Public Participation Process

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

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

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

Citizen Petition to EPA to Object to Permit Issuance

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

Applicant Objection to Permit Issuance and Recourse

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

**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION**

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

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by the National Institutes of Health located in Montgomery County, MD. The facility includes a cogeneration plant, as well as small boilers, emergency generators, and gasoline storage tanks.

The applicant is represented by:

Mr. William K. Floyd
National Institutes of Health
9000 Rockville Pike, Bldg 13, Rm 2S11
MSC 5746
Bethesda, MD 20892-5746

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

<https://tinyurl.com/DraftTitleV>

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

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

A Request for public hearing shall include the following:

- 1) The name, mailing address, and telephone number of the person making the request;
- 2) The names and addresses of any other persons for whom the person making the request if representing; and
- 3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

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

DRAFT PERMIT

Wes Moore
Governor

Serena McIlwain
Secretary

Air and Radiation Administration

1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

☐ Construction Permit

☐ Part 70 Operating Permit

PERMIT NO.:
24-031-0324

DATE ISSUED:
DATE ISSUED

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

EXPIRATION DATE:
April 30, 20XX

LEGAL OWNER & ADDRESS

National Institutes of Health
9000 Rockville Pike, Bldg 13, Rm 2S11
MSC 5746
Bethesda, Maryland 20892-5746
Attn: William K. Floyd, Director
Division of Environmental Protection

SITE

National Institutes of Health
9000 Rockville Pike
Bethesda, MD 20892
AI #1806

SOURCE DESCRIPTION

Biomedical Research Facility consisting of numerous fuel burning equipment.

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

**NATIONAL INSTITUTES OF HEALTH
9000 ROCKVILLE PIKE
BETHESDA, MARYLAND 20892
DRAFT PART 70 OPERATING PERMIT NO. 24-031-0324**

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

NIH Bethesda Campus

The National Institutes of Health (NIH) is a Federal Government biomedical research institution located in Bethesda, Montgomery County Maryland. It consists of a large research hospital, many research laboratory buildings, animal holding facilities, administrative facilities, support facilities, and a central utility plant. The NIH campus, located on 322 acres, consists of over 70 buildings. The laboratories on campus perform biomedical and related scientific research. The administrative areas support planning, administration, and coordination of NIH's programs, including research, clinical trials, communicable disease control and a variety of other activities. The SIC for the research laboratory is 8922.

Central Utility Plant

The central utility boiler plant (SIC 4961) includes five (5) boilers, two (2) back-up boilers, eighteen (18) chillers and one (1)- 23 MW cogeneration system that supply the heating, cooling and a significant portion of the electric capacity of the NIH campus in Bethesda.

Boilers Number 1 through 3 were constructed in 1952. Boiler Number 4 was constructed in 1968. Boiler Number 5 was constructed in 1995 and operates on natural gas with No. 2 fuel oil as a backup fuel. The boiler is equipped with flue gas recirculation and low NO_x burners. In 1993, Boilers Number 2 and 4 were converted to primarily fire natural gas with No. 2 fuel oil as a backup fuel. Boilers Number 1 through 4 were overhauled to fire natural gas as the primary fuel with No. 2 fuel oil as a backup fuel and burners were replaced with low NO_x burners between 1997 and 1999. This conversion was completed as part of the overall installation of the 23 MW cogeneration system.

The 23 MW cogeneration system was completed in July 2001. The cogeneration unit consists of a combustion turbine that generates approximately 23 MW of electricity and a Heat Recovery Steam Generator (HRSG) that produces 180,000 pounds per hour of steam. The cogeneration system operates on natural gas with low sulfur No.2 fuel oil as a backup fuel for the HRSG.

The two (2) Cleaver Brooks natural gas-fired boilers rated at 94.7 MMBtu/hr with No. 2 fuel oil as back-up were installed in 2018. These boilers will provide 75,000 lbs per hour of steam each to meet the facility's heating demands during winter and while the existing boilers and/or cogeneration plant are out of service for maintenance. These boilers were originally planned to be temporary, and trailer mounted, however on March 07, 2018 the Department received a letter from the facility saying that the boilers would no longer be trailer mounted and therefore would no longer be classified as temporary. The proposed boilers will only operate when the existing equipment (Boilers 1 through 5 and the Cogeneration System) are unable to operate or in standby mode (10% max load) to prevent freezing.

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Other Activities

The NIH Bethesda campus operates a total of fifty-eight (58) emission units; twenty-six (26) of these units are part of the Central Utility Plant, the other thirty-two (32) emission units are spread throughout the rest of the facility. The thirty-two (32) emission units consist of small boilers, emergency generators, and gasoline storage tanks. Since the previous renewal of the Title V Part 70 operating permit twelve (12) emission units were added to this category with the Department's General Permits-to-Construct program while one (1) emergency generator and one (1) fuel storage tank were removed.

2. FACILITY INVENTORY LIST

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|-------------------------------------|--------------------------------------|--|-----------------------------|
| 5-1024 (Boiler #5 – Bldg 11) | 5-1024 | One (1) Volcano International natural gas/No. 2 fuel oil fired boiler rated at 245 million Btu per hour heat input equipped with low NO _x burners and flue gas recirculation. | 1995 |
| 5-1156 (Cogeneration System – B/11) | 5-1156 | One (1) 23 MW Combustion Turbine Generator (CTG) and a 180,000 lb/hr heat recovery steam generator (HRSG). | July 2001 |
| 5-1198 (Boiler #1 – Bldg 11) | 5-1198 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1199 (Boiler #2 – Bldg 11) | 5-1199 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1200 (Boiler #3 – Bldg 11) | 5-1200 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1201 (Boiler #4 – Bldg 11) | 5-1201 | One (1) Combustion Engineering natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1968 |
| 5-2287 (Boiler – Bldg 62) | 5-2287 | One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input. | Jan 2013 |
| 5-2385 (Boiler – Bldg 82) | 5-2385 | One (1) Smith Cast Iron Boiler natural gas-fired boiler rated at 1.342 MMBtu/hr equipped with low-NO _x burner. | July 2015 |
| 5-2397 (Boiler – Bldg 15K) | 5-2397 | One (1) Lochinvar natural gas-fired boiler rated at 1.3 MMBtu/hr equipped with low-NO _x burner. | Oct 2017 |
| 5-2403 (Boiler – Bldg 11) | 5-2403 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. | Sept 2018 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|-------------------------------|--------------------------------------|---|-----------------------------|
| 5-2404 (Boiler – Bldg 11) | 5-2404 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. | Sept 2018 |
| 5-2518 (Boiler – Bldg T30) | 5-2518 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. | May 2020 |
| 5-2519 (Boiler – Bldg T30) | 5-2519 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. | May 2020 |
| 9-0474 (Generator – Bldg 59A) | 9-0474 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0475 (Generator – Bldg 59A) | 9-0475 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0476 (Generator – Bldg 59A) | 9-0476 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0532 (Generator – Bldg 12A) | 9-0532 | One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1996 |
| 9-0533 (Generator – Bldg 12A) | 9-0533 | One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1996 |
| 9-0561 (Generator – Bldg 45) | 9-0561 | One (1) Cummins 1000 kW emergency generator with a 1300 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1994 |
| 9-0562 (Generator – Bldg 10A) | 9-0562 | One (1) Cummins 700 kW emergency generator with a 1135 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1991 |
| 9-0568 (Generator – Bldg 49) | 9-0568 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1995 |
| 9-0582 (Generator – Bldg 37) | 9-0582 | One (1) Caterpillar 1640 kW emergency generator with a 2374 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1995 |
| 9-0583 | 9-0583 | One (1) Caterpillar 1825 kW emergency | Dec 1995 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|----------------------------------|--------------------------------------|--|-----------------------------|
| (Generator – Bldg 50) | | generator with a 2598 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | |
| 9-0584 (Generator – Bldg 40) | 9-0584 | One (1) Caterpillar 725 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | March 2000 |
| 9-0599 (Generator – Bldg 29B) | 9-0599 | One (1) Caterpillar 1000 kW emergency generator with a 1428 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1994 |
| 9-0698 (Generator – Bldg 11) | 9-0698 | Two (2) Cummins diesel-fired emergency generators each rated at 2940 horsepower. | Dec 2021 |
| 9-0728 (Generator – Bldg 35) | 9-0728 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0729 (Generator – Bldg 35) | 9-0729 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0730 (Generator – Bldg 35) | 9-0730 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0764 (Generator – Bldg 33) | 9-0764 | One (1) Detroit Diesel 2000 kW emergency generator with a 2750 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2005 |
| 9-0783 (Generator – Bldg 6B) | 9-0783 | One (1) Cummins 500 kW emergency generator with a 755 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | May 2003 |
| 9-0784 (Generator – Bldg 14E) | 9-0784 | One (1) Onan 450 kW emergency generator with a 600 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | May 2003 |
| 9-0786 (Generator – Bldg 10B) | 9-0786 | One (1) Caterpillar 750 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Jan 1978 |
| 9-0787 (Generator – Bldg 11) | 9-0787 | One (1) Cummins 600 kW emergency generator with a 900 brake horsepower engine (bhp) using diesel fuel with a sulfur | March 1995 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|----------------------------------|--------------------------------------|---|-----------------------------|
| | | content <0.05%. | |
| 9-0872 (Generator – Bldg 6) | 9-0872 | One (1) Cummins 1250 kW emergency generator with a 1626 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Feb 2008 |
| 9-0914 (Generator – Bldg 38A) | 9-0914 | One (1) Caterpillar 1000 kW emergency generator with a 1480 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | April 2009 |
| 9-0920 (Generator – Bldg 12) | 9-0920 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0921 (Generator – Bldg 12) | 9-0921 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0922 (Generator – Bldg 12) | 9-0922 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0923 (Generator – Bldg 12) | 9-0923 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0968 (Generator – Bldg 59) | 9-0968 | One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2005 |
| 9-0969 (Generator – Bldg 59) | 9-0969 | One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2004 |
| 9-0992 (Generator – Bldg 10F) | 9-0992 | One (1) Caterpillar 2000 kW emergency generator with a 2680 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Jan 2011 |
| 9-1015 (Generator – Bldg 31) | 9-1015 | One (1) Kohler 1000 kW emergency generator with a 1470 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | August 2011 |
| 9-1027 (Generator – Bldg 38) | 9-1027 | One (1) Kohler 474 kW emergency generator with a 635 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 2012 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|------------------------------------|--------------------------------------|---|-----------------------------|
| 9-1153 (Generator – Bldg 57) | 9-1153 | Two (2) Cummins diesel fired emergency generators each rated at 1490 bhp. | Dec 2016 |
| 9-1163 (Generator – Bldg 11) | 9-1163 | One (1) MTU emergency diesel fired generators rated at 1500 kW with a 2,328 bhp engine. | July 2017 |
| 9-1164 (Generator – Bldg 11) | 9-1164 | One (1) MTU emergency diesel fired generators rated at 750 kW with a 1,193 bhp engine. | July 2017 |
| 9-1175 (Generator – Bldg 10E) | 9-1175 | One (1) Caterpillar diesel fired emergency generator rated at 2000 kW (2937 bhp) | Jan 2018 |
| 9-1203 (Generator – Bldg T30) | 9-1203 | One (1) Caterpillar C13 emergency generator rated at 609 horsepower. | June 2019 |
| 9-1204 (Gasoline Storage Tanks) | 9-1204 | One (1) small motor vehicle refueling station. | Sept 2019 |
| 9-1219 (Generator – Bldg 4) | 9-1219 | One (1) Perkins diesel-fired emergency generator rated at 835 horsepower. | Apr 2020 |
| 9-1273 (Gasoline Storage Tanks) | 9-1273 | One (1) aboveground gasoline storage tanks and dispensing equipment. | Dec 2022 |
| 9-1279 (Generator – Bldg 38A) | 9-1279 | One (1) Kohler diesel-fired emergency generator rated at 1910 kW. | Jan 2023 |

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SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

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

2. ACRONYMS

| | |
|-----------------|--|
| ARA | Air and Radiation Administration |
| BACT | Best Available Control Technology |
| Btu | British thermal unit |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEM | Continuous Emissions Monitor |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMAR | Code of Maryland Regulations |
| EPA | United States Environmental Protection Agency |
| FR | Federal Register |
| gr | grains |
| HAP | Hazardous Air Pollutant |
| MACT | Maximum Achievable Control Technology |
| MDE | Maryland Department of the Environment |
| MVAC | Motor Vehicle Air Conditioner |
| NESHAPS | National Emission Standards for Hazardous Air Pollutants |
| NO _x | Nitrogen Oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| OTR | Ozone Transport Region |
| PM | Particulate Matter |
| 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 |

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| | |
|-----|----------------------------|
| TAP | Toxic Air Pollutant |
| tpy | tons per year |
| VE | Visible Emissions |
| VOC | Volatile Organic Compounds |

3. EFFECTIVE DATE

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

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

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

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

5. PERMIT RENEWAL

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

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

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

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6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

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

7. PERMIT ACTIONS

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

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

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

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

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

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

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

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

[COMAR 26.11.03.20B]

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

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

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

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

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

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

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

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

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

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

- a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.
- b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.
- c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:
 - (1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any

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new applicable requirements of the Clean Air Act that will apply if the change occurs;

- (2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.
- d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).
- e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.
- f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.
- g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

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

- a. A minor permit modification is a Part 70 permit revision that:
 - (1) Does not result in a violation of any applicable requirement of the Clean Air Act;
 - (2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

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- (a) Adding new requirements,
 - (b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or
 - (c) Changing from one approved test method for a pollutant and source category to another;
 - (3) Does not require or modify a:
 - (a) Case-by-case determination of a federally enforceable emissions standard,
 - (b) Source specific determination for temporary sources of ambient impacts, or
 - (c) Visibility or increment analysis;
 - (4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:
 - (a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and
 - (b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act
 - (5) Is not a Title I modification; and
 - (6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.
- b. Application for a Minor Permit Modification

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

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- (1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;
 - (2) The proposed minor permit modification;
 - (3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:
 - (a) The proposed change meets the criteria for a minor permit modification, and
 - (b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;
 - (4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.
- c. Permittee's Ability to Make Change
- (1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.
 - (2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):
 - (a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.
 - (b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

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- d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.
- e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

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

- a. An application for an administrative permit amendment shall:
 - (1) Be in writing;
 - (2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and
 - (3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.
- b. An administrative permit amendment:
 - (1) Is a correction of a typographical error;
 - (2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;
 - (3) requires more frequent monitoring or reporting by the Permittee;

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- (4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);
 - (5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);
 - (6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);
 - (7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or
 - (8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.
- c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.
 - d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.
 - e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

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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.

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- 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;

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- (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.

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- g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.
- h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

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

- a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.
- b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.
- c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

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

- a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
- b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
- c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

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- d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;
- e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;
- f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;
- g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.
- h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

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

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

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

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20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

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

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

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

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

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

- a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;
- b. Have access to and make copies of records required by the permit;
- c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and
- d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

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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.

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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;

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- 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.

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SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

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

2. OPEN BURNING

[COMAR 26.11.07]

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

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

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

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

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

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

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

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

5. ACCIDENTAL RELEASE PROVISIONS

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

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

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

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

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

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

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

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

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

8. EMISSIONS CERTIFICATION REPORT

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

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

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- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types and analyses of all fuels used;
 - (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
 - (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (7) Other relevant information as required by the Department.

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9. COMPLIANCE CERTIFICATION REPORT

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

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

- a. The compliance certification shall include:
 - (1) The identification of each term or condition of this permit which is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether the compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of each source, currently and over the reporting period; and
 - (5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.
- b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

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

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system

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designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

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

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurements are taken;
- c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and
- f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

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

These records and support information shall include:

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- a. All calibration and maintenance records;
- b. All original data collected from continuous monitoring instrumentation;
- c. Records which support the annual emissions certification; and
- d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

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

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

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

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

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

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

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- 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

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SECTION IV PLANT SPECIFIC CONDITIONS

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

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

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

| Table IV – 1 | |
|---------------------|--|
| 1.0 | <p><u>Emissions Unit Number(s): Boiler rated Greater than 100 MMBtu/hr</u></p> <p>5-1024 (Boiler #5 – Bldg 11) - One (1) Volcano International natural gas/No. 2 fuel oil fired boiler rated at 245 million Btu per hour heat input. This unit has both flue gas recirculation and low NO_x burners to control NO_x emissions. The sulfur content of the No. 2 fuel oil is less than 0.3% or the maximum sulfur content allowed by law. Boiler #5 has an operational limit for No 2 fuel oil based on a 10 percent annual fuel oil capacity factor.</p> |
| 1.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2) – <u>Visible Emissions.</u> “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. 2. COMAR 26.11.09.05A(3) – <u>Exceptions.</u> “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: <ol style="list-style-type: none"> 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.” |

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3. The Permittee, on or after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. **[Authority 40 CFR §60.43b(f)]**

Note: Compliance demonstration with COMAR 26.11.09.05A(2) will be used to comply with this standard.

B. Control of Sulfur Oxides Emissions

1. **COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment.** “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:
 - a. All solid fuels, 1.0 percent;
 - b. **Distillate fuel oils, 0.3 percent;**
 - c. Residual fuel oils, 1.0 percent.”

Note: Compliance demonstration with 40 CFR §60.42b(j) will be used to comply with this standard

2. The Permittee shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; (2) or maintaining fuel receipts as described in §60.49b(r). **[Authority: 40 CFR §60.42b(j)]**

Note: The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption. [Authority: COMAR 26.11.02.09A and 40 CFR §63.11237]

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C. Control of Nitrogen Oxides Emissions

1. COMAR 26.11.09.08B(1) – Control of NO_x Emissions for Major Stationary Sources. “Emission Standards and Requirements.

- a. A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.
- b. Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.
- c. Emission Standards in Pounds of NO_x per Million Btu of heat input.”

| Fuel | Tangential- Fired | Wall-Fired |
|---------|-------------------|------------|
| Gas/Oil | 0.25 | 0.25 |

***Note:** Compliance demonstration with §60.44b(a) will be used to comply with this standard*

2. The Permittee, on and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere any gases that contain nitrogen oxides (expressed as NO₂) in excess of 0.10 lb/mmBtu based on low heat release rate and 0.2 lb/mmBtu based on high heat release rate. **[Authority: 40 CFR §60.44b(a)]**
3. The Permittee, to determine compliance with the emission limits for nitrogen oxides required under 40 CFR §60.44b, shall conduct a performance test as required under 40 CFR §60.8 using the continuous system for monitoring nitrogen oxides under 40 CFR §60.48(b). **[Authority: 40 CFR §60.46b(e)]**

D. Operational Limit

1. The boiler shall use low NO_x burners and a flue gas recirculation system for NO_x emission control. **[Authority: MDE Permit to Construct No. 15-5-1024]**
2. The annual capacity factor for distillate oil shall not exceed 10 percent. (The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a calendar year, and the potential heat input to the steam generating unit had it been operating for 8760 hours during the calendar year at the maximum design heat input capacity). **[Authority: MDE Permit to Construct No. 15-5-1024]**
3. The total NO_x emissions from boilers #1, 2, 3, 4, and 5 shall not exceed 81.7 tons per year. **[Authority: MDE Permit to Construct No. 15-5-1156]**

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| Table IV – 1 | |
|---------------------|--|
| | <p>issued October 14,1998]</p> <p>4. The Permittee shall log the hours of operation on No. 2 fuel oil for the boiler. [Authority: COMAR 26.11.03.06C]</p> |
| 1.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>D. <u>Operational Limit</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> |
| 1.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the boiler in a manner to prevent visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the No. 2 fuel oil is in compliance with the limitation on the sulfur content of the fuel oil. [Authority: 40 CFR §60.45b(j)].</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall install, calibrate, maintain, and operate Continuous Emission Monitoring Systems (CEMS) for measuring NOX and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system. [Authority: 40 CFR §60.48b(b)(1)] 2. The CEMS required under 40 CFR §60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [Authority: 40 CFR §60.48b(c)] |

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| Table IV – 1 | |
|--------------|---|
| | <p>3. The 1-hour average NOX emission rates measured by the continuous NOx monitor required by 40 CFR §60.48b(b) and required under 40 CFR §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR §60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(h)(2). [Authority: 40 CFR §60.48b(d)]</p> <p>4. The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems (CEMS). [Authority: 40 CFR §60.48b(e)]</p> <p>5. When NOX emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved Authority methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [Authority: 40 CFR §60.48b(f)]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall calculate the capacity factor for the previous rolling 12-month period at the end of each month. [Authority: COMAR 26.11.03.06C]</p> |
| 1.4 | <p><u>Record Keeping Requirements:</u> <u>Note:</u> All records must be maintained for a period of at least 5 years. [Authority: COMAR 26.11.03.06C]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purpose of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. [Authority: 40 CFR §60.49b(r)]</p> |

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| Table IV – 1 | |
|---------------------|---|
| | <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain records of the following information for each operating day: <ol style="list-style-type: none"> a. Calendar date; b. The average hourly NOX emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted; c. The 30-day average NOX emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; d. Identification of the steam generating unit operating days when the calculated 30-day average NOX emission rates are in excess of the NOX emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken; e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; g. Identification of “F” factor used for calculations, method of determination, and type of fuel combusted; h. Identification of the times when the pollutant concentration exceeded full span of the CEMS; i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part. [Authority: 40 CFR 60.49b(g)] <p>D. <u>Operational Limit</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain a record of the annual capacity factor. [Authority: COMAR 26.11.03.06C and 40 cfr §60.49b(d)] 2. The Permittee shall maintain a log the hours of operation for the boiler on No. 2 fuel oil. [Authority: COMAR 26.11.03.06C] |
| 1.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, “Report of Excess Emissions and Deviations.” [Authority: COMAR 26.11.03.06C]</p> |

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| Table IV – 1 | |
|--------------|---|
| | <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee, being subject to sulfur dioxide standards under 40 CFR §60.42b, shall submit reports. The reporting period for the reports required is each six-month period. All reports shall be submitted to the Administrator (The Department) and shall be postmarked by the 30th day following the end of the reporting period. [Authority: 40 CFR §60.49b(j) and §60.49b(s)]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR Part 60, Subpart Db. [Authority: 40 CFR §60.49b(b)] 2. The Permittee is required to submit excess emissions reports for any excess emissions which occurred during the reporting period. [Authority: 40 CFR §60.49b(h)] 3. The Permittee shall submit reports containing the information recorded under paragraph (g) of 40 CFR §60.49b and submit excess emission reports for any excess emissions that occurred during the reporting period. [Authority: 40 CFR §60.49b(h)(2) & (i)] <p>D. <u>Operational Limit</u></p> <ol style="list-style-type: none"> 1. The Permittee shall submit to the Department the annual capacity factor with the annual emissions certification report due April 1. [Authority: MDE Permit to Construct No. 15-5-1024]. 2. The Permittee shall submit the total number of hours of operation for the boiler on No. 2 fuel oil with the annual emissions certification report due April 1. [Authority: COMAR 26.11.03.06C] |

| Table IV – 2 | |
|--------------|---|
| 2.0 | <p><u>Emissions Unit Number(s): Cogeneration System</u></p> <p>5-1156 (Cogeneration System – B/11): Cogeneration utility system consists of one (1) 23 Megawatt Combustion Turbine Generator (CTG) and a 180,000 lb/hr Heat Recovery Steam Generator (HRSG). The CTG consists of an ABB GT10 gas turbine with dry combustion low NO_x ABB EV burner system that burns natural gas. The HRSG consist of an exhaust gas waste heat recovery boiler with a supplemental steam generator that generates an addition 63 million Btu's per hour. The HRSG is capable of operating on both natural gas and No. 2 fuel oil.</p> |

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| Table IV – 2 | |
|--------------|--|
| 2.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.05A(2) – <u>Visible Emissions.</u> “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. COMAR 26.11.09.05A(3) – <u>Exceptions.</u> “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: <ol style="list-style-type: none"> The visible emissions are not greater than 40 percent opacity; and The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.” The Permittee, on and after the date on which the initial performance test is completed or required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [Authority: 40 CFR §60.43c(c)] The Permittee shall adhere to the PM and opacity standards under this section at all times, except during periods of startup, shutdown, or malfunction. [Authority: 40 CFR §60.43c(d)] <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.07A(2) – <u>Control of Sulfur Oxides from fuel burning equipment.</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: In Areas III and IV: <ol style="list-style-type: none"> All solid fuels, 1.0 percent; Distillate fuel oils, 0.3 percent; Residual fuel oils, 1.0 percent.” <p><u>Note:</u> Compliance demonstration with 40 CFR 60.42c will be used to comply with this standard.</p> <ol style="list-style-type: none"> The Permittee, on and after the date on which the initial performance test is completed or required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 |

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| | <p>lb/million Btu) heat input while burning oil; or, as an alternative, the Permittee shall not combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph. [Authority: 40 CFR §60.42c(d)]</p> <p>3. The Permittee, on and after the date on which the performance test required to be conducted by 40 CFR §60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:</p> <p>a. 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 contains sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.</p> <p>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). [Authority: 40 CFR §60.333]</p> <p><i>Note: Compliance demonstration with 40 CFR 60.42c will be used to comply with this standard</i></p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>1. 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:</p> <p>a. Provide certification of the capacity factor of the equipment to the Department in writing;</p> <p>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;</p> <p>c. Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request;</p> <p>d. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and</p> <p>e. Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”</p> |

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2. **COMAR 26.11.09.08G(2)** – 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 a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_x emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive.”

Note: Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

3. The Permittee shall not cause to be discharged into the atmosphere from any stationary gas turbines, any gases which contain nitrogen oxides in excess of :

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

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

Y = manufacturer's rated heat rate at manufacture'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.

F = NO_x emissions allowance for fuel-bound nitrogen as defined in paragraph 40 CFR §60.332(a)(4).

[Authority: 40 CFR §60.332(a)(2) and §60.332(d)]

Note: Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

4. The Permittee shall not discharge into the atmosphere from the stationary gas turbine NO_x emission in excess of 45 ppmdv (15 percent oxygen on a dry basis) averaged on a 1-hour basis when using fuel oil and 15 ppmdv (15 percent oxygen on a dry basis) when burning natural gas. **[Authority: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]**

D. Operational Limit

Total NO_x emissions from the Cogeneration System shall not exceed 55.6 tons per year. **[Authority: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]**

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| 2.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee must conduct a biennial performance tune-up no more than 25 months after the previous tune-up or initial startup of a new boiler. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [Authority: 40 CFR §63.11223(a) and (b)] 2. The Permittee must conduct a biennial tune-up of the boiler to demonstrate continuous compliance as specified below: <ol style="list-style-type: none"> a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer. |

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| | <p>f. Maintain onsite and submit, if requested, a report containing the following information:</p> <ul style="list-style-type: none"> i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler. ii. A description of any corrective actions taken as a part of the tune-up of the boiler. iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit. iv. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. [Authority: 40 CFR §63.11223(b)(1) through (7)] <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>See CEM quality assurance criteria of 40 CFR Part 60, Appendix F.</p> <p>D. <u>Operational Limit</u></p> <p>See Monitoring Requirements.</p> |
| 2.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ul style="list-style-type: none"> 1. The Permittee shall: <ul style="list-style-type: none"> a. Properly operate and maintain the boilers; and b. Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. [Authority: COMAR 26.11.03.06C] 2. The Permittee shall perform the following if emissions are visible to human observer: <ul style="list-style-type: none"> a. Inspect combustion control system and boiler operations, b. Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and c. Document in writing the results of inspections, adjustments and/or repairs to the boiler. |

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| | <p>d. After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee conduct the following sulfur monitoring for NSPS:</p> <ol style="list-style-type: none"> 1. <u>Analytical Methods:</u> Analyses indicating the fuel sulfur content of the pipeline quality natural gas will be provided by the natural gas supplier, or performed using one of the approved ASTM Authority methods specified in 40 CFR 60.335(b) for the measurement of sulfur in gaseous fuels, or an approved alternative method. [Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002] 2. <u>Monitoring Frequency:</u> Effective the date the NIH Cogeneration System completes emission/compliance testing, representative fuel sulfur analyses will be obtained on a quarterly basis. If this indicates consistent compliance with sulfur limits in 40 CFR 60.333, for eight consecutive quarters, then representative sulfur analyses shall be obtained once per year thereafter. [Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002] 3. <u>Non-compliance Procedure:</u> Should any sulfur analysis indicate non-compliance with sulfur limits in 40 CFR 60.333, the owner or operator shall notify the MDE and the EPA of any excess emissions and the custom schedule shall be reexamined by the Maryland Department of the Environment. In this event, representative natural gas fuel and fuel oil sulfur analyses shall be obtained monthly until; this custom monitoring schedule has been re-examined, approved and implemented. [Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002] <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the quality assurance criteria of 40 CFR Part 60, Appendix F, as amended, which is incorporated by Authority, or, if applicable, the quality assurance criteria of 40 CFR Part 75, Appendix B, as amended. [COMAR 26.11.01.11C]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall calculate the total NO_x emissions from the cogeneration system and boilers 1 thru 5 at the end of each month for the month and the previous 12-month rolling period. [Authority: COMAR 26.11.03.06C]</p> |
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| 2.4 | <p><u>Record Keeping Requirements:</u> <i>Note: All records must be maintained for a period of at least 5 years.</i> <i>[Authority: COMAR 26.11.03.06C]</i></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall:</p> <ol style="list-style-type: none"> 1. Maintain an operation manual and prevention maintenance plan on site; 2. Maintain a record of the maintenance performed that relates to combustion performance; 3. Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and 4. Maintain a record of the hours that No.2 fuel oil is burned. [Authority: COMAR 26.11.03.06C]. <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. All fuel monitoring records pertaining to the Alternative Fuel Monitoring Schedule will be retained on site for at least five years. [Authority: .NIH Alternative Fuel Monitoring Plan dated October 23, 2002] 2. The Permittee shall record and maintain records of the amounts of each fuel combusted during each day. [Authority: 40 CFR §60.48c(g)] <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall maintain CEM data collected and results of CEM QA/QC activities. [Authority: COMAR 26.11.01.01E]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall maintain records of the total NO_x emissions calculated on a rolling 12-month period. [Authority: COMAR 26.11.03.06C].</p> |
| 2.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations."</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall submit to the Department all fuel monitoring records pertaining to the Alternative Fuel Monitoring Schedule after every six-month period. [Authority: COMAR 26.11.03.06C] |

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| | <p>2. The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [Authority: 40 CFR §60.48c(j)]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>1. COMAR 26.11.01.11E(1) – <u>CEM System Downtime Reporting Requirements.</u></p> <p>a. “All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown. “</p> <p>b. “The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data.”</p> <p>2. COMAR 26.11.01.11E(2) – <u>CEM Data Reporting Requirements.</u></p> <p>a. “All test results shall be reported in a format approved by the Department.”</p> <p>b. “Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data.”</p> <p>c. “A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:</p> <ul style="list-style-type: none"> i. The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards; ii. The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned; iii. The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data; iv. Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter; v. Quarterly quality assurance activities; |
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| | <p>vi. Daily calibration activities that include Authority values, actual values, absolute or percent of span differences, and drift status; and</p> <p>vii. Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation.”</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall report the total NO_x emissions from the Cogeneration System and Boilers #1 thru #5 in the emission certification report due on April 1 of each year. [Authority: COMAR 26.11.03.06C]</p> |

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| 3.0 | <p><u>Emissions Unit Number(s): Boilers Exempt from NSPS</u></p> <p>5-1198 (Boiler #1 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.</p> <p>5-1199 (Boiler #2 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.</p> <p>5-1200 (Boiler #3 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.</p> <p>5-1201 (Boiler #4 – Bldg 11): One (1) Combustion Engineering natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.</p> |
| 3.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.05A(2) – <u>Visible Emissions.</u> “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. COMAR 26.11.09.05A(3) – <u>Exceptions.</u> “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: <ol style="list-style-type: none"> The visible emissions are not greater than 40 percent opacity; and The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.” |

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B. Control of Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

- a. All solid fuels, 1.0 percent;
- b. **Distillate fuel oils, 0.3 percent;**
- c. Residual fuel oils, 1.0 percent.”

Note: The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

[Authority: COMAR 26.11.02.09A and 40 CFR §63.11237]

C. Control of Nitrogen Oxides Emissions

COMAR 26.11.09.08B(1) - Control of NO_x Emissions for Major Stationary Sources. “Emission Standards and Requirements.

- a. A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.
- b. Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.
- c. Emission Standards in Pounds of NO_x per Million Btu of heat input.”

| Fuel | Tangential- Fired | Wall-Fired |
|---------|-------------------|------------|
| Gas/Oil | 0.25 | 0.25 |

D. Operational Limit

- 1. The Permittee shall log the hours of operation on No. 2 fuel oil for each boiler. **[Authority: COMAR 26.11.03.06C]**
- 2. The total NO_x emissions from boilers #1, 2, 3, 4, and 5 shall not exceed

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| | 81.7 tons per year. [Authority: MDE Permit to Construct No. 15-5-1156 issued October 14, 1998] |
| 3.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing. [Authority: PTC 15-5-1156N issued October 14, 1998, Part D(4)]</p> <p>D. <u>Operational Limit</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> |
| 3.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil. [Authority: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. [Authority: COMAR 26.11.03.06C] 2. The Permittee shall use an analyzer that is properly calibrated and |

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| | <p>maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department. [Authority: COMAR 26.11.03.06C]</p> <p>3. The Permittee shall calculate the heat input of the boilers by type of fuel at the end of each month. [Authority: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u></p> <p>See Record Keeping and Reporting Requirements</p> |
| 3.4 | <p><u>Record Keeping Requirements:</u> <i>Note: All records must be maintained for a period of at least 5 years.</i> <i>[Authority: COMAR 26.11.03.06C(5)(g)]</i></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request. [Authority: COMAR 26.11.09.07C].</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input. [Authority: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall maintain a log the hours of operation for each boiler on No. 2 fuel oil. [Authority: COMAR 26.11.03.06C]</p> |
| 3.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Authority: COMAR 26.11.03.06C]</p> |

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| | <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall report fuel supplier certification to the Department upon request. [Authority: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall submit a test protocol/notification to the Department at least 30 days prior to test. The Permittee shall also notify the Department at least 10 days prior to the testing and submit the testing report within 45 days from test completion. [Authority: COMAR 26.11.01.04A].</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall submit the total number of hours of operation for each boiler on No. 2 fuel oil with the annual emissions certification report due April 1. [Authority: COMAR 26.11.03.06C]</p> |

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| 4.0 | <p><u>Emissions Unit Number(s): Back-up Boilers</u></p> <p>5-2403 (Boiler #6 – Bldg 11): One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up.</p> <p>5-2403 (Boiler #7 – Bldg 11): One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up.</p> |
| 4.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.05A(2) – Visible Emissions. “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. COMAR 26.11.09.05A(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: <ol style="list-style-type: none"> The visible emissions are not greater than 40 percent opacity; and The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.” |

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B. Control of Sulfur Oxides Emissions

1. **COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment**. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:
 - d. All solid fuels, 1.0 percent;
 - e. **Distillate fuel oils, 0.3 percent;**
 - f. Residual fuel oils, 1.0 percent.”
2. The Permittee shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 215 ng/J (0.5 lb/million Btu) heat input; or, as an alternative, the Permittee shall not combust oil that contains greater than 0.5 weight percent sulfur. Fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. **[Authority: 40 CFR §60.42c(d) and (i)]**

Note: *Compliance with COMAR 26.11.09.07 demonstrates compliance with this requirement.*

C. Control of Nitrogen Oxides Emissions

- (1) 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.”
- (2) COMAR 26.11.09.08E, Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. “A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:
 - (1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;
 - (2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
 - (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
 - (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion

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| | <p>optimization that are sponsored by the Department, the EPA, or equipment vendors; and</p> <p>(5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”</p> <p>(3) In order to avoid triggering non-attainment new source review (NA-NSR), the Permittee shall limit the emissions of NO_x from the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) to less than 25 tons, in any rolling consecutive 12-month period. [Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]</p> <p>D. <u>Operational Limit</u></p> <p>1. The two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) shall be operated as backup for existing units only. The Permittee may operate the two (2) backup boilers (MDE Registration Nos. 031-0324-5-2403 and 5-2404) only when one or more of Boilers #1 through #5 (MDE Registration Nos. 031-0324-5-1024 and 5-1198 through 5-1201) or the Cogeneration System (MDE Registration No. 031-0324-5-1156) are not in use. Exceptions to this regulation include maintenance, testing, and the purpose stated in Condition 2 below. [Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]</p> <p>2. The Permittee may operate the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) on stand-by mode, at 10% of maximum capacity or less, when the daily forecasted temperature is below freezing as necessary. [Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]</p> <p>3. In order to remain exempt from the requirements in 40 CFR Part 63, Subpart JJJJJJ, the Permittee shall ensure that the two (2) boilers meet the following definition of gas-fired boilers: <i>“Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.”</i> [Authority: 40 CFR §63.11195(e) and 40 CFR §63.11237]</p> |
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| 4.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The performance test shall consist of the certification from the fuel supplier, as described in 40 CFR §60.48c(f). [Authority: 40 CFR §60.44c(h)]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>Perform a combustion analysis for each boiler at least once each year and optimize combustion based on the analysis. [Authority: COMAR 26.11.09.08E(2)]</p> <p>D. <u>Operational Limit</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> |
| 4.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions and verify that there are no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute periods once for each 168 hours that the boiler burns oil, or at a minimum of once per year. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall demonstrate compliance with the fuel oil sulfur limit based on a certification from the fuel supplier, as described in 40 CFR §60.48c(f). [Authority: 40 CFR §60.42c(h)(1)]</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors. [Authority: COMAR 26.11.09.08E(4)]</p> <p>D. <u>Operational Limit</u></p> |

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| | See Record Keeping and Reporting Requirements |
| 4.4 | <p><u>Record Keeping Requirements:</u> <u>Note:</u> <i>All records must be maintained for a period of at least 5 years.</i> <u>[Authority: COMAR 26.11.03.06C(5)(g)]</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>The Permittee shall maintain records of the following:</p> <ul style="list-style-type: none"> (a) If fuel oil is used in the boilers, the Permittee must provide documentation from a Curtailment Service Provider (CSP) that a curtailment occurred; and (b) Monthly records of total natural gas and No. 2 fuel oil usage in the previous 12 month period for the three (3) boilers. <p>The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request. [Authority: COMAR 26.11.09.07C].</p> <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <ul style="list-style-type: none"> 1. In order to avoid triggering non-attainment new source review (NA-NSR), the Permittee shall calculate and record the NOx emissions of the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month. [Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404] 2. The Permittee shall maintain and shall make available to the Department upon request, records of the following information: <ul style="list-style-type: none"> a. Monthly records of fuel usage. b. The operating and maintenance plan developed to minimize NOx emissions and records of all maintenance performed on each boiler. [Authority: COMAR 26.11.01.05 and Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404] 3. The Permittee shall maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and |

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| | <p>the EPA upon request. [Authority: COMAR 26.11.09.08E(3)]</p> <p>4. The Permittee shall prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request. [Authority: COMAR 26.11.09.08E(5)]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall maintain a log the hours of operation for each boiler on No. 2 fuel oil. [Authority: COMAR 26.11.03.06C]</p> |
| 4.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides Emissions</u></p> <p>(1) The Permittee shall submit fuel supplier certifications that include the following information:</p> <ul style="list-style-type: none"> (a) The name of the oil supplier; (b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil 40 CF §60.41c; and (c) The sulfur content or maximum sulfur content of the oil. [Authority: 40 CFR §60.48c(f)(1)] <p>(2) The Permittee shall keep records and submit reports as required in 40 CFR §60.48c(d), including the following information:</p> <ul style="list-style-type: none"> (a) Calendar dates covered in the reporting period. (b) A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [Authority: 40 CFR §60.48c(e)] <p>C. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each. [Authority: COMAR 26.11.09.08E(1)]</p> <p>The Permittee shall submit to the Department and the EPA, no later than 30 days after the end of the six months reporting period, NO_x emissions for each previous calendar month and a total for the previous 12 consecutive calendar</p> |

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| | <p>months. [Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]</p> <p>D. <u>Operational Limit</u></p> <p>The Permittee shall submit the total number of hours of operation for each boiler on No. 2 fuel oil with the annual emissions certification report due April 1. [Authority: COMAR 26.11.03.06C]</p> |

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| 5.0 | <p><u>Emissions Unit Number(s): Boilers rated less than 10 MMBtu/hr</u></p> <p>5-2287 (Boiler – Bldg 62): One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input.</p> <p>5-2397 (Boiler – Bldg 15K): One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input.</p> <p>5-2385 (Boiler – Bldg 82): One (1) Smith Cast Iron Boiler natural gas-fired boiler rated at 1.342 MMBtu/hr equipped with low-NOx burner.</p> <p>5-2397 (Boiler – Bldg 15K): One (1) Lochinvar natural gas-fired boiler rated at 1.3 MMBtu/hr equipped with low-NOx burner.</p> <p>5-2518 (Boiler – Bldg T30): One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr.</p> <p>5-2519 (Boiler – Bldg T30): One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr.</p> |
| 5.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.05A(2) – <u>Visible Emissions.</u> “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. COMAR 26.11.09.05A(3) – <u>Exceptions.</u> “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: <ol style="list-style-type: none"> The visible emissions are not greater than 40 percent opacity; and |

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| | <p>b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.”</p> <p>B. <u>Control of Nitrogen Oxides Emissions</u></p> <p>1. COMAR 26.11.09.08F(1) – <u>Control of NO_x Emissions for Major Stationary Sources. Requirements for Space Heaters.</u> “A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:</p> <ul style="list-style-type: none"> a. Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation; b. Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience; c. Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department; d. Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and e. Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.” <p>2. COMAR 26.11.09.08F(2) – <u>Control of NO_x Emissions for Major Stationary Sources. Requirements for Space Heaters.</u> “A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify, and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.”</p> <p>3. COMAR 26.11.09.08B(5) – <u>Operator Training.</u></p> <ul style="list-style-type: none"> 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.” <p>C. <u>Operational Limitations</u></p> <p>The Permittee shall burn only natural gas unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. [Authority: COMAR 26.11.02.09A]</p> |

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| 5.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>B. <u>Control of Nitrogen Oxides Emissions</u></p> <p>See Monitoring, Record Keeping, and Reporting Requirements</p> <p>C. <u>Operational Limitations</u></p> <p>See Record Keeping and Reporting Requirements</p> |
| 5.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the boiler in a manner to prevent visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Nitrogen Oxides Emissions</u></p> <p>The Permittee shall develop and implement an operating and maintenance plan as recommended by the equipment vendor to minimize NO_x emissions. [Authority: COMAR 26.11.09.08F(1)]</p> <p><i>Note: COMAR 26.11.09.08B(5)(a) states that “for the purpose of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation”.</i></p> <p>C. <u>Operational Limitations</u></p> <p>See Record Keeping and Reporting Requirements</p> |
| 5.4 | <p><u>Record Keeping Requirements:</u></p> <p><u>Note:</u> All records must be maintained for a period of at least 5 years. [Authority: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Authority: COMAR 26.11.03.06C]</p> |

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| | <p>B. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain the operating and maintenance plan at the premises. [Authority: COMAR 26.11.09.08F(1)(c)] 2. The Permittee shall maintain records of the operator training program attendance for each operator on the site for at least 5 years. [Authority: COMAR 26.11.09.08F(1)(e)] 3. The Permittee shall maintain records of fuel use which demonstrate that the boiler meets the definition of a space heater. [Authority: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C] <p>C. <u>Operational Limitations</u></p> <p>The Permittee shall maintain a record of the quantity of each type of fuel burned. [Authority: COMAR 26.11.02.19C(1)(c)]</p> |
| 5.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations" [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Nitrogen Oxides Emissions</u></p> <ol style="list-style-type: none"> 1. The Permittee shall submit a list of trained operators and training program attendance to the Department upon request. [Authority: COMAR 26.11.03.06C] 2. The Permittee shall inform the Department no later than 60 days after the date when the boilers no longer qualify as a space heater, and shall meet the requirements under COMAR 26.11.09.08E or identify an alternative NO_x RACT requirement under COMAR 26.11.09.08 with which the source will comply. [Authority: COMAR 26.11.09.08F(2)] <p>C. <u>Operational Limitations</u></p> <p>The Permittee shall submit a record of the quantity of each type of fuel burned with the annual emission certification report that is due April 1 of each year. [Authority: COMAR 26.11.02.19C(2)]</p> |

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| 6.0 | <p><u>Emissions Unit Number(s): NESHAP Emergency Generators</u></p> <p>9-0474 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0475 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0476 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0532 (Generator – Bldg 12A) – One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0533 (Generator – Bldg 12A) – One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0561 (Generator – Bldg 45) – One (1) Cummins 1000 kW emergency generator with a 1300 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0562 (Generator – Bldg 10A) – One (1) Cummins 700 kW emergency generator with a 1135 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0568 (Generator – Bldg 49) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0582 (Generator – Bldg 37) – One (1) Caterpillar 1640 kW emergency generator with a 2374 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0583 (Generator – Bldg 50) – One (1) Caterpillar 1825 kW emergency generator with a 2598 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0584 (Generator – Bldg 40) – One (1) Caterpillar 725 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0599 (Generator – Bldg 29B) – One (1) Caterpillar 1000 kW emergency generator with a 1428 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0728 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0729 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0730 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> |

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| | <p>9-0764 (Generator – Bldg 33) – One (1) Detroit Diesel 2000 kW emergency generator with a 2750 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0783 (Generator – Bldg 6B) – One (1) Cummins 500 kW emergency generator with a 755 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0784 (Generator – Bldg 14E) – One (1) Cummins 450 kW emergency generator with a 600 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0786 (Generator – Bldg 14A) – One (1) Caterpillar 750 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0787 (Generator – Bldg 11) – One (1) Cummins 600 kW emergency generator with a 900 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0968 (Generator – Bldg 59) – One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0969 (Generator – Bldg 59) – One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> |
| 6.1 | <p>Applicable Standards/Limits:</p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05E(2), Emissions During Idle Mode. “A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.” 2. COMAR 26.11.09.05E(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.” 3. COMAR 26.11.09.05E(4), Exceptions. <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> i. Engines that are idled continuously when not in service: 30 minutes; |

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| | <p>ii. All other engines: 15 minutes.</p> <p>c. Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.”</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>COMAR 26.11.09.07A(2), <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: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>1. <u>COMAR 26.11.09.08B(5) - Operator Training.</u></p> <p>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.</p> <p>b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.</p> <p>2. <u>COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.</u></p> <p>a. 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:</p> <p>i. Provide certification of the capacity factor of the equipment to the Department in writing;</p> <p>ii. 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;</p> <p>iii. 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;</p> <p>iv. 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</p> <p>v. Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.</p> |
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D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtain approval from the Department to burn an alternate fuel. **[Authority: COMAR 26.11.02.09A]**
2. The Permittee must operate emergency stationary RICE according to the requirements in the paragraphs of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements in the paragraphs of this section, the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.
 - a. There is no limit on emergency operation of the engine.
 - b. The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year.
 - c. The Permittee may operate the emergency engine for up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for the maintenance and testing and emergency response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **[Authority: 40 CFR §63.6640(f)(1), (2), and (4)]**

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| 6.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Authority: COMAR 26.11.09.08G(1)(b)]</p> <p>D. <u>Operational Limits</u></p> <p>See Monitoring Requirements.</p> |
| 6.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. [Authority: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Authority: COMAR 26.11.03.06C].</p> <p>D. <u>Operational Limits</u></p> |

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| | The Permittee shall monitor fuel usage for the generator. [Authority: COMAR 26.11.03.06C] |
| 6.4 | <p><u>Record Keeping Requirements:</u></p> <p>All records must be maintained for a period of 5 years. [Authority: COMAR 26.11.03.06.C (5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. [Authority: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>The Permittee shall:</p> <ol style="list-style-type: none"> a. Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. [Authority: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C]. b. Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. [Authority: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C]. <p>D. <u>Operational Limits</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. [Authority: COMAR 26.11.03.06C]. 2. The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s): <ol style="list-style-type: none"> a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model |

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| | <p>year of the diesel engine; and</p> <p>b. The installation date of the emergency diesel generator. [Authority: COMAR 26.11.03.06C]</p> |
| 6.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall report annual fuel supplier certification to the Department upon request. [Authority: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Authority: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C] 2. The Permittee shall submit a list of trained operators to the Department upon request. [Authority: COMAR 26.11.09.08G(e) and COMAR 26.11.03.06C] <p>D. <u>Operational Limits</u></p> <p>The Permittee shall send a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. [Authority: COMAR 26.11.03.06C]</p> |

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| 7.0 | <p><u>Emissions Unit Number(s): NSPS emergency generators</u></p> <p>9-0872 (Generator – Bldg 6) – One (1) Cummins 1250 kW emergency generator with a 1626 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0914 (Generator - Bldg 38A) – One (1) Caterpillar 1000 kW emergency generator with a 1480 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0920 thru 9-0923 (Generator - Bldg 12) – Four (4) MTU 2000 kW emergency generators each with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-0992 (Generator - Bldg 10F) – One (1) Caterpillar 2000 kW emergency generator with a 2680 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-1015 (Generator - Bldg 31) – One (1) Kohler 1000 kW emergency generator with a 1470 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-1027 (Generator – Bldg 38) – One (1) Kohler 474 kW emergency generator with a 635 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.</p> <p>9-1153 (Generator – Bldg 57) – Two (2) Cummins diesel fired emergency generators each rated at 1490 bhp.</p> <p>9-1163 (Generator – Bldg 11) – One (1) MTU diesel fired emergency generator rated at 1,500 kW with a 2,328 bhp engine.</p> <p>9-1164 (Generator – Bldg 11) – One (1) MTU diesel fired emergency generator rated at 750 kW with a 1,193 bhp engine.</p> <p>9-1175 (Generator – Bldg 10E) – One (1) Caterpillar diesel fired emergency generator rated at 2000 kW (2937 bhp)</p> <p>9-1203 (Generator – Bldg T30) – One (1) Caterpillar C13 emergency generator rated at 609 horsepower.</p> <p>9-1219 (Generator – Bldg 4) – One (1) Perkins diesel-fired emergency generator rated at 835 horsepower.</p> <p>9-1279 (Generator – Bldg 38A) – One (1) Kohler diesel-fired emergency generator rated at 1910 kW.</p> |
| 7.1 | <p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> COMAR 26.11.09.05E(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.” COMAR 26.11.09.05E(3), <u>Emissions During Operating Mode.</u> “A person may not cause or permit the discharge of emissions |

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| | <p>from any engine, operating at other than idle conditions, greater than 40 percent opacity.”</p> <p>3. COMAR 26.11.09.05E(4), <u>Exceptions.</u></p> <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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.” <p>B. <u>Control of Sulfur Oxides</u></p> <p>COMAR 26.11.09.07A(2), <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: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”</p> <p><u>Note:</u> <i>Installations subject to 40 CFR Part 60 Subpart IIII must comply with the diesel fuel standards of §60.4207 which limits the maximum sulfur content of fuel to 15 ppm.</i></p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ul style="list-style-type: none"> 1. COMAR 26.11.09.08B(5), <u>Operator Training.</u> <ul style="list-style-type: none"> 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. 2. COMAR 26.11.09.08G, <u>Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.</u> <ul style="list-style-type: none"> a. 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 |
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| | <p>less shall:</p> <ol style="list-style-type: none"> i. Provide certification of the capacity factor of the equipment to the Department in writing; ii. 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; iii. 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; iv. 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 v. Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request. <p>D. <u>Operational Limits</u></p> <ol style="list-style-type: none"> 1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtains a Permit to Construct from the Department to burn alternate fuel. [Authority: COMAR 26.11.02.09A] 2. The Permittee must operate and maintain the generators in a manner that achieve the emissions standards over the entire life of the engine. [Authority: 40 CFR §60.4206] 3. The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §80.510(b) as follows: <ol style="list-style-type: none"> a. Maximum sulfur content 15 ppm and b. Minimum cetane index of 40; or c. Maximum aromatic content of 35 volume percent. [Authority: 40 CFR §60.4207(b) and 40 CFR §80.510(b)] 4. The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission related written instruction. [Authority: 40 CFR §60.4211(a)(1)] 5. The Permittee may change only those emission related settings that are permitted by the manufacturer. [Authority: 40 CFR §60.4211(a)(2)] |
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6. The Permittee must purchase an engine certified to the emission standards in 40 CFR §60.4205(b). The engine must be installed and configured according to the manufacturer's emissions related specifications. **[Authority: 40 CFR §60.4211(c)]**
7. The Permittee must not exceed the following opacity emission standards:
 - (a) 20 percent during the acceleration mode;
 - (b) 15 percent during the lugging mode; and
 - (c) 50 percent during the peaks in either the acceleration or lugging modes. **[Authority: 40 CFR §60.4205(b), §60.4202(a)(2), and §89.113(a)]**

Note: *Compliance with this condition will be demonstrated by the purchase of a certified engine and operating that engine as required under 40 CFR §60.4211(c).*

8. There is no time limit on the use of emergency stationary ICE (internal combustion engine) in emergency situations. **[Authority: 40 CFR §60.4211(f)(1)]**
9. The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Authority: 40 CFR §60.4211(f)(2)(i)]**
10. The Permittee may operate the emergency stationary ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in the previous paragraph of this section. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income

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| | for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [Authority: 40 CFR §60.4211(f)(3)] |
| 7.2 | <p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Authority: COMAR 26.11.09.08G(1)(b)]</p> <p>D. <u>Operational Limits</u></p> <p>See Monitoring Requirements.</p> |
| 7.3 | <p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. [Authority: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>1. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Authority: COMAR 26.11.03.06C].</p> |

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| | <p>2. The Permittee shall calculate the capacity factor of the engine within 30 days after the end of each month. [Authority: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limits</u></p> <p>The Permittee shall monitor fuel usage for the generator. [Authority: COMAR 26.11.03.06C]</p> |
| 7.4 | <p><u>Record Keeping Requirements:</u></p> <p>All records must be maintained for a period of 5 years. [Authority: COMAR 26.11.03.06.C (5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. [Authority: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>1. The Permittee shall maintain records of the results of the combustion analyses and any stack tests on site for at least five years and make them available to the Department and EPA upon request. [Authority: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].</p> <p>2. The Permittee shall maintain a record of the calculated capacity factor. [Authority: COMAR 26.11.09.08G(1)(c)].</p> <p>3. The Permittee shall maintain record of training program attendance for each operator on site for at least five years and make the records available to the Department upon request. [Authority: COMAR 26.11.09.08G(e) & COMAR 26.11.03.06C]</p> |

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| | <p>D. <u>Operational Limits</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. [Authority: COMAR 26.11.03.06C]. 2. The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s): <ol style="list-style-type: none"> a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine; b. The installation date of each emergency diesel generator; and c. The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b). [Authority: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013 and MDE Permit to Construct No. 510-0077-9-1378 & 1382 issued October 20, 2018] 3. Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years. [Authority: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013 and MDE Permit to Construct No. 510-0077-9-1378 & 1382 issued October 20, 2018] |
| 7.5 | <p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, “Report of Excess Emissions and Deviations” [Authority: COMAR 26.11.03.06C].</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall report annual fuel supplier certification to the Department upon request. [Authority: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> |

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| | <ol style="list-style-type: none"> 1. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Authority: COMAR 26.11.03.06C]. 2. The Permittee shall submit a list of trained operators to the Department upon request. [Authority: COMAR 26.11.09.08G(e) and COMAR 26.11.03.06C] <p>D. <u>Operational Limits</u></p> <p>The Permittee shall report a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. [Authority: COMAR 26.11.03.06C]</p> |

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| 8.0 | <p><u>Emissions Unit Number(s): Gasoline Storage Tanks</u></p> <p>9-1204 (Gasoline Storage Tanks) – One (1) small motor vehicle refueling station.</p> <p>9-1273 (Gasoline Storage Tanks) – One (1) aboveground gasoline storage tanks and dispensing equipment.</p> |
| 8.1 | <p><u>Applicable Standards/Limits:</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.13.04C(2) – Small Storage Tanks, Stage I Vapor Recovery. “An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained and used.” 2. COMAR 26.11.13.04D – General Standards. “A person may not cause or permit a gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any truck, railroad tank car, or other contrivance unless the:” <ol style="list-style-type: none"> a. “Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and” b. “Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading and unloading operations.” |

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| 8.2 | <p><u>Testing Requirements:</u></p> <p>See Monitoring Requirements.</p> |
| 8.3 | <p><u>Monitoring Requirements:</u></p> <p>At least once a month during a delivery, the Permittee shall monitor the fuel drop for liquid spills and at least once every three months, check the fittings at the station for proper operation and seal. [Authority: COMAR 26.11.03.06C]</p> |
| 8.4 | <p><u>Record Keeping Requirements:</u></p> <p><u>Note:</u> <i>All records must be maintained for a period of at least 5 years. [Authority: COMAR 26.11.03.06C(5)(g)]</i></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain the following records for at least 5 years: <ol style="list-style-type: none"> a. The date on which defective equipment was found, a description of each defect, a description of the corrective action and date on which the defect was corrected, and the probable cause of the defect; b. If parts are replaced, the location within the approved system of the part, the part number, and assurance that the replacement part does not degrade the efficiency of the system; and c. Inspection reports and any other information relating to maintenance or care of the system. <p>[Authority: COMAR 26.11.03.06C]</p> 2. COMAR 26.11.24.07D - Recording keeping and Reporting Requirements. “Requirements for Gasoline Dispensing Facilities Exempted by Regulation .02C of this chapter. <ol style="list-style-type: none"> a. An owner or operator of a gasoline dispensing facility exempted according to Regulation .02C of this chapter shall create and maintain records on gasoline throughput and tank sizes and make the records available to the Department upon request. b. An owner or operator shall install and operate an approved system within 1 year after any calendar year in which the average monthly gasoline throughput at the facility during the calendar year exceeds 50,000 gallons per month for existing independent small business gasoline marketers, or 10,000 gallons per month for other existing gasoline dispensing facilities. The owner and operator of these facilities are subject to all applicable requirements of this chapter.” |
| 8.5 | <p><u>Reporting Requirements:</u></p> <p>The Permittee shall make records available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p> |

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SECTION V INSIGNIFICANT ACTIVITIES

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

- (1) No. 14 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The boilers are subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

- (2) No. 69 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The affected units are subject to the following requirements:

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

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- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
- (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.
- (D) New Source Performance Standards: 40 CFR 60, Subpart IIII and 40 CFR 60, Subpart JJJJ as applicable.
- (E) National Emission Standards for Hazardous Air Pollutants: 40 CFR 63, Subpart ZZZZ as applicable.
- (3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The affected units are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

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- (a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;
- (b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;
- (c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

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

- (a) Monthly records of the total VOC degreasing materials used; and
 - (b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.
- (5) ☒ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (6) ☒ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (7) Containers, reservoirs, or tanks used exclusively for:
- (a) ☐ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

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- (b) Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
- (c) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
- (d) No. ✓ Storage of lubricating oils;
- (e) No. ✓ Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;
- (f) No. ✓ Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
- (g) No. ✓ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
- (h) No. ✓ The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (8) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
- (9) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (10) ✓
- (11) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (12) ✓ Laboratory fume hoods and vents;

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

The following Proposed regulations (C) through (E) apply to the Cogeneration System – B/11 (ARA Regulation No. 031-0324-5-1156) only.

- C. **COMAR 26.11.40.02 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units.** Applicability.
 - 1. “The owner or operator of a non-trading large NO_x unit, that is not a unit subject to the federal Cross State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program established under 40 CFR Part 97, Subpart EEEEE, shall comply with the ozone season NO_x emission limitation, monitoring, recordkeeping and reporting requirements for ozone season emissions of NO_x set forth in this Chapter.”
 - 2. “The requirements of this Chapter apply to a person who owns or operates a non-trading large NO_x unit located at the affected sources in §C of this Regulation.”
 - 3. “Affected Sources and Units.”
 - a. Cove Point LNG Units No. Frame 5-1 (Turbine S009), Frame 5-2 (Turbine S010), Frame 7-A, Frame 7-B, Aux A and Aux B;
 - b. Luke Paper Mill Units No. 24, 25 and 26;
 - c. American Sugar Unit No. C6; and
 - d. National Institutes of Health Unit 5-1156; and

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e. A person who owns or operates a new unit subject to the Chapter

D. COMAR 26.11.40.03 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units. NO_x Ozone Season Emission Caps.

1. "The total combined NO_x ozone season emissions for all non-trading large NO_x units subject to this Chapter shall not exceed 1013 tons in accordance with the 40 CFR Part 97, Subpart E, Appendix C."
2. "NO_x Ozone Season Emission Caps."
 - a. "The total combined ozone season NO_x emissions from all the affected units at an affected source as identified in §.02.C of this Chapter shall not exceed the NO_x ozone season emission caps in §B(2) of this Regulation."
 - b. "Table – NO_x Ozone Season Emission Caps"

| <i>Affected Sources</i> | <i>NO_x Ozone Season Emission Caps beginning May 1, 2018</i> |
|--|--|
| <i>Cove Point LNG</i> | <i>214 tons</i> |
| <i>Luke Paper Mill</i> | <i>656 tons</i> |
| <i>American Sugar</i> | <i>24 tons</i> |
| <i>National Institutes of Health</i> | <i>23 tons</i> |
| <i>New Unit Set Aside</i> | <i>96 tons</i> |
| <i>Total</i> | <i>1013 tons</i> |

3. "NO_x ozone season emission caps for new units shall be determined by the Department from available tonnage allocated to New Unit Set Aside under §B(2) of this Regulation."

E. COMAR 26.11.40.04 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units. Monitoring and Reporting Requirements.

1. "For non-trading large NO_x units subject to this Chapter, the owner or operator shall:"
 - a. "Continuously monitor NO_x emissions with a CEM system in accordance with 40 CFR Part 75, Subpart H and 40 CFR §51.121(i)(4); and"

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- b. "Maintain records and submit reports regarding NO_x emissions in accordance with 40 CFR Part 75."
 - 2. "The owner or operator of a non-trading large NO_x unit subject to this Regulation shall include emissions data obtained from a CEM system pursuant to §A of this Regulation in the CEM quarterly reports submitted to the Department pursuant to COMAR 26.11.01.11E(2)."
2. Record Keeping and Reporting:
- A. 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:
 - 1. a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
 - 2. 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.

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BACKGROUND

NIH Bethesda Campus

The National Institutes of Health (NIH) is a Federal Government biomedical research institution located in Bethesda, Montgomery County Maryland. It consists of a large research hospital, many research laboratory buildings, animal holding facilities, administrative facilities, support facilities, and a central utility plant. The NIH campus, located on 322 acres, consists of over 70 buildings. The laboratories on campus perform biomedical and related scientific research. The administrative areas support planning, administration, and coordination of NIH's programs, including research, clinical trials, communicable disease control and a variety of other activities. The SIC for the research laboratory is 8922.

Central Utility Plant

The central utility boiler plant (SIC 4961) includes five (5) boilers, two (2) back-up boilers, eighteen (18) chillers and one (1) 23 MW cogeneration system that supply the heating, cooling and a significant portion of the electric capacity of the NIH campus in Bethesda.

Boilers Number 1 through 3 were constructed in 1952. Boiler Number 4 was constructed in 1968. Boiler Number 5 was constructed in 1995 and operates on natural gas with No. 2 fuel oil as a backup fuel. The boiler is equipped with flue gas recirculation and low NO_x burners. In 1993, Boilers Number 2 and 4 were converted to primarily fire natural gas with No. 2 fuel oil as a backup fuel. Boilers Number 1 through 4 were overhauled to fire natural gas as the primary fuel with No. 2 fuel oil as a backup fuel and burners were replaced with low NO_x burners between 1997 and 1999. This conversion was completed as part of the overall installation of the 23 MW cogeneration system.

The 23 MW cogeneration system was completed in July 2001. The cogeneration unit consists of a combustion turbine that generates approximately 23 MW of electricity and a Heat Recovery Steam Generator (HRSG) that produces 180,000 pounds per hour of steam. The cogeneration system operates on natural gas with low sulfur No.2 fuel oil as a backup fuel for the HRSG.

The two (2) Cleaver Brooks natural gas-fired boilers rated at 94.7 MMBtu/hr with No. 2 fuel oil as back-up were installed in 2018. These boilers provide 75,000 lbs per hour of steam each to meet the facility's heating demands during winter and while the existing boilers and/or cogeneration plant are out of service for maintenance.

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These boilers were originally planned to be temporary, and trailer mounted, however on March 07, 2018 the Department received a letter from the facility saying that the boilers would no longer be trailer mounted and therefore would no longer be classified as temporary. The proposed boilers will only operate when the existing equipment (Boilers 1 through 5 and the Cogeneration System) are unable to operate or in standby mode (10% max load) to prevent freezing.

Other Activities

The NIH Bethesda campus operates a total of fifty-eight (58) emission units; twenty-six (26) of these units are part of the Central Utility Plant, the other thirty-two (32) emission units are spread throughout the rest of the facility. The thirty-two (32) emission units consist of small boilers, emergency generators, and gasoline storage tanks.

The facility's emission units have been organized for Title V permitting into the following categories:

1. Boiler rated Greater than 100 MMBtu/hr – (Table IV-1)
Consists solely of Boiler #5 (MDE Registration No. 031-0324-5-1024) which is subject to New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Db).
2. Cogeneration System – (Table IV-2)
Consists solely of the cogeneration utility system (MDE Registration No. 031-0324-5-1156): one (1) 23 Megawatt Combustion Turbine Generator (CTG) and a 180,000 lb/hr Heat Recovery Steam Generator (HRSG).
3. Boilers Exempt from NSPS – (Table IV-3)
Consists of four (4) boilers (MDE Registration No. 031-0324-5-1198 through 5-1201) that are rated greater than 100 but were installed prior to the applicability of NSPS for steam generating units.
4. Back-up Boilers – (Table IV-5)
Two (2) boilers (MDE Registration No. 031-0324-5-2403 & 2404) rated between 10 MMBtu/hr and 100 MMBtu/hr that only operate when the existing equipment (Boilers 1 through 5 and the Cogeneration System) are unable to operate or in standby mode (10% max load) to prevent freezing.
5. Boiler rated less than 10 MMBtu/hr – (Table IV-4)
Six (6) natural gas-fired boilers for space heating in various buildings.

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6. NSPS Emergency Generators – (Table IV-6)
Twenty (20) of the forty-three (43) emergency generators at the facility that are required to meet New Source Performance Standards (NSPS) for Stationary Compression Ignition Combustion Engines.
7. NESHAP Emergency Generators – (Table IV-7)
Twenty-three (23) of the forty-three (43) emergency generators at the facility that are required to meet National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.
8. Gasoline Storage Tanks – (Table IV-8)
Two (2) small gasoline storage tank with no NSPS or NESHAP requirements.

Compliance History

The most recent full compliance evaluation took place on August 18, 2022. The inspector found no violations during the inspection. There have been no recent Notices of Violation (NOVs) issued to the facility.

Emissions

The following table summarizes the actual emissions from NIH Bethesda Campus based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

| Year | NO _x (TPY) | SO _x (TPY) | PM ₁₀ (TPY) | CO (TPY) | VOC (TPY) | Total HAP (TPY) |
|------|--------------------------|--------------------------|---------------------------|-------------|--------------|-----------------------|
| 2022 | 81.43 | 2.38 | 3.35 | 14.53 | 2.98 | 0.12 |
| 2021 | 90.88 | 2.85 | 3.68 | 15.39 | 3.20 | 0.14 |
| 2020 | 93.25 | 2.74 | 3.57 | 11.53 | 3.06 | 0.16 |
| 2019 | 96.30 | 2.78 | 4.00 | 13.38 | 3.06 | 0.14 |
| 2018 | 73.21 | 2.73 | 3.03 | 15.40 | 3.22 | 0.15 |
| 2017 | 63.33 | 2.04 | 2.89 | 12.56 | 3.00 | 0.84 |

The major source threshold for triggering Title V permitting requirements in Montgomery County is 25 tons per year for VOC, 25 tons for NO_x, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPs. Since the actual NO_x emissions from the facility are greater than the major source threshold, NIH Bethesda Campus is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

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As a major source of NO_x, this facility is also subject to requirements of Reasonably Available Control Technology (RACT) for NO_x. On May 25, 2022, the Department received an application for the renewal of the Title V – Part 70 Operating Permit for NIH.

An administrative completeness review was conducted and the application was deemed to be administratively complete. An administrative completeness letter was sent on August 24, 2022.

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

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

Table 2: Additional Emissions Units

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description |
|---------------------------------|--------------------------------------|---|
| 5-2385 (Boiler – Bldg 82) | 5-2385 | One (1) Smith Cast Iron Boiler natural gas-fired boiler rated at 1.342 MMBtu/hr equipped with low-NO _x burner. |
| 5-2397 (Boiler – Bldg 15K) | 5-2397 | One (1) Lochinvar natural gas-fired boiler rated at 1.3 MMBtu/hr equipped with low-NO _x burner. |
| 5-2403 (Boiler – Bldg 11) | 5-2403 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. |
| 5-2404 (Boiler – Bldg 11) | 5-2404 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. |
| 5-2518 (Boiler – Bldg T30) | 5-2518 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. |
| 5-2519 (Boiler – Bldg T30) | 5-2519 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. |
| 9-0698 (Generator – Bldg 11) | 9-0698 | Two (2) Cummins diesel-fired emergency generators each rated at 2940 horsepower. |
| 9-1203 (Generator – Bldg T30) | 9-1203 | One (1) Caterpillar C13 emergency generator rated at 609 horsepower. |
| 9-1204 (Gasoline Storage Tanks) | 9-1204 | One (1) small motor vehicle refueling station. |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description |
|------------------------------------|--------------------------------------|---|
| 9-1219 (Generator – Bldg 4) | 9-1219 | One (1) Perkins diesel-fired emergency generator rated at 835 horsepower. |
| 9-1273 (Gasoline Storage Tanks) | 9-1273 | One (1) aboveground gasoline storage tanks and dispensing equipment. |
| 9-1279 (Generator – Bldg 38A) | 9-1279 | One (1) Kohler diesel-fired emergency generator rated at 1910 kW. |

Table 3: Removed Emission Units

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description |
|--|--------------------------------------|---|
| 9-0633 (Gasoline Storage Tanks – Bldg 12) | 9-0633 | Two (2) 10,000 gallon gasoline underground storage tanks. |
| 9-1229 (Generator – Bldg 57) | 9-1229 | One (1) Cummins diesel-fired emergency generator rated at 2922 horsepower. |
| 9-1263 (Generator – Bldg 45) | 9-1263 | One (1) Cummins diesel-fired emergency generator rated at 2000 kW. |
| 9-1280 (Generator – Bldg 57) | 9-1280 | One (1) Caterpillar diesel-fired emergency generator rated at 1825 kW for temporary use. |
| 9-0881 (Generator – Bldg 10) | 9-0881 | One (1) Cummins 1500 kW emergency generator with a 2200 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. |

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

Several emission units at the NIH campus are subject to the following NSPS Requirements:

Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Subpart GG - Standards of Performance for Stationary Gas Turbines

Subpart IIII - Stationary Compression Ignition Internal Combustion Engines

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

NIH is not a major HAP Emissions Source. Instead, it is an area HAP emission source and is subject to the following area source HAP regulations:

Subpart JJJJJJ - Requirements for Existing Oil-Fired Boilers greater than or equal to 10 million Btu/hr heat input.

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

COMPLIANCE ASSURANCE MONITORING

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

NIH 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. There are no control devices associated with the equipment at NIH that require a CAM plan.

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GREENHOUSE GAS (GHG) EMISSIONS

NIH Bethesda Campus emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes (i.e., internal combustion engines, and boilers) contained within the facility premises applicable to NIH Bethesda Campus. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, emission certifications reports for the years 2019, 2020, and 2021, showed that NIH Bethesda Campus is a major source (threshold: 100,000tpy CO_{2e}) for GHG's (see Table 3 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 NIH Bethesda Campus based on its Annual Emission Certification Reports:

Table 4: Greenhouse Gases Emissions Summary

| GHG | Conversion factor | 2019 tpy CO_{2e} | 2020 tpy CO_{2e} | 2021 tpy CO_{2e} |
|-----------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Carbon dioxide CO ₂ | 1 | 232,315 | 217,622 | 1,916,163 |
| Methane CH ₄ | 25 | 10.91 | 10.07 | 8.56 |
| Nitrous Oxide N ₂ O | 298 | 4.70 | 4.60 | 0.11 |
| Total GHG CO _{2eq} | | 233,988 | 219,245 | 1,916,410 |

EMISSION UNIT IDENTIFICATION

NIH Bethesda Campus has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

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Table 5: Emission Unit Identification

| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|-------------------------------------|--------------------------------------|--|-----------------------------|
| 5-1024 (Boiler #5 – Bldg 11) | 5-1024 | One (1) Volcano International natural gas/No. 2 fuel oil fired boiler rated at 245 million Btu per hour heat input equipped with low NO _x burners and flue gas recirculation. | 1995 |
| 5-1156 (Cogeneration System – B/11) | 5-1156 | One (1) 23 MW Combustion Turbine Generator (CTG) and a 180,000 lb/hr heat recovery steam generator (HRSG). | July 2001 |
| 5-1198 (Boiler #1 – Bldg 11) | 5-1198 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1199 (Boiler #2 – Bldg 11) | 5-1199 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1200 (Boiler #3 – Bldg 11) | 5-1200 | One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1952 |
| 5-1201 (Boiler #4 – Bldg 11) | 5-1201 | One (1) Combustion Engineering natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO _x burner system. | 1968 |
| 5-2287 (Boiler – Bldg 62) | 5-2287 | One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input. | Jan 2013 |
| 5-2385 (Boiler – Bldg 82) | 5-2385 | One (1) Smith Cast Iron Boiler natural gas-fired boiler rated at 1.342 MMBtu/hr equipped with low-NO _x burner. | July 2015 |
| 5-2397 (Boiler – Bldg 15K) | 5-2397 | One (1) Lochinvar natural gas-fired boiler rated at 1.3 MMBtu/hr equipped with low-NO _x burner. | Oct 2017 |
| 5-2403 (Boiler – Bldg 11) | 5-2403 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. | Sept 2018 |
| 5-2404 (Boiler – Bldg 11) | 5-2404 | One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up. | Sept 2018 |
| 5-2518 (Boiler – Bldg T30) | 5-2518 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. | May 2020 |
| 5-2519 (Boiler – Bldg T30) | 5-2519 | One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr. | May 2020 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|----------------------------------|--------------------------------------|---|-----------------------------|
| 9-0474 (Generator – Bldg 59A) | 9-0474 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0475 (Generator – Bldg 59A) | 9-0475 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0476 (Generator – Bldg 59A) | 9-0476 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1997 |
| 9-0532 (Generator – Bldg 12A) | 9-0532 | One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1996 |
| 9-0533 (Generator – Bldg 12A) | 9-0533 | One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 1996 |
| 9-0561 (Generator – Bldg 45) | 9-0561 | One (1) Cummins 1000 kW emergency generator with a 1300 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1994 |
| 9-0562 (Generator – Bldg 10A) | 9-0562 | One (1) Cummins 700 kW emergency generator with a 1135 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1991 |
| 9-0568 (Generator – Bldg 49) | 9-0568 | One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1995 |
| 9-0582 (Generator – Bldg 37) | 9-0582 | One (1) Caterpillar 1640 kW emergency generator with a 2374 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1995 |
| 9-0583 (Generator – Bldg 50) | 9-0583 | One (1) Caterpillar 1825 kW emergency generator with a 2598 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1995 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|----------------------------------|--------------------------------------|--|-----------------------------|
| 9-0584 (Generator – Bldg 40) | 9-0584 | One (1) Caterpillar 725 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | March 2000 |
| 9-0599 (Generator – Bldg 29B) | 9-0599 | One (1) Caterpillar 1000 kW emergency generator with a 1428 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 1994 |
| 9-0698 (Generator – Bldg 11) | 9-0698 | Two (2) Cummins diesel-fired emergency generators each rated at 2940 horsepower. | Dec 2021 |
| 9-0728 (Generator – Bldg 35) | 9-0728 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0729 (Generator – Bldg 35) | 9-0729 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0730 (Generator – Bldg 35) | 9-0730 | One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Sept 2004 |
| 9-0764 (Generator – Bldg 33) | 9-0764 | One (1) Detroit Diesel 2000 kW emergency generator with a 2750 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2005 |
| 9-0783 (Generator – Bldg 6B) | 9-0783 | One (1) Cummins 500 kW emergency generator with a 755 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | May 2003 |
| 9-0784 (Generator – Bldg 14E) | 9-0784 | One (1) Onan 450 kW emergency generator with a 600 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | May 2003 |
| 9-0786 (Generator – Bldg 10B) | 9-0786 | One (1) Caterpillar 750 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Jan 1978 |
| 9-0787 (Generator – Bldg 11) | 9-0787 | One (1) Cummins 600 kW emergency generator with a 900 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | March 1995 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|----------------------------------|--------------------------------------|---|-----------------------------|
| 9-0872 (Generator – Bldg 6) | 9-0872 | One (1) Cummins 1250 kW emergency generator with a 1626 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Feb 2008 |
| 9-0914 (Generator – Bldg 38A) | 9-0914 | One (1) Caterpillar 1000 kW emergency generator with a 1480 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | April 2009 |
| 9-0920 (Generator – Bldg 12) | 9-0920 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0921 (Generator – Bldg 12) | 9-0921 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0922 (Generator – Bldg 12) | 9-0922 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0923 (Generator – Bldg 12) | 9-0923 | One (1) MTU 2000 kW emergency generator with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | June 2009 |
| 9-0968 (Generator – Bldg 59) | 9-0968 | One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2005 |
| 9-0969 (Generator – Bldg 59) | 9-0969 | One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | July 2004 |
| 9-0992 (Generator – Bldg 10F) | 9-0992 | One (1) Caterpillar 2000 kW emergency generator with a 2680 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Jan 2011 |
| 9-1015 (Generator – Bldg 31) | 9-1015 | One (1) Kohler 1000 kW emergency generator with a 1470 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | August 2011 |
| 9-1027 (Generator – Bldg 38) | 9-1027 | One (1) Kohler 474 kW emergency generator with a 635 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%. | Dec 2012 |
| 9-1153 (Generator – Bldg 57) | 9-1153 | Two (2) Cummins diesel fired emergency generators each rated at 1490 bhp. | Dec 2016 |

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| Emissions Unit Number | MDE - ARA Registration Number | Emissions Unit Name and Description | Date of Installation |
|------------------------------------|--------------------------------------|--|-----------------------------|
| 9-1163 (Generator – Bldg 11) | 9-1163 | One (1) MTU emergency diesel fired generators rated at 1500 kW with a 2,328 bhp engine. | July 2017 |
| 9-1164 (Generator – Bldg 11) | 9-1164 | One (1) MTU emergency diesel fired generators rated at 750 kW with a 1,193 bhp engine. | July 2017 |
| 9-1175 (Generator – Bldg 10E) | 9-1175 | One (1) Caterpillar diesel fired emergency generator rated at 2000 kW (2937 bhp) | Jan 2018 |
| 9-1203 (Generator – Bldg T30) | 9-1203 | One (1) Caterpillar C13 emergency generator rated at 609 horsepower. | June 2019 |
| 9-1204 (Gasoline Storage Tanks) | 9-1204 | One (1) small motor vehicle refueling station. | Sept 2019 |
| 9-1219 (Generator – Bldg 4) | 9-1219 | One (1) Perkins diesel-fired emergency generator rated at 835 horsepower. | Apr 2020 |
| 9-1229 (Generator – Bldg 57) | 9-1229 | One (1) Cummins diesel-fired emergency generator rated at 2922 horsepower. | Nov 2020 |
| 9-1263 (Generator – Bldg 45) | 9-1263 | One (1) Cummins diesel-fired emergency generator rated at 2000 kW. | Feb 2022 |
| 9-1273 (Gasoline Storage Tanks) | 9-1273 | One (1) aboveground gasoline storage tanks and dispensing equipment. | Dec 2022 |
| 9-1279 (Generator – Bldg 38A) | 9-1279 | One (1) Kohler diesel-fired emergency generator rated at 1910 kW. | Jan 2023 |
| 9-1280 (Generator – Bldg 57) | 9-1280 | One (1) Caterpillar diesel-fired emergency generator rated at 1825 kW for temporary use. | Dec 2022 |

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AN OVERVIEW OF THE PART 70 PERMIT

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

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

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

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

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

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

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate

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to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

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

Emissions Units: Boiler rated Greater than 100 MMBtu/hr

5-1024 (Boiler #5 – Bldg 11) - One (1) Volcano International natural gas/No. 2 fuel oil fired boiler rated at 245 million Btu per hour heat input. This unit has both flue gas recirculation and low NO_x burners to control NO_x emissions. The sulfur content of the No. 2 fuel oil is less than 0.3% or the maximum sulfur content allowed by law. Boiler #5 has an operational limit for No 2 fuel oil based on a 10 percent annual fuel oil capacity factor.

This boiler is subject to federal New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60, Subpart Db).

The Permittee agreed to limit the emissions of NO_x from boilers #1, #2, #3, #4 and boiler #5 to 81.7 tons per year as part of internal netting when the Permittee was issued a permit to construct for the cogeneration system on October 14, 1998. By limiting the emissions from boilers #1, #2, #3, #4, and #5, the Permittee was able to avoid major new source review for the cogeneration system. The annual limitation for the five boilers appears in the compliance tables for the cogeneration system.

Note: The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05A(2) – Visible Emissions.** “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a

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human observer are those that are equal to or greater than 10 percent opacity.

2. **COMAR 26.11.09.05A(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.”
3. The Permittee, on or after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. **[Authority 40 CFR §60.43b(f)]**

Compliance Demonstration

- The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring systems (COMS) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.
[Authority: 40 CFR §60.48b(a)]
- The Permittee is not required to install or operate COMS if the affected facility uses a PM CEMS to monitor PM emissions. **[Authority: 40 CFR §60.48b(j)(1)]**
- The Permittee, if complying with the PM emission limit by using a PM CEMS, must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in 40 CFR §60.46b(j). The CEMS specified in paragraph 40 CFR §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. **[Authority: 40 CFR §60.48b(j)(1)]**
- The Permittee shall properly operate and maintain the boiler in a manner to prevent visible emissions.
- The Permittee shall maintain an operation manual and prevention maintenance plan on site.
- The Permittee shall maintain a record of the maintenance performed that relates to combustion performance.
- The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, “Report of Excess Emissions and Deviations.”
[Authority: COMAR 26.11.03.06C]

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Rationale for Periodic Monitoring

Boilers firing natural gas during normal operation rarely cause visible emissions. Visible emissions would only occur if the boilers were not maintained or operated properly or when burning fuel oil.

The Permittee is required to maintain the boilers in good working order in accordance with an operations manual and preventive maintenance plan. Records of maintenance performed are sufficient to confirm that the boilers are maintained in a manner to prevent visible emissions when burning natural gas. If visible emissions occur, it will happen when burning No. 2 fuel oil. When fuel oil is used only low-sulfur content fuel oil is burned. A continuous opacity monitoring system (COMS) is not required provided that CEMS are in place.

B. Control of Sulfur Oxides Emissions

1. **COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment**. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:
 - a. All solid fuels, 1.0 percent;
 - b. **Distillate fuel oils, 0.3 percent;**
 - c. Residual fuel oils, 1.0 percent. “

Note: *Compliance demonstration with 40 CFR §60.42b(j) will be used to comply with this standard*

2. The Permittee shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; (2) or maintaining fuel receipts as described in §60.49b(r). **[Authority: 40 CFR §60.42b(j)]**

Note: *The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control*

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of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption. [Authority: COMAR 26.11.02.09A and 40 CFR §63.11237]

Compliance Demonstration

The Permittee shall obtain a certification from the fuel supplier indicating that the No. 2 fuel oil is in compliance with the limitation on the sulfur content of the fuel oil. **[Authority: 40 CFR §60.45b(j)].**

The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purpose of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil. **[Authority: 40 CFR §60.49b(r)]**

The Permittee, being subject to sulfur dioxide standards under 40 CFR §60.42b, shall submit reports. The reporting period for the reports required is each six-month period. All reports shall be submitted to the Administrator (The Department) and shall be postmarked by the 30th day following the end of the reporting period. **[Authority: 40 CFR §60.49b(j) and §60.49b(s)]**

Maintaining records of sulfur content certifications from the fuel supplier and reporting this information semiannually are sufficient to demonstrate compliance with this requirement.

C. Control of Nitrogen Oxides Emissions

1. COMAR 26.11.09.08B(1) – Control of NO_x Emissions for Major Stationary Sources. “Emission Standards and Requirements.

- a. A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.
- b. (b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.
- c. (c) Emission Standards in Pounds of NO_x per Million Btu of heat input.”

| Fuel | Tangential- Fired | Wall-Fired |
|---------|-------------------|------------|
| Gas/Oil | 0.25 | 0.25 |

Note: *Compliance demonstration with §60.44b(a) will be used to comply with this standard*

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2. The Permittee, on and after the date on which the initial performance test is completed or is required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere any gases that contain nitrogen oxides (expressed as NO₂) in excess of 0.10 lb/mmBtu based on low heat release rate and 0.2 lb/mmBtu based on high heat release rate. **[Authority: 40 CFR §60.44b(a)]**
3. The Permittee, to determine compliance with the emission limits for nitrogen oxides required under 40 CFR §60.44b, shall conduct a performance test as required under 40 CFR §60.8 using the continuous system for monitoring nitrogen oxides under 40 CFR §60.48(b). **[Authority: 40 CFR §60.46b(e)]**

Compliance Demonstration

The Permittee shall install, calibrate, maintain, and operate Continuous Emission Monitoring Systems (CEMS) for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system.

[Authority: 40 CFR §60.48b(b)(1)]

The CEMS required under 40 CFR §60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. **[Authority: 40 CFR §60.48b(c)]**

The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by 40 CFR §60.48b(b) and required under 40 CFR §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR §60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR §60.13(h)(2).

[Authority: 40 CFR §60.48b(d)]

The procedures under 40 CFR §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems (CEMS).

[Authority: 40 CFR §60.48b(e)]

When NO_x emission data is not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved Authority methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. **[Authority: 40 CFR §60.48b(f)]**

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The Permittee shall maintain records of the following information for each operating day:

- a. Calendar date;
- b. The average hourly NO_x emission rates (expressed as NO₂) (ng/J or lb/MMBtu heat input) measured or predicted;
- c. The 30-day average NO_x emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;
- d. Identification of the steam generating unit operating days when the calculated 30-day average NO_x emission rates are in excess of the NO_x emissions standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;
- e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;
- f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;
- g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
- h. Identification of the times when the pollutant concentration exceeded full span of the CEMS;
- i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and
- j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part. **[Authority: 40 CFR 60.49b(g)]**

The Permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR Part 60, Subpart Db. **[Authority: 40 CFR §60.49b(b)]**

The Permittee is required to submit excess emissions reports for any excess emissions which occurred during the reporting period. **[Authority: 40 CFR §60.49b(h)]**

The Permittee shall submit reports containing the information recorded under paragraph (g) of 40 CFR §60.49b and submit excess emission reports for any excess emissions that occurred during the reporting period. **[Authority: 40 CFR §60.49b(h)(2) & (i)]**

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Rationale for Monitoring Strategy

Subpart Db includes all of the continuous monitoring, record keeping, and reporting requirements to demonstrate compliance with applicable NO_x limits. No additional monitoring is required.

D. Operational Limit

1. The boiler shall use low NO_x burners and a flue gas recirculation system for NO_x emission control. **[Authority: MDE Permit to Construct No. 15-5-1024]**
2. The annual capacity factor for distillate oil shall not exceed 10 percent. (The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a calendar year, and the potential heat input to the steam generating unit had it been operating for 8760 hours during the calendar year at the maximum design heat input capacity). **[Authority: MDE Permit to Construct No. 15-5-1024]**
3. The Permittee shall log the hours of operation on No. 2 fuel oil for the boiler. **[Authority: COMAR 26.11.03.06C]**
4. The total NO_x emissions from boilers #1, 2, 3, 4, and 5 shall not exceed 81.7 tons per year. **[Authority: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]**

Compliance Demonstration

The Permittee shall calculate the capacity factor for the previous rolling 12-month period the end of each month. The Permittee shall maintain a record of the annual capacity factor. **[Authority: COMAR 26.11.03.06C and §60.49b(d)]**

The Permittee shall maintain a log the hours of operation for the boiler on No. 2 fuel oil. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall submit to the Department the annual capacity factor with the annual emissions certification report due April 1. **[Authority: MDE Permit to Construct No. 15-5-1024]**

The Permittee shall submit the total number of hours of operation for the boiler on No. 2 fuel oil with the annual emissions certification report due April 1. **[Authority: COMAR 26.11.03.06C]**

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Rationale for Monitoring Strategy

The boiler is already equipped with a low NO_x burner and flue gas recirculation to meet this operational limit. Calculating the capacity factor and maintain records of the capacity factor and hours of operation are sufficient to meet the operational limit requirements. No additional monitoring is required.

Emissions Unit Number(s): 5-1156 (Cogeneration System – B/11)

Cogeneration System: Cogeneration utility system consists of one (1) 23 Megawatt Combustion Turbine Generator (CTG) and a 180,000 lb/hr Heat Recovery Steam Generator (HRSG). The CTG consists of an ABB GT10 gas turbine with dry combustion low NO_x ABB EV burner system that burns natural gas. The HRSG consist of an exhaust gas waste heat recovery boiler with a supplemental steam generator that generates an addition 63 million Btu's per hour. The HRSG is capable of operating on both natural gas and No. 2 fuel oil.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05A(2) – Visible Emissions.** “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.
2. **COMAR 26.11.09.05A(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.”
3. The Permittee, on and after the date on which the initial performance test is completed or required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than **20 percent opacity** (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. **[Authority: 40 CFR §60.43c(c)]**

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4. The Permittee shall adhere to the PM and opacity standards under this section at all times, except during periods of startup, shutdown, or malfunction. **[Authority: 40 CFR §60.43c(d)]**

Compliance Demonstration

The Permittee shall:

1. Properly operate and maintain the boiler; and
2. Verify no visible emissions when burning No. 2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year.
3. Maintain an operation manual and prevention maintenance plan on site;
4. Maintain a record of the maintenance performed that relates to combustion performance;
5. Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
6. Maintain a record of the hours that No. 2 fuel oil is burned. **[Authority: COMAR 26.11.03.06C].**

The Permittee shall perform the following, if emissions are visible to human observer:

1. Inspect combustion control system and boiler operations,
2. Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
3. Document in writing the results of inspections, adjustments and/or repairs to the boiler.
4. After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when the boilers are operating on No. 2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations."

Rationale for Periodic Monitoring Strategy

When burning natural gas, the boiler should not cause visible emissions if properly operated and maintained. Keeping records of maintenance will demonstrate that the boiler is properly maintained. Periodic visible emissions observations when burning oil and follow up actions to eliminate any visible emissions are sufficient to ensure compliance with the applicable standards.

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B. Control of Sulfur Oxides Emissions

1. **COMAR 26.11.09.07A(2)** – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:
 - a. All solid fuels, 1.0 percent;
 - b. **Distillate fuel oils, 0.3 percent;**
 - c. Residual fuel oils, 1.0 percent.”
Note: Compliance demonstration with 40 CFR 60.42c will be used to comply with this standard.
2. The Permittee, on and after the date on which the initial performance test is completed or required to be completed under 40 CFR §60.8, whichever date comes first, shall not cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million Btu) heat input while burning oil; or, as an alternative, the Permittee shall not combust oil in the affected facility that contains greater than **0.5 weight percent sulfur**. The percent reduction requirements are not applicable to affected facilities under this paragraph. **[Authority: 40 CFR §60.42c(d)]**
3. The Permittee, on and after the date on which the performance test required to be conducted by 40 CFR §60.8 is completed, every owner or operator subject to the provision of subpart GG shall comply with one or the other of the following conditions:
 - a. No owner or operator subject to the provisions of subpart GG shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contains sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.
 - b. No owner or operator subject to the provisions of subpart GG shall burn in any stationary gas turbine any fuel which contains total sulfur in excess of **0.8 percent by weight (8000 ppmw)**. **[Authority: 40 CFR §60.333]**

Note: Compliance demonstration with 40 CFR 60.42c will be used to comply with this standard

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Compliance Demonstration

The Permittee must conduct a biennial performance tune-up no more than 25 months after the previous tune-up or initial startup of a new boiler. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Authority: 40 CFR §63.11223(a) and (b)]**

The Permittee must conduct a biennial tune-up of the boiler to demonstrate continuous compliance as specified below:

- a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).
- b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
- c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).
- d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.
- f. Maintain onsite and submit, if requested, a report containing the following information:
 - i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler.
 - ii. A description of any corrective actions taken as a part of the tune-up of the boiler.
 - iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit.

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- iv. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. **[Authority: 40 CFR §63.11223(b)(1) through (7)]**

The Permittee conduct the following sulfur monitoring for NSPS:

1. Analytical Methods: Analyses indicating the fuel sulfur content of the pipeline quality natural gas will be provided by the natural gas supplier, or performed using one of the approved ASTM Authority methods specified in 40 CFR 60.335(b) for the measurement of sulfur in gaseous fuels, or an approved alternative method. **[Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002]**
2. Monitoring Frequency: Effective the date the NIH Cogeneration System completes emission/compliance testing, representative fuel sulfur analyses will be obtained on a quarterly basis. If this indicates consistent compliance with sulfur limits in 40 CFR 60.333, for eight consecutive quarters, then representative sulfur analyses shall be obtained once per year thereafter. **[Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002]**
3. Non-compliance Procedure: Should any sulfur analysis indicate non-compliance with sulfur limits in 40 CFR 60.333, the owner or operator shall notify the MDE and the EPA of any excess emissions and the custom schedule shall be reexamined by the Maryland Department of the Environment. In this event, representative natural gas fuel and fuel oil sulfur analyses shall be obtained monthly until; this custom monitoring schedule has been re-examined, approved and implemented. **[Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002]**

All fuel monitoring records pertaining to the Alternative Fuel Monitoring Schedule will be retained on site for at least five years. **[Authority: NIH Alternative Fuel Monitoring Plan dated October 23, 2002]**

The Permittee shall record and maintain records of the amounts of each fuel combusted during each day. **[Authority: 40 CFR §60.48c(g)]**

The Permittee shall submit to the Department all fuel monitoring records pertaining to the Alternative Monitoring Schedule after every six-month period. **[Authority: COMAR 26.11.03.06C]**

The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. **[Authority: 40 CFR §60.48c(j)]**

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Rationale for Periodic Monitoring Strategy

NIH operates under a Department-approved Alternative Fuel Monitoring Plan that outlines how the fuels shall be monitored and analyzed for sulfur content. The plan also includes actions that are required if an analysis indicates non-compliance. The plan is sufficient to demonstrate compliance with the applicable sulfur limitations.

C. Control of Nitrogen Oxides Emissions

1. **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 and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request;
 - d. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - e. Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”
2. **COMAR 26.11.09.08G(2)** – 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 a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_x emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive.”

Note: Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

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3. The Permittee shall not cause to be discharged into the atmosphere from any stationary gas turbines, any gases which contain nitrogen oxides in excess of :

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

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

Y = manufacturer's rated heat rate at manufacture'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.

F = NO_x emissions allowance for fuel-bound nitrogen as defined in paragraph 40 CFR §60.332(a)(4).

[Authority: 40 CFR §60.332(a)(2) and §60.332(d)]

Note: Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

4. The Permittee shall not discharge into the atmosphere from the stationary gas turbine NO_x emission in excess of 45 ppmdv (15 percent oxygen on a dry basis) averaged on a 1-hour basis when using fuel oil and 15 ppmdv (15 percent oxygen on a dry basis) when burning natural gas. **[Authority: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]**

Compliance Demonstration

The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the quality assurance criteria of 40 CFR Part 60, Appendix F, as amended, which is incorporated by Authority, or, if applicable, the quality assurance criteria of 40 CFR Part 75, Appendix B, as amended. **[COMAR 26.11.01.11C]**

The Permittee shall maintain CEM data collected and results of CEM QA/QC activities. **[Authority: COMAR 26.11.01.01E]**

The Permittee shall comply with **COMAR 26.11.01.11E** - CEM Reporting Requirements:

1. **COMAR 26.11.01.11E(1)** – CEM System Downtime Reporting Requirements.

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- a. "All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown. "
 - b. "The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data."
2. **COMAR 26.11.01.11E(2) – CEM Data Reporting Requirements.**
- a. "All test results shall be reported in a format approved by the Department."
 - b. "Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data."
 - c. "A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:
 - i. The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
 - ii. The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
 - iii. The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data;
 - iv. Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
 - v. Quarterly quality assurance activities;
 - vi. Daily calibration activities that include Authority values, actual values, absolute or percent of span differences, and drift status; and
 - vii. Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."

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Rationale for Monitoring Strategy

NO_x emissions will be monitored by a CEM to demonstrate compliance with the applicable NO_x emissions limits. COMAR 26.11.09.08 outlines the methods and procedures necessary to comply with the NO_x RACT capacity factor and training requirements. No additional monitoring is necessary.

D. Operational Limit

Total NO_x emissions from the Cogeneration System shall not exceed 55.6 tons per year. **[Authority: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]**

Compliance Demonstration

The Permittee shall calculate the total NO_x emissions from the cogeneration system and boilers 1 thru 5 at the end of each month for the month and the previous 12-month rolling period. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall maintain records of the total NO_x emissions calculated on a rolling 12-month period. **[Authority: COMAR 26.11.03.06C].**

The Permittee shall report the total NO_x emissions from the Cogeneration System and Boilers #1 thru #5 in the emission certification report due on April 1 of each year. **[Authority: COMAR 26.11.03.06C]**

Monthly NO_x emissions calculations and recording the results on a rolling 12-month basis demonstrates compliance with the limit. Reporting the results every year will ensure that the Department is aware of the compliance status as needed. No periodic monitoring is required.

Emission Units: Boilers Exempt from NSPS

5-1198 (Boiler #1 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.

5-1199 (Boiler #2 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.

5-1200 (Boiler #3 – Bldg 11): One (1) Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.

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5-1201 (Boiler #4 – Bldg 11): One (1) Combustion Engineering natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NO_x burner system.

These four (4) boilers (#1 thru #4) are not subject to federal New Source Performance Standards for steam generating units. These four (4) boilers were installed prior to the applicability of NSPS for steam generating units, and the boilers have not been modified or reconstructed in a manner that triggered NSPS applicability.

The Permittee agreed to limit the emissions of NO_x from these four boilers (#1 thru #4) and boiler #5 to 81.7 tons per year as part of internal netting when the Permittee was issued a permit to construct for the cogeneration system on October 14, 1998. By limiting the emissions from boilers #1 thru #4, and #5, the Permittee was able to avoid major new source review for the cogeneration system. The annual limitation for the five boilers appears in the compliance tables for the cogeneration system.

Note: The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

Applicable Standards and limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05A(2) – Visible Emissions.** “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.
2. **COMAR 26.11.09.05A(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.”

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Compliance Demonstration

The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." **[Authority: COMAR 26.11.03.06C]**

B. Control of Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

- a. All solid fuels, 1.0 percent;
- b. **Distillate fuel oils, 0.3 percent;**
- c. Residual fuel oils, 1.0 percent."

***Note:** The Permittee shall burn only natural gas or No. 2 fuel oil only during periods of gas curtailment, gas supply emergencies, or periodic testing of liquid fuel in the boilers unless the Permittee obtains an approval from the Department to burn alternate fuels. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.*

*Period of natural gas curtailment or supply interruption means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption. **[Authority: COMAR 26.11.02.09A and 40 CFR §63.11237]***

Compliance Demonstration and Rationale for Periodic Monitoring Strategy

The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil. **[Authority: COMAR 26.11.03.06C]**

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

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

Maintaining records of sulfur content certifications from the fuel supplier is sufficient to demonstrate compliance with this requirement.

C. Control of Nitrogen Oxides Emissions

COMAR 26.11.09.08B(1) - Control of NO_x Emissions for Major Stationary Sources. "Emission Standards and Requirements.

- a. A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.
- b. Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.
- c. Emission Standards in Pounds of NO_x per Million Btu of heat input."

| Fuel | Tangential- Fired | Wall-Fired |
|---------|-------------------|------------|
| Gas/Oil | 0.25 | 0.25 |

Compliance Demonstration

The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing.

The Permittee shall measure once a week, for a 15 minute period, the NO_x content of the flue gases from each boiler which operated during that week. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specifications. The analyzer shall be the type approved by the Department. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The basis for the monitoring, record keeping and reporting requirements is the Department's authority to create periodic monitoring requirements, COMAR 26.11.03.06C.

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Rationale for Periodic Monitoring Strategy

To verify that the boilers are operating at NO_x emission rates similar to the rates measured during the compliance stack tests, the Permittee shall measure the NO_x concentrations in the stack gases once a week of operations (168 hours). The Permittee may use a portable analyzer rather than a continuous emissions monitoring system.

The portable analyzer must be calibrated and maintained in accordance with vendor specifications. Periodic stack tests and weekly NO_x measurements are sufficient to show the boiler is operating in compliance with the applicable limit.

D. Operational Limit

The Permittee shall log the hours of operation on No. 2 fuel oil for each boiler.
[Authority: COMAR 26.11.03.06C]

Compliance Demonstration

The Permittee shall maintain a log the hours of operation for each boiler on No. 2 fuel oil. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall submit the total number of hours of operation for each boiler on No. 2 fuel oil with the annual emissions certification report due April 1. **[Authority: COMAR 26.11.03.06C]**

No periodic monitoring is required to demonstrate compliance with the operational limit.

Emissions Unit Number(s): Back-up Boilers

5-2403 (Boiler #6 – Bldg 11): One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up.

5-2403 (Boiler #7 – Bldg 11): One (1) Cleaver Brooks natural gas-fired boiler rated at 94.7 MMBtu/hr with No. 2 fuel oil as back up.

These boilers will provide 75,000 lbs per hour of steam each to meet the facility's heating demands during winter and while the existing boilers and/or cogeneration plant are out of service for maintenance. These boilers were originally planned to be temporary, and trailer mounted, however on March 07, 2018 the Department received a letter from the facility saying that the boilers would no longer be trailer mounted and therefore would no longer be classified as

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temporary. The proposed boilers will only operate when the existing equipment (Boilers 1 through 5 and the Cogeneration System) are unable to operate or in standby mode (10% max load) to prevent freezing.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05A(2) – Visible Emissions.** “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.
2. **COMAR 26.11.09.05A(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 properly operate and maintain the boilers in a manner to prevent visible emissions. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, “Report of Excess Emissions and Deviations.” **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring for Visible Emissions and Opacity

Natural gas boilers during normal operation rarely cause visible emissions. Visible emissions would only occur if the boilers were not maintained or operated properly or when burning fuel oil. The Permittee is required to maintain the boilers in good working order in accordance with an operations manual and preventive maintenance plan. Records of maintenance performed are sufficient to confirm that the boilers are maintained in a manner

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to prevent visible emissions when burning natural gas. Since low-sulfur content fuel oil is only burned as a back-up fuel when natural gas is not available, a continuous opacity monitoring system (COMS) is not required provided that a site-specific monitoring plan is in place. Periodic opacity tests when burning oil are sufficient to ensure that the opacity standard is met.

B. Control of Sulfur Oxides Emissions

1. **COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment**. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:
 - a. All solid fuels, 1.0 percent;
 - b. **Distillate fuel oils, 0.3 percent;**
 - c. Residual fuel oils, 1.0 percent.”
2. The Permittee shall not cause to be discharged into the atmosphere any gases that contain SO₂ in excess of 215 ng/J (0.5 lb/million Btu) heat input; or, as an alternative, the Permittee shall not combust oil that contains greater than 0.5 weight percent sulfur. Fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction.
[Authority: 40 CFR §60.42c(d) and (i)]

Note: *Compliance with COMAR 26.11.09.07 demonstrates compliance with this requirement.*

Compliance Demonstration

The performance test shall consist of the certification from the fuel supplier, as described in 40 CFR §60.48c(f). **[Authority: 40 CFR §60.44c(h)]**

The Permittee shall demonstrate compliance with the fuel oil sulfur limit based on a certification from the fuel supplier, as described in 40 CFR §60.48c(f). **[Authority: 40 CFR §60.42c(h)(1)]**

The Permittee shall maintain records of the following:

- (a) If fuel oil is used in the boilers, the Permittee must provide documentation from a Curtailment Service Provider (CSP) that a curtailment occurred; and
- (b) Monthly records of total natural gas and No. 2 fuel oil usage in the previous 12-month period for the three (3) boilers.

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The Permittee shall submit fuel supplier certifications that include the following information:

- (a) The name of the oil supplier;
 - (b) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil 40 CF §60.41c; and
 - (c) The sulfur content or maximum sulfur content of the oil.
- [Authority: 40 CFR §60.48c(f)(1)]**

Rationale for Periodic Monitoring Strategy for SO_x

40 CFR 60, Subpart Dc requires semiannual reports demonstrating that the fuel meets the applicable sulfur content requirements. No additional monitoring requirements are necessary to demonstrate compliance.

C. Control of Nitrogen Oxides Emissions

- (1) 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.”
- (2) COMAR 26.11.09.08E, Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less.

“A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

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

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- (5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.”
- (3) In order to avoid triggering non-attainment new source review (NA-NSR), the Permittee shall limit the emissions of NO_x from the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) to less than 25 tons, in any rolling consecutive 12-month period. **[Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**

Compliance Demonstration

Perform a combustion analysis for each boiler at least once each year and optimize combustion based on the analysis. **[Authority: COMAR 26.11.09.08E(2)]**

Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors. **[Authority: COMAR 26.11.09.08E(4)]**

The Permittee shall maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request. **[Authority: COMAR 26.11.09.08E(3)]**

The Permittee shall prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request. **[Authority: COMAR 26.11.09.08E(5)]**

The Permittee shall submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each. **[Authority: COMAR 26.11.09.08E(1)]**

In order to avoid triggering non-attainment new source review (NA-NSR), the Permittee shall calculate and record the NO_x emissions of the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) for each previous calendar month and a total for the previous 12 consecutive calendar months. The calculations and records shall be updated monthly, within the first 15 days of each following month. **[Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**

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The Permittee shall maintain and shall make available to the Department upon request, records of the following information:

- a. Monthly records of fuel usage.
- b. The operating and maintenance plan developed to minimize NOx emissions and records of all maintenance performed on each boiler. **[Authority: COMAR 26.11.01.05 and Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**

The Permittee shall submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each. **[Authority: COMAR 26.11.09.08E(1)]**

The Permittee shall submit to the Department and the EPA, no later than 30 days after the end of the six months reporting period, NOx emissions for each previous calendar month and a total for the previous 12 consecutive calendar months. **[Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**

Periodic Monitoring Strategy for Control of NOx

Annual NOx emission reports required by Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404 will be used to demonstrate compliance with these requirements. Calculations and records of monthly and rolling 12-month NOx emissions from the boilers will show whether the boilers are in compliance with the 25 tons per rolling 12-month period NOx limit.

D. Operational Limit

1. The two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) shall be operated as backup for existing units only. The Permittee may operate the two (2) backup boilers (MDE Registration Nos. 031-0324-5-2403 and 5-2404) only when one or more of Boilers #1 through #5 (MDE Registration Nos. 031-0324-5-1024 and 5-1198 through 5-1201) or the Cogeneration System (MDE Registration No. 031-0324-5-1156) are not in use. Exceptions to this regulation include maintenance, testing, and the purpose stated in Condition 2 below. **[Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**
2. The Permittee may operate the two (2) natural gas fired Cleaver Brooks boilers, each rated at 94.7 MMBtu/hr with diesel backup (MDE Registration Nos. 031-0324-5-2403 and 5-2404) on stand-by mode, at 10% of

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maximum capacity or less, when the daily forecasted temperature is below freezing as necessary. **[Authority: Permit to Construct No. 031-0324-5-2403 & 031-0324-5-2404]**

3. In order to remain exempt from the requirements in 40 CFR Part 63, Subpart JJJJJJ, the Permittee shall ensure that the two (2) boilers meet the following definition of gas-fired boilers:

“Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.” **[Authority: 40 CFR §63.11195(e) and 40 CFR §63.11237]**

Compliance Demonstration

The Permittee shall maintain a log the hours of operation for each boiler on No. 2 fuel oil. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall submit the total number of hours of operation for each boiler on No. 2 fuel oil with the annual emissions certification report due April 1. **[Authority: COMAR 26.11.03.06C]**

Rationale for Periodic Monitoring Strategy for Operational Limit

Operation log and records of the quantity and type of fuels burned are sufficient to show when the boilers operated to demonstrate compliance with the limits.

Emissions Unit Number(s): Boilers rated less than 10 MMBtu/hr

5-2287 (Boiler – Bldg 62): One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input – Request for Coverage.

5-2397 (Boiler – Bldg 15K): One (1) natural gas fired Lochinvar SBN-1300 boiler rated at 1.3 million Btu per hour heat input – Request for Coverage.

5-2385 (Boiler – Bldg 82): One (1) Smith Cast Iron Boiler natural gas-fired boiler rated at 1.342 MMBtu/hr equipped with low-NOx burner.

5-2397 (Boiler – Bldg 15K): One (1) Lochinvar natural gas-fired boiler rated at 1.3 MMBtu/hr equipped with low-NOx burner.

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5-2518 (Boiler – Bldg T30): One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr.

5-2519 (Boiler – Bldg T30): One (1) Lochinvar BL-FBN-2500 natural gas-fired boiler rated at 2.3 MMBtu/hr.

The boiler is not subject to 40 CFR Part 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr). These boilers are less than 10 million Btu per hour heat input.

Applicable Standards and limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05A(2) – Visible Emissions.** “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.
2. **COMAR 26.11.09.05A(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 properly operate and maintain the boilers in a manner to prevent visible emissions. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. **[Authority: COMAR 26.11.03.06C]**

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The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
[Authority: COMAR 26.11.03.06C]

Rationale for Periodic Monitoring Strategy

Properly operated and maintained natural gas boilers of this size will not cause visible emissions. Keeping records of maintenance demonstrates that the boilers are properly maintained to prevent visible emissions.

B. Control of Nitrogen Oxides Emissions

1. **COMAR 26.11.09.08F(1) – Control of NO_x Emissions for Major Stationary Sources. Requirements for Space Heaters.** "A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
 - a. Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
 - c. Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;
 - d. Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - e. Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."
2. **COMAR 26.11.09.08F(2) – Control of NO_x Emissions for Major Stationary Sources. Requirements for Space Heaters.** "A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify, and shall meet the applicable fuel-burning equipment RACT requirement in this regulation."
3. **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."

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

Compliance Demonstration

The Permittee shall develop and implement an operating and maintenance plan as recommended by the equipment vendor to minimize NO_x emissions. **[Authority: COMAR 26.11.09.08F(1)]**

The Permittee shall maintain the operating and maintenance plan at the premises. **[Authority: COMAR 26.11.09.08F(1)(c)]**

The Permittee shall maintain records of the operator training program attendance for each operator on the site for at least 5 years. **[Authority: COMAR 26.11.09.08F(1)(e)]**

The Permittee shall maintain records of fuel use which demonstrate that the boiler meets the definition of a space heater. **[Authority: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C]**

The Permittee shall submit a list of trained operators and training program attendance to the Department upon request. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall inform the Department no later than 60 days after the date when the boilers no longer qualify as a space heater, and shall meet the requirements under COMAR 26.11.09.08E or identify an alternative NO_x RACT requirement under COMAR 26.11.09.08 with which the source will comply. **[Authority: COMAR 26.11.09.08F(2)]**

Rationale for Periodic Monitoring Strategy

COMAR 26.11.09.08 outlines the methods and procedures necessary to comply with the NO_x RACT requirements. No additional monitoring is necessary.

C. Operational Limitations

The Permittee shall burn only natural gas unless the Permittee applies for and receives an approval or permit from the Department to burn an alternative fuel. **[Authority: COMAR 26.11.02.09A]**

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Compliance Demonstration

The Permittee shall maintain a record of the quantity of each type of fuel burned. **[Authority: COMAR 26.11.02.19C(1)(c)]**

The Permittee shall submit a record of the quantity of each type of fuel burned with the annual emission certification report that is due April 1 of each year. **[Authority: COMAR 26.11.02.19C(2)]**

Records of fuel type and usage are sufficient to demonstrate compliance with these requirements. No periodic monitoring is required.

Emission Unit Number(s): NSPS Emergency Generators

9-0872 (Generator – Bldg 6) – One (1) Cummins 1250 kW emergency generator with a 1626 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0914 (Generator - Bldg 38A) – One (1) Caterpillar 1000 kW emergency generator with a 1480 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0920 thru 9-0923 (Generator - Bldg 12) – Four (4) MTU 2000 kW emergency generators each with a 2940 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0992 (Generator - Bldg 10F) – One (1) Caterpillar 2000 kW emergency generator with a 2680 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-1015 (Generator - Bldg 31) – One (1) Kohler 1000 kW emergency generator with a 1470 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-1027 (Generator – Bldg 38) – One (1) Kohler 474 kW emergency generator with a 635 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-1153 (Generator – Bldg 57) – Two (2) Cummins diesel fired emergency generators each rated at 1490 bhp.

9-1163 (Generator – Bldg 11) – One (1) MTU diesel fired emergency generator rated at 1,500 kW with a 2,328 bhp engine.

9-1164 (Generator – Bldg 11) – One (1) MTU diesel fired emergency generator rated at 750 kW with a 1,193 bhp engine.

9-1175 (Generator – Bldg 10E) – One (1) Caterpillar diesel fired emergency generator rated at 2000 kW (2937 bhp)

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9-1203 (Generator – Bldg T30) – One (1) Caterpillar C13 emergency generator rated at 609 horsepower.

9-1219 (Generator – Bldg 4) – One (1) Perkins diesel-fired emergency generator rated at 835 horsepower.

9-1279 (Generator – Bldg 38A) – One (1) Kohler diesel-fired emergency generator rated at 1910 kW.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05E(2), Emissions During Idle Mode.** “A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.”
2. **COMAR 26.11.09.05E(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.”
3. **COMAR 26.11.09.05E(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 properly operate and maintain the engine in a manner to minimize visible emissions. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Authority: COMAR 26.11.03.06C]**

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- The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations" [**Authority: COMAR 26.11.03.06C**]

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), 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: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Note: *Installations subject to 40 CFR Part 60 Subpart IIII must comply with the diesel fuel standards of §60.4207 which limits the maximum sulfur content of fuel to 15 ppm.*

Compliance Demonstration

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

[Authority:: COMAR 26.11.03.06C]

The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. **[Authority:: COMAR 26.11.09.07C]**

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

C. Control of Nitrogen Oxides

1. 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.

2. COMAR 26.11.09.08G, Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.

- a. 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:

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- i. Provide certification of the capacity factor of the equipment to the Department in writing;
- ii. 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;
- iii. 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;
- iv. 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
- v. 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

- The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Authority: COMAR 26.11.09.08G(1)(b)]**
- For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. **[Authority: COMAR 26.11.03.06C].**
- The Permittee shall calculate the capacity factor of the engine within 30 days after the end of each month. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall maintain records of the results of the combustion analyses and any stack tests on site for at least five years and make them available to the Department and EPA upon request. **[Authority: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].**
- The Permittee shall maintain a record of the calculated capacity factor. **[Authority: COMAR 26.11.09.08G(1)(c)].**
- The Permittee shall maintain record of training program attendance for each operator on site for at least five years and make the records available to the Department upon request. **[Authority: COMAR 26.11.09.08G(e) & COMAR 26.11.03.06C]**

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- The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. **[Authority: COMAR 26.11.03.06C]**.
- The Permittee shall submit a list of trained operators to the Department upon request. **[Authority: COMAR 26.11.09.08G(e) and COMAR 26.11.03.06C]**

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtains a Permit to Construct from the Department to burn alternate fuel. **[Authority: COMAR 26.11.02.09A]**
2. The Permittee must operate and maintain the generators in a manner that achieve the emissions standards over the entire life of the engine. **[Authority: 40 CFR §60.4206]**
3. The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §80.510(b) as follows:
 - a. Maximum sulfur content 15 ppm and
 - b. Minimum cetane index of 40; or
 - c. Maximum aromatic content of 35 volume percent. **[Authority: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]**
4. The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission related written instruction. **[Authority: 40 CFR §60.4211(a)(1)]**
5. The Permittee may change only those emission related settings that are permitted by the manufacturer. **[Authority: 40 CFR §60.4211(a)(2)]**
6. The Permittee must purchase an engine certified to the emission standards in 40 CFR §60.4205(b). The engine must be installed and configured according to the manufacturer's emissions related specifications. **[Authority: 40 CFR §60.4211(c)]**
7. The Permittee must not exceed the following opacity emission standards:
 - (a) 20 percent during the acceleration mode;
 - (b) 15 percent during the lugging mode; and

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

Note: *Compliance with this condition will be demonstrated by the purchase of a certified engine and operating that engine as required under 40 CFR §60.4211(c).*

8. There is no time limit on the use of emergency stationary ICE (internal combustion engine) in emergency situations. **[Authority: 40 CFR §60.4211(f)(1)]**
9. The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Authority: 40 CFR §60.4211(f)(2)(i)]**
10. The Permittee may operate the emergency stationary ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in the previous paragraph of this section. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **[Authority: 40 CFR §60.4211(f)(3)]**

Compliance Demonstration

- The Permittee shall monitor fuel usage for the generator. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. **[Authority: COMAR 26.11.03.06C].**

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- The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine;
 - b. The installation date of each emergency diesel generator; and
 - c. The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b). **[Authority: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013]**
- Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years. **[Authority: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013 and MDE Permit to Construct No. 510-0077-9-1378 & 1382 issued October 20, 2018]**
- The Permittee shall report a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. **[Authority: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013 and MDE Permit to Construct No. 510-0077-9-1378 & 1382 issued October 20, 2018]**

Emission Unit Number(s): NESHAP Emergency Generators

9-0474 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0475 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0476 (Generator – Bldg 59A) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0532 (Generator – Bldg 12A) – One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

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9-0533 (Generator – Bldg 12A) – One (1) Katolight 1000 kW emergency generator with a 1550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0561 (Generator – Bldg 45) – One (1) Cummins 1000 kW emergency generator with a 1300 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0562 (Generator – Bldg 10A) – One (1) Cummins 700 kW emergency generator with a 1135 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0568 (Generator – Bldg 49) – One (1) Caterpillar 1500 kW emergency generator with a 2168 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0582 (Generator – Bldg 37) – One (1) Caterpillar 1640 kW emergency generator with a 2374 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0583 (Generator – Bldg 50) – One (1) Caterpillar 1825 kW emergency generator with a 2598 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0584 (Generator – Bldg 40) – One (1) Caterpillar 725 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0599 (Generator – Bldg 29B) – One (1) Caterpillar 1000 kW emergency generator with a 1428 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0728 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0729 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0730 (Generator – Bldg 35) – One (1) Detroit Diesel 1700 kW emergency generator with a 2550 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0764 (Generator – Bldg 33) – One (1) Detroit Diesel 2000 kW emergency generator with a 2750 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0783 (Generator – Bldg 6B) – One (1) Cummins 500 kW emergency generator with a 755 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0784 (Generator – Bldg 14E) – One (1) Cummins 450 kW emergency generator with a 685 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

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9-0786 (Generator – Bldg 14A) – One (1) Caterpillar 750 kW emergency generator with a 980 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0787 (Generator – Bldg 11) – One (1) Cummins 600 kW emergency generator with a 900 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0968 (Generator – Bldg 59) – One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

9-0969 (Generator – Bldg 59) – One (1) Cummins 2000 kW emergency generator with a 2922 brake horsepower engine (bhp) using diesel fuel with a sulfur content <0.05%.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05E(2), Emissions During Idle Mode.** “A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.”
2. **COMAR 26.11.09.05E(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.”
3. **COMAR 26.11.09.05E(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 properly operate and maintain the engine in a manner to minimize visible emissions. **[Authority: COMAR 26.11.03.06C]**

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- The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations" **[Authority: COMAR 26.11.03.06C]**

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), 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: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

- The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. **[Authority: COMAR 26.11.09.07C]**
- The Permittee shall report annual fuel supplier certification to the Department upon request. **[Authority: COMAR 26.11.09.07C]**

C. Control of Nitrogen Oxides

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

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- a. 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:
 - i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. 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;
 - iii. 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;
 - iv. 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
 - v. 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

- The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Authority: COMAR 26.11.09.08G(1)(b)]**
- For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. **[Authority: COMAR 26.11.03.06C].**
- The Permittee shall:
 - a. Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. **[Authority: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].**
 - b. Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. **[Authority: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**
- The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. **[Authority: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]**

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- The Permittee shall submit a list of trained operators to the Department upon request. **[Authority: COMAR 26.11.09.08G(e) and COMAR 26.11.03.06C]**

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtain approval from the Department to burn an alternate fuel. **[Authority: COMAR 26.11.02.09A]**
2. The Permittee must operate emergency stationary RICE according to the requirements in the paragraphs of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements in the paragraphs of this section, the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.
 - a. There is no limit on emergency operation of the engine.
 - b. The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year.
 - c. The Permittee may operate the emergency engine for up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for the maintenance and testing and emergency response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **[Authority: 40 CFR §63.6640(f)(1), (2), and (4)]**

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Compliance Demonstration

- The Permittee shall monitor fuel usage for the generator. **[Authority: COMAR 26.11.03.06C]**
- The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. **[Authority: COMAR 26.11.03.06C].**
- The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine; and
 - b. The installation date of the emergency diesel generator.
[Authority: COMAR 26.11.03.06C]
- The Permittee shall send a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. **[Authority: COMAR 26.11.03.06C]**

Emission Unit Number(s): 9-0633 Gasoline Storage Tanks

9-1204 (Gasoline Storage Tanks) – One (1) small motor vehicle refueling station.

9-1273 (Gasoline Storage Tanks) – One (1) aboveground gasoline storage tanks and dispensing equipment.

Applicable Standards/Limits:

1. **COMAR 26.11.13.04C(2)** – Small Storage Tanks, Stage I Vapor Recovery. “An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained and used.”

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2. **COMAR 26.11.13.04D** – General Standards. “A person may not cause or permit a gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any truck, railroad tank car, or other contrivance unless the:”
- a. “Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and”
 - b. “Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading and unloading operations.”

Compliance Demonstration

At least once a month during a delivery, the Permittee shall monitor the fuel drop for liquid spills and at least once every three months, check the fittings at the station for proper operation and seal. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall maintain the following records for at least 5 years:

- a. The date on which defective equipment was found, a description of each defect, a description of the corrective action and date on which the defect was corrected, and the probable cause of the defect;
- b. If parts are replaced, the location within the approved system of the part, the part number, and assurance that the replacement part does not degrade the efficiency of the system; and

Inspection reports and any other information relating to maintenance or care of the system. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall create and maintain records on gasoline throughput and tank sizes and make the records available to the Department upon request. **[Authority: COMAR 26.11.03.06C]**

The Permittee shall install and operate an approved system within 1 year after any calendar year in which the average monthly gasoline throughput at the facility during the calendar year exceeds 50,000 gallons per month for existing independent small business gasoline marketers, or 10,000 gallons per month for other existing gasoline dispensing facilities. The owner and operator of these facilities are subject to all applicable requirements of this chapter. **[Authority: COMAR 26.11.24.07D]**

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The Permittee shall make records available to the Department upon request.
[Authority: COMAR 26.11.03.06C]

COMPLIANCE SCHEDULE

The National Institutes of Health is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

The National Institutes of Health is not subject to Title IV requirements.

TITLE VI – OZONE DEPLETING SUBSTANCES

The National Institutes of Health is subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

The National Institutes of Health is not subject to the requirements of Section 112(r).

PERMIT SHIELD

The National Institutes of Health did not request a permit shield.

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SECTION V INSIGNIFICANT ACTIVITIES

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

- (1) No. 14 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The boilers are subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

- (a) The visible emissions are not greater than 40 percent opacity; and
- (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

COMAR 26.11.09.07A(2)(b), which establishes that the Permittee may not burn, sell, or make available for sale any distillate fuel with a sulfur content by weight in excess of 0.3 percent.

- (2) No. 69 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The affected units are subject to the following requirements:

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

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- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
- (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.
- (D) New Source Performance Standards: 40 CFR 60, Subpart IIII and 40 CFR 60, Subpart JJJJ as applicable.
- (E) National Emission Standards for Hazardous Air Pollutants: 40 CFR 63, Subpart ZZZZ as applicable.
- (3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;
- The affected units are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

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- (a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;
- (b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;
- (c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

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

- (a) Monthly records of the total VOC degreasing materials used; and
 - (b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.
-
- (5) ☒ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
 - (6) ☒ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
 - (7) Containers, reservoirs, or tanks used exclusively for:
 - (a) ☐ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

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- (b) Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
- (c) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
- (d) No. ✓ Storage of lubricating oils;
- (e) No. ✓ Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;
- (f) No. ✓ Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
- (g) No. ✓ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
- (h) No. ✓ The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (8) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
- (9) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (10) ✓
- (11) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (12) ✓ Laboratory fume hoods and vents;

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

The following Proposed regulations (C) through (E) apply to the Cogeneration System – B/11 (ARA Regulation No. 031-0324-5-1156) only.

- C. **COMAR 26.11.40.02 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units**. Applicability.
1. “The owner or operator of a non-trading large NO_x unit, that is not a unit subject to the federal Cross State Air Pollution Rule NO_x Ozone Season Group 2 Trading Program established under 40 CFR Part 97, Subpart EEEEE, shall comply with the ozone season NO_x emission limitation, monitoring, recordkeeping and reporting requirements for ozone season emissions of NO_x set forth in this Chapter.”
 2. “The requirements of this Chapter apply to a person who owns or operates a non-trading large NO_x unit located at the affected sources in §C of this Regulation.”
 3. “Affected Sources and Units.”
 - a. Cove Point LNG Units No. Frame 5-1 (Turbine S009), Frame 5-2 (Turbine S010), Frame 7-A, Frame 7-B, Aux A and Aux B;
 - b. Luke Paper Mill Units No. 24, 25 and 26;
 - c. American Sugar Unit No. C6; and

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d. National Institutes of Health Unit 5-1156; and

e. A person who owns or operates a new unit subject to the Chapter

D. COMAR 26.11.40.03 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units. NO_x Ozone Season Emission Caps.

1. “The total combined NO_x ozone season emissions for all non-trading large NO_x units subject to this Chapter shall not exceed 1013 tons in accordance with the 40 CFR Part 97, Subpart E, Appendix C.”

2. “NO_x Ozone Season Emission Caps.”

a. “The total combined ozone season NO_x emissions from all the affected units at an affected source as identified in §.02.C of this Chapter shall not exceed the NO_x ozone season emission caps in §B(2) of this Regulation.”

b. “Table – NO_x Ozone Season Emission Caps”

| <i>Affected Sources</i> | <i>NO_x Ozone Season Emission Caps beginning May 1, 2018</i> |
|--------------------------------------|--|
| <i>Cove Point LNG</i> | <i>214 tons</i> |
| <i>Luke Paper Mill</i> | <i>656 tons</i> |
| <i>American Sugar</i> | <i>24 tons</i> |
| <i>National Institutes of Health</i> | <i>23 tons</i> |
| <i>New Unit Set Aside</i> | <i>96 tons</i> |
| <i>Total</i> | <i>1013 tons</i> |

3. “NO_x ozone season emission caps for new units shall be determined by the Department from available tonnage allocated to New Unit Set Aside under §B(2) of this Regulation.”

E. COMAR 26.11.40.04 – NO_x Ozone Season Emission Caps for Non-trading Large NO_x Units. Monitoring and Reporting Requirements.

1. “For non-trading large NO_x units subject to this Chapter, the owner or operator shall:”

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- a. "Continuously monitor NO_x emissions with a CEM system in accordance with 40 CFR Part 75, Subpart H and 40 CFR §51.121(i)(4); and"
 - b. "Maintain records and submit reports regarding NO_x emissions in accordance with 40 CFR Part 75."
2. "The owner or operator of a non-trading large NO_x unit subject to this Regulation shall include emissions data obtained from a CEM system pursuant to §A of this Regulation in the CEM quarterly reports submitted to the Department pursuant to COMAR 26.11.01.11E(2)."
2. Record Keeping and Reporting:
 - A. 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:
 1. a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
 2. 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.

NATIONAL INSTITUTES OF HEALTH

BETHESDA, MARYLAND

PERMIT NUMBER 24 031 00324

CLEAN AIR ACT

TITLE V, PART 70

PERMIT RENEWAL APPLICATION PACKAGE



MARYLAND DEPARTMENT OF THE ENVIRONMENT

May 2022

RENEWAL APPLICATION

**NATIONAL INSTITUTES OF
HEALTH BETHESDA, MARYLAND**

TITLE V PART 70 PERMIT APPLICATION

**BETHESDA CAMPUS
MAY 2022**

NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND

TITLE V PART 70 PERMIT RENEWAL APPLICATION
BETHESDA CAMPUS

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| 14 | Attachments | TAB R |
| | A. Permit to Operate 15 031 00324 | Atch 1 |
| | B. Emission Certification Report (CY 2021) | Atch 2 |
| | C. Compliance Certification Report (CY 2021) | Atch 3 |
| | D. Power Plant Boilers Potential To Emit (PTE) | Atch 4 |
| | E. Emergency Generators Potential To Emit (PTE) | Atch 5 |
| | F. CoGeneration System Potential to Emit (PTE) | Atch 6 |
| | G. CoGeneration System Operating Data (Brochure) | Atch 7 |
| | H. Gasoline Underground Storage Tank Emission Rprt | Atch 8 |
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| | J. Boiler # 5, Vendor Information, Flue Gas Recirculation System | Atch 10 |
| | K. NIH CoGeneration System Annual Quality Assurance RATA | Atch 11 |
| | L. NIH Annual RATA Test Report for the CEMS on the five Boilers | Atch 12 |
| | M. Map, NIH Bethesda, Maryland campus | Atch 13 |

A



National Institutes of Health
Office of Research Facilities
Bethesda, Maryland 20892-5746
Division of Environmental Protection
Bldg. 13/2S11, MSC 5746
Phone: 301-496-7775
Fax: (301) 480-8056

17 May 2022

Ms. Marcellina Gurley,
Air Quality Compliance Program
Air and Radiation Management Administration
Maryland Department of the Environment
1800 Washington Boulevard, Suite 715
Baltimore, Maryland 21230-1720

Re: Title V, Part 70 Program, Permit # 24 031 00324

Dear Ms. Gurley:

Enclosed please find the National Institutes of Health (NIH), Bethesda Campus, Title V, Part 70 Permit Renewal Application. The application is submitted in accordance with the directions provided by the Maryland Department of the Environment. This permit renewal includes the following:

- Generators that are less than 500 BHP
- Two emergency generators at building 11 each rated at 2000 KW
- One emergency generator at building T 30 rated at 609 BHP
- One emergency generator at building 4 rated at 500 KW
- One emergency generator at building 10 E rated at 2000 KW
- One emergency generator at building 45 rated at 2000 KW
- Two natural gas fired Cleaver Brooks boilers rated at 94.7 MMBTU/HR

This submittal also includes emission calculations for the boilers, emergency generators, cogeneration system, and underground fuel storage tanks. The emission calculations for this application are based on stack test data for the boilers; AP 42 emission data for the emergency generators; stack test data for the cogeneration system; and the Emission Inventory Improvement Program report dated January 2001 for the underground fuel storage tanks.

In January 2019, NIH installed and began to operate a NOx Continuous Emission Monitoring (CEM) system on the five boilers located in our Central Utility Plant. Because a CEM system was installed, NIH no longer continues with the alternative NOx Plan for Boiler 5. NIH meets the stack testing requirements for Boilers #1-5 by operating the CEM system.

If you have any questions concerning this submission, please call me, Mark Miller, Joseph Musa, or Brian Kim at (301) 496-7775.

Sincerely,


William K. Floyd, Director Division
of Environmental Protection

Enclosure (2 Copies)
Part 70 Permit Renewal
Application



Maryland

Department of the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

Air and Radiation Administration • Air Quality Permits Program • 1800 Washington Blvd, Ste.720 • Baltimore, MD 21230

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

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

Section 1-203(b).

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

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

Current MDE License/Permit No: 24-031-00324

Name of Licensee or Permit Holder: National Institutes of Health

Address: Bldg. 13, Room 2S11, 9000 Rockville Pike, Bethesda, MD, 20892

Contact Name: Mark F Miller Title: Branch Chief

Contact Telephone Number: (301) 496-7775

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

Federal Employer Identification Number (FEIN): 31-1575142

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

Signature: [Signature]

Date: 17 May 2022

Complete, and return this form to the above address. Call 410-537-3230 if you have questions.

B

PART 70 PERMIT APPLICATION FOR RENEWAL
AIR AND RADIATION MANAGEMENT ADMINISTRATION

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

Owner and Operator:

| | | |
|--|---------------------------------|-----------------|
| Name of Owner or Operator: NATIONAL INSTITUTES OF HEALTH | | |
| Street Address: 9000 ROCKVILLE PIKE | | |
| City: BETHESDA | State: MARYLAND | Zip Code: 20892 |
| Telephone Number: (301) 496- 3537 | Fax Number: (301) 480 - 8056 | |

Facility Information:

| | | |
|---|---------------------------------------|---------------------------------|
| Name of Facility: NATIONAL INSTITUTES OF HEALTH | | |
| Street Address: BUILDING 13, ROOM 2S11 9000 ROCKVILLE PIKE | | |
| City: BETHESDA | State: MARYLAND | Zip Code: 20892 |
| Plant Manager: JOE NIEVES | Telephone Number: (301) 451 – 4478 | Fax Number: (301) 402 - 2410 |
| 24-Hour Emergency Telephone Number for Air Pollution Matters: NIH EMERGENCY COMMUNICATION CENTER (301) 496-2372 (24 HOUR) NIH DIVISION OF ENVIRONMENTAL PROTECTION (301) 496 – 3537 | | |

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



Other Facilities Owners, Operators, Managers or Contacts

William K. Floyd, Director, Division of Environmental Protection, DEP, (301) 496- 3537

Mark F. Miller, Chief, Environmental Compliance Branch, DEP, (301) 496- 7775

Joe Nieves, Chief Utilities Generation Branch, DTR, (301) 451 4478

Joe Jackson, Emergency Generator Manager, Technical Support Services, DPM, (301) 402 3337

Dax Sadler, Operations Manager, DTR, (301) 451 1188



C

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 1. CERTIFICATION STATEMENTS

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

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

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

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

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

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

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

4. Risk Management Plan Compliance

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

☐ has been submitted;

☐ will be submitted at a future date; or

☐ does not need to be submitted.



MARYLAND DEPARTMENT OF THE ENVIRONMENT

5. Statement of Truth, Accuracy, and Completeness

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

RESPONSIBLE OFFICIAL

X

[Signature] 17 May 2022

SIGNATURE

DATE

Mark F. Miller

PRINTED NAME

Chief Environmental Compliance Branch

TITLE



D

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly Describe the major activities, including the applicable SIC Code(s) and end products:

NIH Campus – SIC Code 8922, Research Laboratory

Central Utility Plant – SIC Code 496, Steam and Air Conditioning Supply NIH

Bethesda Campus

The National Institutes of Health (NIH) is a Federal Government biomedical research institution. It consists of a large research hospital, many research laboratory buildings, animal holding facilities, administrative facilities, support facilities, and a central utility plant. The NIH campus located on 322 acres consists of over 70 buildings. The laboratories on campus perform biomedical and related scientific research. The administrative areas support planning, administration, and coordination of NIH's programs; including research, clinical trials, communicable disease control and a variety of other activity.

Central Utility Plant

The central utility plant includes five large boilers, two medium boilers, twelve chillers, and one 23 MW cogeneration system that supply the heating, cooling, and a significant portion of the electric capacity of the NIH campus in Bethesda.

Boilers Number 1 through 4 have been converted to primarily fire natural gas with Number Two fuel oil used as a back-up fuel and the burners were replaced with Low NOx burners. This conversion was completed as part of the overall installation of a 23 MW cogeneration system. Boiler Number 5 was constructed in 1995 and operated primarily on Natural gas with Number Two fuel oil used as a back-up fuel. The two medium natural gas fired Cleaver Brooks boilers were permitted in September, 2018.

The 23 MW cogeneration system was completed in 2001. The cogeneration unit generates approximately 23 MW of electricity and produce 103 MMBTU/Hr of steam. The cogeneration system primarily operates on natural gas with Number Two fuel oil as a back-up fuel.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 2. FACILITY DESCRIPTION SUMMARY

2. Facility-Wide Emissions

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

X Actual Major
Potential Major
Solid Waste Incineration Unit Requiring Permit Under Section 129(e) of CAA

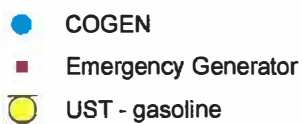
- B. List the actual facility wide emissions below:

PM10 7.2 TPY NO_x 89.8 TPY VOC 3.1 TPY SO_x 2.8 TPY CO 14.7.1 TPY HAPs 0.0 TPY

3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices;
Emissions Certification Report (copy of the most recent submitted to the Department.)

Locations of Emissions Units - Southwest Quadrant

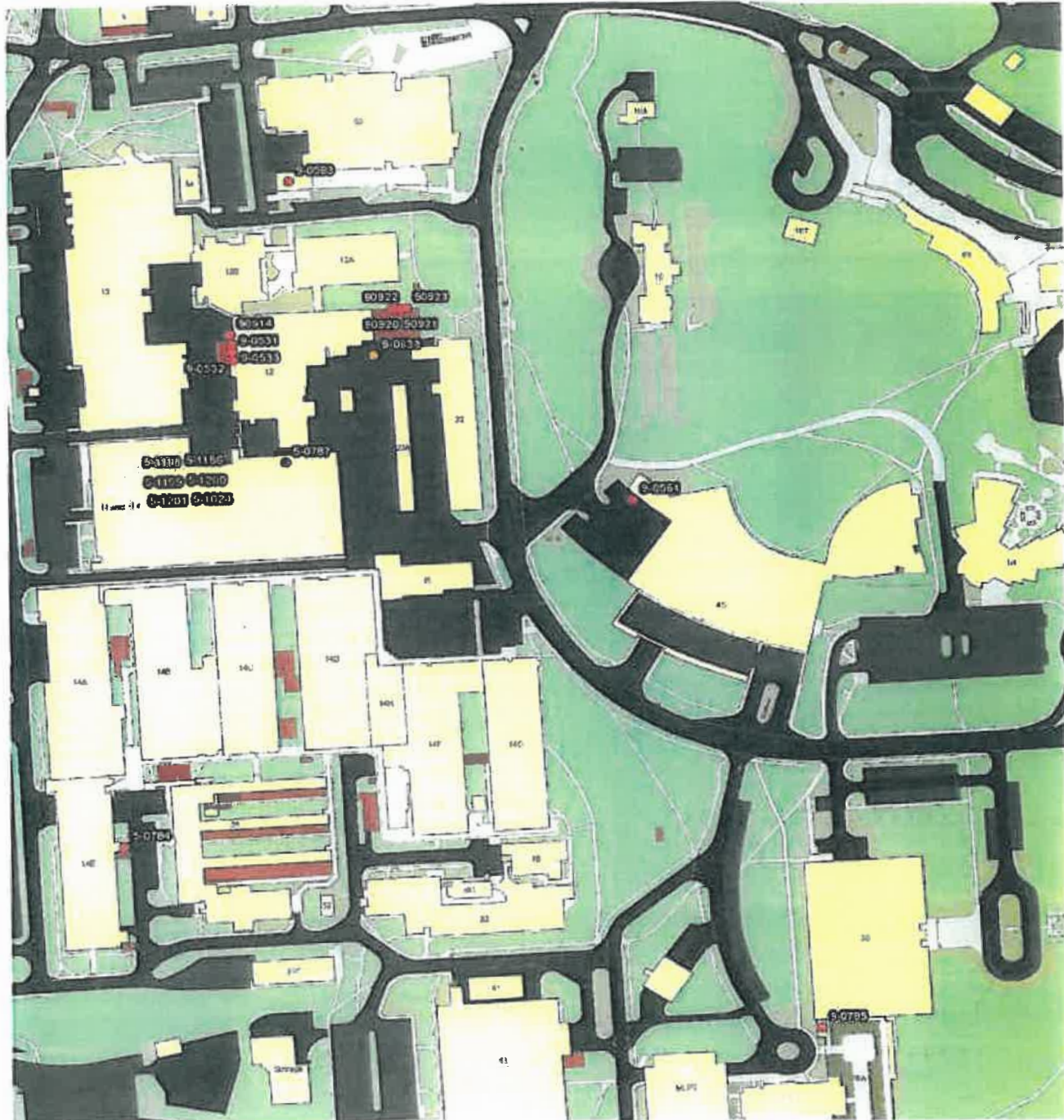




National Institutes of Health, Bethesda Campus Title V, Part 70



Locations of Emission Units - Southeast Quadrant



Legend

NIHBC Title V Emission Points

Type

- Cogeneration System
- Emergency Generator
- UST Gasoline

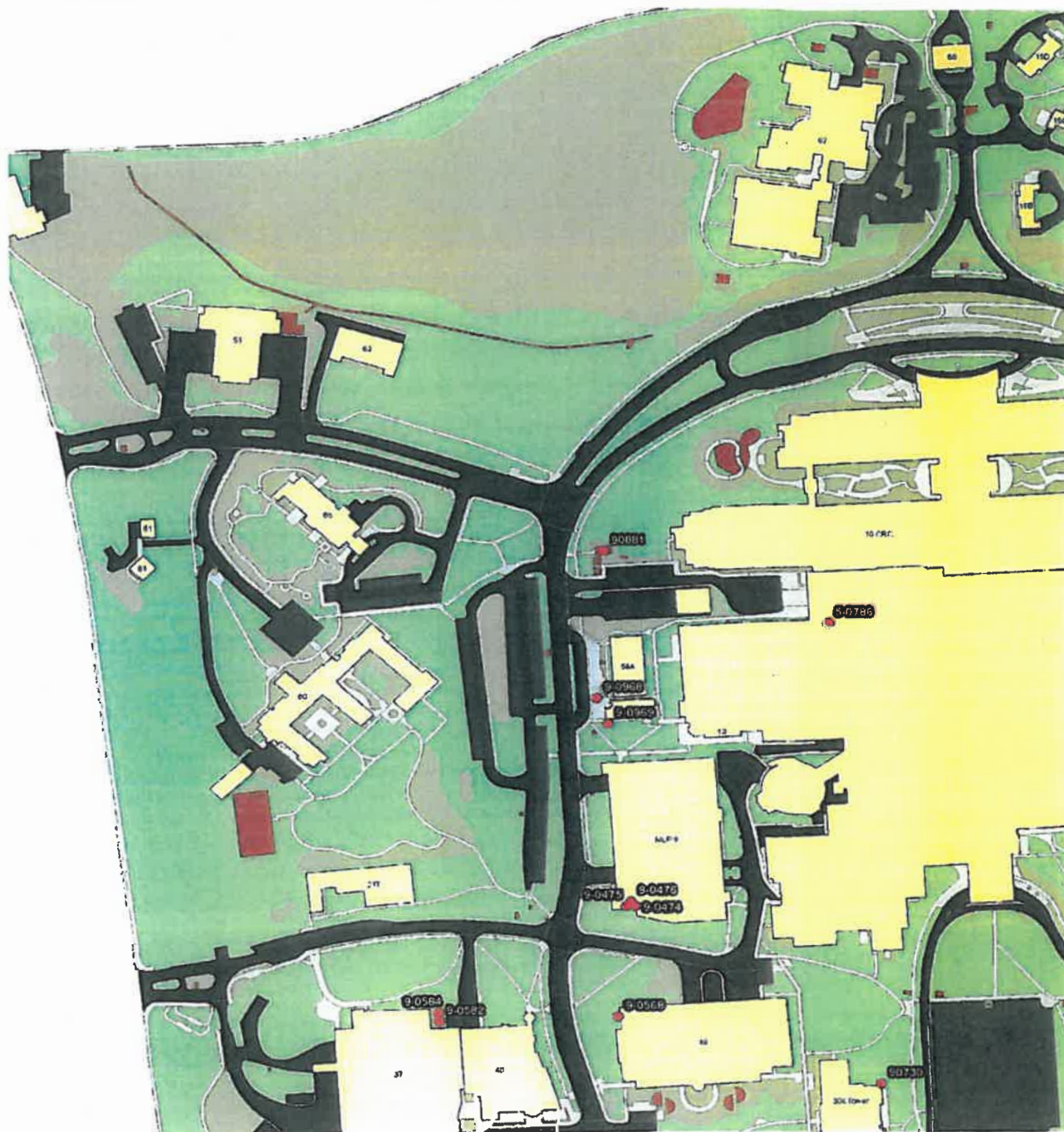


National Institutes of Health, Bethesda Campus



Title V, Part 70

Locations of Emission Units - Northwest Quadrant



Legend

NIHBC Title V Emission Points

Type

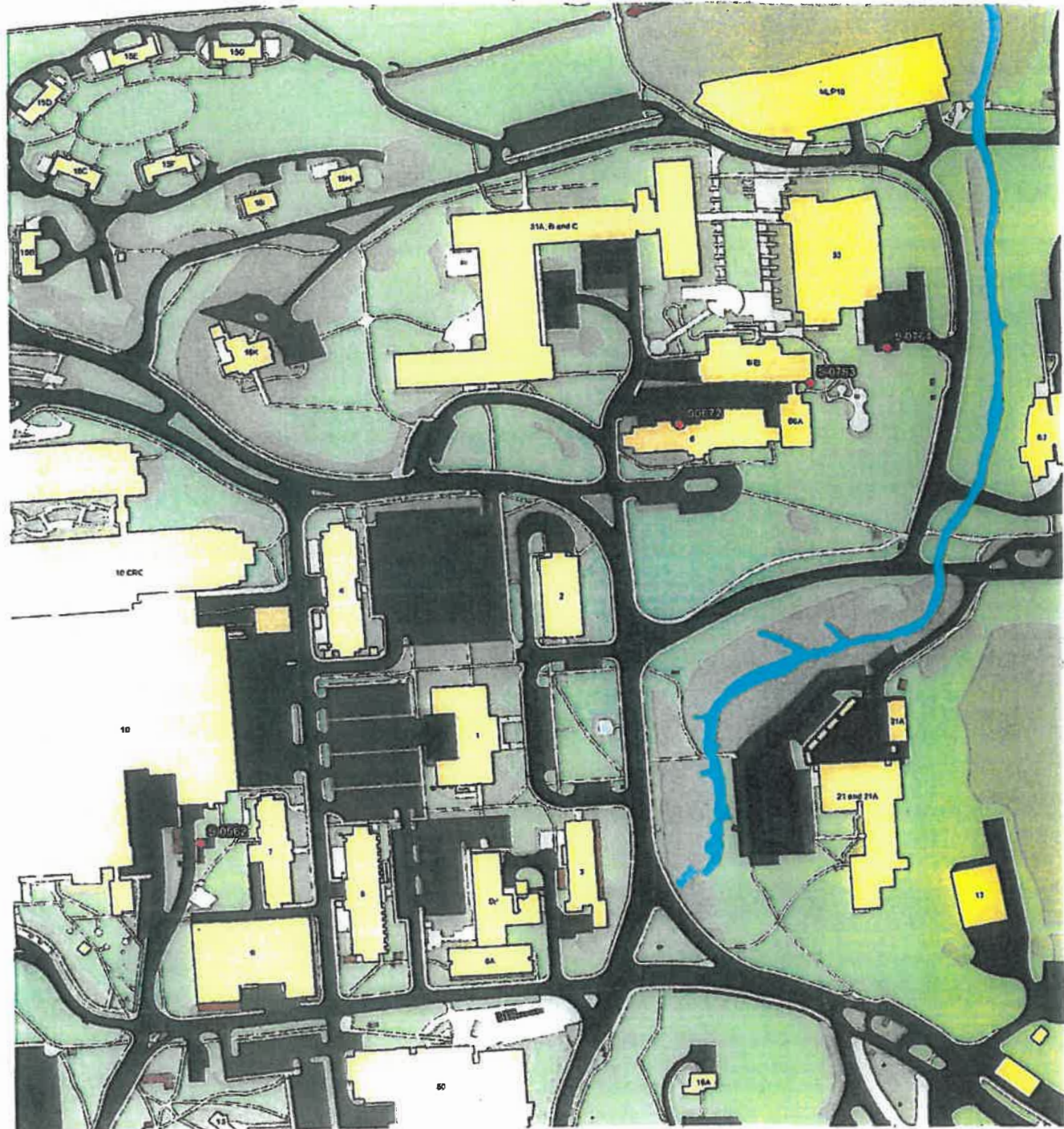
- Cogeneration System
- Emergency Generator
- UST Gasoline



National Institutes of Health, Bethesda Campus Title V, Part 70



Locations of Emission Units - Northeast Quadrant

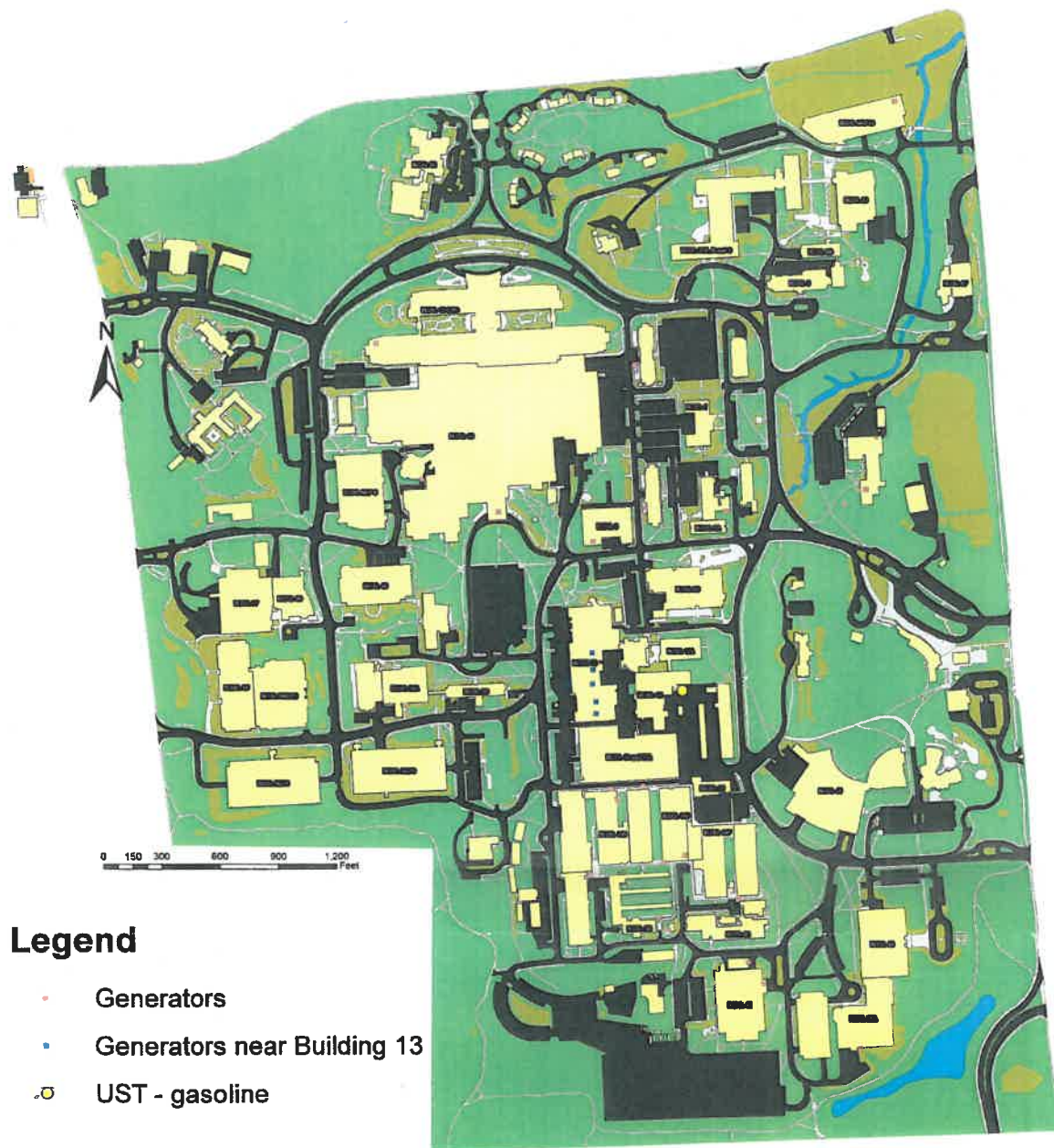


Legend

NIHBC Title V Emission Points Type

- Cogeneration System
- Emergency Generator
- UST Gasoline

National Institutes of Health, Bethesda Campus
Title V, Part 70
Locations of Emission Units for Generators less than 500 BHP



E

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5 - 1024 (Boiler # 5 - Bldg 11) B)</p> <p>1a. Date of installation (month /year): 1995</p> | <p>2. MDE Registration No.: (if applicable)</p> <p align="center">5-1024</p> | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|---------------|-------------------|--|---------------------------|----|---------------------------|--------|----------------------------|----|--|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>Boiler # 5 is a Volcano International 245 MMBtu/hr normally fired steam boiler. The primary fuel used in Boiler # 5 is natural gas with Number Two fuel oil as a back-up fuel. The sulfur content of the Number Two fuel oil is less than 0.3 % or the maximum sulfur content allowed by law. Boiler # 5 has an operational limit for Number Two fuel oil based on a 10 percent annual fuel oil capacity factor. This unit has both flue gas recirculation and low NOx burners for NOx emissions associated with this unit. Boiler # 5 exhaust gas is emitted through Stack # 5. The potential emissions from Boilers Number 1 through 5 are presented in Attachment 4. The emission factors used to estimate emissions from Boilers Number 1 through 5 are listed in Attachment 4.</p> | | | | | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: NOT APPLICABLE</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 30%;">hours / day</td> <td style="width: 30%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | hours / day | days / year | Batch Processes: | hours / batch | batches / day | | days / year | | | | | | | | |
| Continuous Processes: | hours / day | days / year | | | | | | | | | | | | | | | |
| Batch Processes: | hours / batch | batches / day | | | | | | | | | | | | | | | |
| | days / year | | | | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>NATURAL GAS</td> <td>0.0 %</td> <td>NOT APPLICABLE – No Limit</td> </tr> <tr> <td>2.</td> <td>FUEL OIL # 2 (DIESEL OIL)</td> <td>< 0.3%</td> <td>10% ANNUAL CAPACITY FACTOR</td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | NATURAL GAS | 0.0 % | NOT APPLICABLE – No Limit | 2. | FUEL OIL # 2 (DIESEL OIL) | < 0.3% | 10% ANNUAL CAPACITY FACTOR | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | NATURAL GAS | 0.0 % | NOT APPLICABLE – No Limit | | | | | | | | | | | | | | |
| 2. | FUEL OIL # 2 (DIESEL OIL) | < 0.3% | 10% ANNUAL CAPACITY FACTOR | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">A.</td> <td style="width: 40%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 20%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 40.15 SOx 0.92 VOC 0.52 PM10 1.2 HAPs 0.00</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 40.15 SOx 0.92 VOC 0.52 PM10 1.2 HAPs 0.00 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 40.15 SOx 0.92 VOC 0.52 PM10 1.2 HAPs 0.00 | | | | | | | | | | | | | | | |

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5- 2403 and 5-2404 (2 Permanent Boilers located in front of Bldg. 11)</p> <p>1a. Date of installation (month/year): 09/2018</p> | <p>2. MDE Registration No.:(if applicable) 5-2403 and 5-2404</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|-----|---------------------------|----------|--|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>Two natural gas fired Cleaver Brooks boilers rated at 94.7 MMBTU/HR with diesel as back up.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>NOT APPLICABLE</u></p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 20%;">% Sulfur</th> <th style="text-align: left; width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0</td> <td>NOT APPLICABLE - No Limit</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | 2. _____ | | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.39</u> SOx <u>0.02</u> VOC <u>0.04</u> PM10 <u>0.06</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5- 2397 (Boiler Bldg. 15K)</p> <p>1a. Date of installation (month/year): 10/2017</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-2397</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|-----|---------------------------|----------|--|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>Boiler at building 15 K is a Lochinvar natural gas boiler rated at 1.3 MMBTU heat input equipped with low NOx burner</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>NOT APPLICABLE</u></p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 20%;">% Sulfur</th> <th style="text-align: left; width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0</td> <td>NOT APPLICABLE - No Limit</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | 2. _____ | | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.0</u> SOx <u>0.00</u> VOC <u>0.0</u> PM10 <u>0.0</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5- 2385 (Boiler Bldg. 82)</p> <p>1a. Date of installation (month/year): 07/2015</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-2385</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|-----|---------------------------|----------|--|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <hr/> <p>Boiler at building 82 is one smith cast Iron Boiler High Efficiency natural gas boiler rated at 1.342 MMBTU heat input equipped with low NOx burner</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>NOT APPLICABLE</u></p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 20%;">% Sulfur</th> <th style="text-align: left; width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0</td> <td>NOT APPLICABLE - No Limit</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | 2. _____ | | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.01</u> SOx <u>0.00</u> VOC <u>0.0</u> PM10 <u>0.0</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5- 2287 (Boiler Bldg. 62)</p> <p>1a. Date of installation (month/year): 01/2013</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-2287</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|-----|---------------------------|----------|--|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>Boiler at Bldg. 62 is a natural gas fired Lochinvar SBN- 1300 boiler rated at 1.3 million Btu per hour heat input. The primary fuel used in Boiler Bldg. 62 is natural gas.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>NOT APPLICABLE</u></p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 20%;">% Sulfur</th> <th style="text-align: left; width: 40%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0</td> <td>NOT APPLICABLE - No Limit</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | 2. _____ | | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 | NOT APPLICABLE - No Limit | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.04</u> SOx <u>0.0</u> VOC <u>0.0</u> PM10 <u>0.05</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 1219 (Generator - Bldg 4) 1a. Date of installation (month /year): April 2020 | 2. MDE Registration No.: (if applicable) 9-1219 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|---------------|-------------------|---|-------------|----|--|--|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 500 KW Emergency Generator with a 835 Horsepower (HP) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Continuous Processes:</td> <td style="width: 35%; text-align: center;">24 hours / day</td> <td style="width: 30%; text-align: center;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td style="text-align: center;">hours / batch</td> <td style="text-align: center;">batches / day</td> </tr> <tr> <td></td> <td style="text-align: center;">days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 hours / day | days / year | Batch Processes: | hours / batch | batches / day | | days / year | | | | | | | | |
| Continuous Processes: | 24 hours / day | days / year | | | | | | | | | | | | | | | |
| Batch Processes: | hours / batch | batches / day | | | | | | | | | | | | | | | |
| | days / year | | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Diesel Fuel</td> <td style="text-align: center;">< 0.05 %</td> <td style="text-align: center;">0 Gallons</td> </tr> <tr> <td style="text-align: center;">2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 0 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 0 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 35%;">Actual Major:</td> <td style="width: 35%;">Potential Major:</td> <td style="width: 15%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td> NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 </td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 1263 (Generator - Bldg 45) 1a. Date of installation (month /year): Feb 2022 | 2. MDE Registration No.: (if applicable) 9-1263 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2937 Brake Horsepower (HP) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>0 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 0 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 0 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 1203 (Generator - Bldg T30) 1a. Date of installation (month /year): May 2019 | 2. MDE Registration No.: (if applicable) 9-1203 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 400 KW Emergency Caterpillar Generator with a 609 Brake Horsepower (BHP) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Continuous Processes:</td> <td style="width: 15%;">24</td> <td style="width: 25%;">hours / day</td> <td style="width: 25%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Type(s) of Fuel</th> <th style="width: 25%;">% Sulfur</th> <th style="width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>0 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 0 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 0 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 1175 (Generator - Bldg 10E) 1a. Date of installation (month /year): Jan 2018 | 2. MDE Registration No.: (if applicable) 9-1175 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2937 Brake Horsepower (HP) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Continuous Processes:</td> <td style="width: 15%; text-align: center;">24</td> <td style="width: 30%;">hours / day</td> <td style="width: 20%; text-align: center;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Type(s) of Fuel</th> <th style="width: 30%;">% Sulfur</th> <th style="width: 25%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>0 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 0 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 0 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 1027 (Generator - Bldg 38) 1a. Date of installation (month /year): Dec 2012 | 2. MDE Registration No.: (if applicable) 9 - 1027 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 474 KW Emergency Generator with a 635 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Kohler Model 450REOZDD generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>124 gal</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 124 gal | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 124 gal | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 35%;">Actual Major:</td> <td style="width: 35%;">Potential Major:</td> <td style="width: 15%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx <u>0.0</u> SOx <u>0.0</u> VOC <u>0.0</u> PM10 <u>0.01</u> HAPs <u>0.0</u></td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx <u>0.0</u> SOx <u>0.0</u> VOC <u>0.0</u> PM10 <u>0.01</u> HAPs <u>0.0</u> | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx <u>0.0</u> SOx <u>0.0</u> VOC <u>0.0</u> PM10 <u>0.01</u> HAPs <u>0.0</u> | | | | | | | | | | | | | | | |

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0992 (Generator - Bldg 10F)</p> <p>1a. Date of installation (month/year): July 2004 Not In Service</p> | <p>2. MDE Registration No.:(if applicable) 9-0992</p> | | | | | | | | | | | | |
|---|---|------------------------------|----------|------------------------------|----------------|----------|-------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 2000 KW Emergency Generator with a 2680 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar Model 3516 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>0 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 0 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 0 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0</u> SOx <u>0</u> VOC <u>0</u> PM10 <u>0</u> HAPs <u>0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0969 (Generator - Bldg 59)</p> <p>1a. Date of installation (month/year): July 2004</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0969</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|----------|----------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 2000 KW Emergency Generator with a 2922 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins QSK60 - G6 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>1200 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 1200 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 1200 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.260</u> SOx <u>.004</u> VOC <u>.01</u> PM10 <u>.004</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0923 (Generator - Bldg 12) 1a. Date of installation (month /year): June 2009 | 2. MDE Registration No.: (if applicable) 9-0923 | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|------------------|-------------------|--|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2940 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete MTU continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>173 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 173 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 173 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0922 (Generator - Bldg 12) 1a. Date of installation (month /year): June 2009 | 2. MDE Registration No.: (if applicable) 9-0922 | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|------------------|-------------------|--|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2940 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete MTU continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>173 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 173 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 173 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.05 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0921 (Generator - Bldg 12) 1a. Date of installation (month /year): June 2009 | 2. MDE Registration No.: (if applicable) 9-0921 | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|------------------|-------------------|--|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2940 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete MTU continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>187 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 187 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 187 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 35%;">Actual Major:</td> <td style="width: 35%;">Potential Major:</td> <td style="width: 15%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0920 (Generator - Bldg 12) 1a. Date of installation (month /year): June 2009 | 2. MDE Registration No.: (if applicable) 9-0920 | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|------------------|-------------------|--|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2940 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete MTU continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>187 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 187 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 187 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0914 (Generator - Bldg 12) 1a. Date of installation (month /year): June 2009 | 2. MDE Registration No.: (if applicable) 9-0914 | | | | | | | | | | | | | | | | |
|--|--|--|-------------------------------|------------------|-------------------------------|------------------|-------------------|--|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 1000 KW Emergency Generator with a 1480 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar XQ 1000 emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>173 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 173 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 173 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.06 SOx 0.0 VOC 0.002 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.002 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.06 SOx 0.0 VOC 0.002 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0881 (Generator - Bldg 10 CRC Data Center) 1a. Date of installation (month /year): March 2008 | 2. MDE Registration No.: (if applicable) 9-0881 | | | | | | | | | | | | | | | | |
|---|---|-----------------------|-------------------------------|------------------|-------------------------------|------------------|---|---------------|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One 1500 KW Emergency Generator with a 2200 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins engine generator and engine set. This standby generator set will operate on average less than 260 hours per year. | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width:100%; border: none;"> <tr> <td style="width:40%;">Continuous Processes:</td> <td style="width:20%;">24</td> <td style="width:20%;">hours / day</td> <td style="width:20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width:100%; border: none; margin-top: 10px;"> <tr> <th style="width:10%;"></th> <th style="width:35%;">Type(s) of Fuel</th> <th style="width:20%;">% Sulfur</th> <th style="width:35%;">Annual Usage (specify units)</th> </tr> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>1440 gal</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 1440 gal | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 1440 gal | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width:100%; border: none; margin-top: 10px;"> <tr> <td style="width:10%;">A.</td> <td style="width:35%;">Actual Major:</td> <td style="width:20%;">Potential Major:</td> <td style="width:35%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions: NOx <u>0.3125</u> SOx <u>0.005</u> VOC <u>0.001</u> PM10 <u>0.005</u> HAPs <u>0.0</u></td> <td></td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: NOx <u>0.3125</u> SOx <u>0.005</u> VOC <u>0.001</u> PM10 <u>0.005</u> HAPs <u>0.0</u> | | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: NOx <u>0.3125</u> SOx <u>0.005</u> VOC <u>0.001</u> PM10 <u>0.005</u> HAPs <u>0.0</u> | | | | | | | | | | | | | | | | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0914 (Generator - Bldg 12) 1a. Date of installation (month /year): April 2009 | 2. MDE Registration No.: (if applicable) 9-0914 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 1000 KW Emergency Generator with a 1480 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar XQ 1000 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 35%;">Type(s) of Fuel</th> <th style="width: 30%;">% Sulfur</th> <th style="width: 25%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>187 gal</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 187 gal | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 187 gal | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 35%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 20%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx .005 SOx .0008 VOC .001 PM10 .0008 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx .005 SOx .0008 VOC .001 PM10 .0008 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx .005 SOx .0008 VOC .001 PM10 .0008 HAPs 0 | | | | | | | | | | | | | | | |

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9- 0787 (Generator - Bldg 11)</p> <p>1a. Date of installation (month/year): March 1995</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0787</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|--|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 600 KW Emergency Generator with a 900 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins engine VTA28 - G5 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: 24 hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>104 gal</td> </tr> <tr> <td>2. _____</td> <td></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 104 gal | 2. _____ | | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 104 gal | | | | | | | | | | | |
| 2. _____ | | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.02</u> SOx <u>0.0004</u> VOC <u>0.0007</u> PM10 <u>0.0004</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| | | | |
|--|----------|---|--|
| 1. Emissions Unit No.: 9-0786 (Generator - Bldg 10 B) | | 2. MDE Registration No.:(if applicable) 9 - 0786 | |
| 1a. Date of installation (month/year): January 1978 | | | |
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One 750 KW Emergency Generator with a 980 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar D349TA generator and engine set. This standby generator set will operate on average less than 260 hours per year. | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u> Continuous Processes: <u>24</u> hours/day <u> </u> days/year Batch Processes: <u> </u> hours/batch <u> </u> batches/day <u> </u> days/year | | | |
| 5. Fuel Consumption: | | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | |
| 1. Diesel Fuel | < 0.05 % | 264 gal | |
| 2. | | | |
| 3. | | | |
| 6. Emissions in Tons: | | | |
| A. Actual Major: <u> </u> | | Potential Major: <u> </u> (note: before control device) | |
| B. Actual Emissions: | | NOx <u>0.057</u> SOx <u>0.001</u> VOC <u>0.0017</u> PM10 <u>0.001</u> HAPs <u>0.0</u> | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9-0783 (Generator - Bldg 6 B)</p> <p>1a. Date of installation (month/year): June 1988</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0783</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 500 KW Emergency Generator with a 755 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins engine VTA28 - G1 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: 24 hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>100 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 100 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 100 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.02</u> SOx <u>0.0004</u> VOC <u>0.0006</u> PM10 <u>0.0004</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0729 (Generator - Bldg 35)</p> <p>1a. Date of installation (month/year): Sept. 2004</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0729</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1700 KW Emergency Generator with a 2550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Detroit Diesel DDC 16V-4000 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>250 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 250 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 250 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.054</u> SOx <u>.001</u> VOC <u>.002</u> PM10 <u>.001</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0728 (Generator - Bldg 35)</p> <p>1a. Date of installation (month/year): Sept. 2004</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0728</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1700 KW Emergency Generator with a 2550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Detroit Diesel DDC 16V-4000 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>750 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 750 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 750 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>.163</u> SO_x <u>.003</u> VOC <u>.005</u> PM₁₀ <u>.003</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0698 (Generator - Bldg 11) 1a. Date of installation (month /year): Dec 2021 | 2. MDE Registration No.: (if applicable) 9-0698 | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------------|------------------|-------------------------------|------------------|-------------------|---|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>Two 2000 KW Emergency Cummins Generator with a 2940 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete MTU continuous power emergency generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Continuous Processes:</td> <td style="width: 15%;">24</td> <td style="width: 25%;">hours / day</td> <td style="width: 25%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
| | | days / year | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 35%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>0 Gallons</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 0 Gallons | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
| 1. | Diesel Fuel | < 0.05 % | 0 Gallons | | | | | | | | | | | | | | |
| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 15%;">A.</td> <td style="width: 30%;">Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 25%;">(note: before control device)</td> </tr> <tr> <td>B.</td> <td>Actual Emissions:</td> <td>NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0</td> <td></td> </tr> </table> | | A. | Actual Major: | Potential Major: | (note: before control device) | B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | |
| A. | Actual Major: | Potential Major: | (note: before control device) | | | | | | | | | | | | | | |
| B. | Actual Emissions: | NOx 0.0 SOx 0.0 VOC 0.0 PM10 0.0 HAPs 0 | | | | | | | | | | | | | | | |

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0599 (Generator - Bldg 29 B)</p> <p>1a. Date of installation (month/year): Dec. 1994</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0599</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1000 KW Emergency Generator with a 1428 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar 3512 - D11A generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>417 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 417 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 417 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.084</u> SOx <u>.001</u> VOC <u>.002</u> PM10 <u>.0013</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0584 (Generator - Bldg 40)</p> <p>1a. Date of installation (month/year): March 2000</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0584</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1250 KW Emergency Generator with a 1786 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar 3512 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>380 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 380 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 380 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>.083</u> SO_x <u>.001</u> <u>VOC</u> <u>.02</u> <u>PM10</u> <u>.001</u> <u>HAPs</u> <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0583 (Generator - Bldg 50)</p> <p>1a. Date of installation (month/year): Dec. 1995</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0583</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1825 KW Emergency Generator with a 2598 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar 3516 - 2T generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>760 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 760 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 760 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>.165</u> SO_x <u>.003</u> VOC <u>.005</u> PM₁₀ <u>.003</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0582 (Generator - Bldg 37)</p> <p>1a. Date of installation (month/year): Dec. 1995</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0582</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1640 KW Emergency Generator with a 2374 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar 3516B generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>992 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 992 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 992 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.2158</u> SOx <u>.0035</u> VOC <u>.0062</u> PM10 <u>.0034</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0568 (Generator - Bldg 49)</p> <p>1a. Date of installation (month/year): Dec. 1995</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0568</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1500 KW Emergency Generator with a 2168 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar 3512 - D1 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>590 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 590 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 590 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.3256</u> SOx <u>.005</u> VOC <u>.01</u> PM10 <u>.005</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0562 (Generator - Bldg 10A)</p> <p>1a. Date of installation (month/year): Dec. 1991</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0562</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 775 KW Emergency Generator with a 1135 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins KTA38 - G1 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>173 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 173 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 173 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0.185</u> SO_x <u>0.003</u> VOC <u>0.005</u> PM₁₀ <u>.003</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



| | | | |
|--|---------------------|---|--|
| 1. Emissions Unit No.: 9 - 0561 (Generator - Bldg 45) | | 2. MDE Registration No.:(if applicable) 9-0561 | |
| 1a. Date of installation (month/year): Dec. 1994 | | | |
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One 1100 KW Emergency Generator with a 1490 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins KTA38 - G4 generator and engine set. This standby generator set will operate on average less than 260 hours per year. | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) Continuous Processes: <u>24</u> _____hours/day _____ days/year Batch Processes: _____hours/batch _____ batches/day _____days/year | | | |
| 5. Fuel Consumption: | | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | |
| 1. Diesel Fuel | < 0.05 % | 221 gal | |
| 2. _____ | | | |
| 3. _____ | | | |
| 6. Emissions in Tons: | | | |
| A. | Actual Major: _____ | Potential Major: _____ | (note: before control device) |
| B. | Actual Emissions: | NOx <u>0.0479</u> | SOx <u>0.001</u> VOC <u>0.001</u> PM10 <u>.001</u> HAPs <u>0.0</u> |



| | | | |
|---|----------|--|-------------|
| 1. Emissions Unit No.: 9 - 0533 (Generator - Bldg 12A) | | 2. MDE Registration No.:(if applicable) | |
| 1a. Date of installation (month/year): Sept. 1996 | | 9-0533 | |
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): | | | |
| One 1000 KW Emergency Generator with a 1550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete KATOLIGHT D1000FRX4 generator and engine set. This standby generator set will operate on average less than 260 hours per year. | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: | | | |
| General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) | | | |
| Continuous Processes: | | 24 | hours/day |
| Batch Processes: | | | hours/batch |
| | | | batches/day |
| | | | days/year |
| 5. Fuel Consumption: | | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | |
| 1. Diesel Fuel | < 0.05 % | 187 gal | |
| 2. | | | |
| 3. | | | |
| 6. Emissions in Tons: | | | |
| A. Actual Major: | | Potential Major: (note: before control device) | |
| B. Actual Emissions: | | NOx 0.062 SOx 0.001 VOC 0.002 PM10 .001 HAPs 0.0 | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0532 (Generator - Bldg 12A)</p> <p>1a. Date of installation (month/year): Sept. 1996</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0532</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|---------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1000 KW Emergency Generator with a 1550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete KATOLIGHT D1000FRX4 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>173 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 173 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 173 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.0496</u> SOx <u>0.0008</u> VOC <u>0.0014</u> PM10 <u>.0008</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0531 (Generator - Bldg 12A) (out of Service)</p> <p>1a. Date of installation (month/year): Sept. 1996</p> | <p>2. MDE Registration No.:(if applicable) 9-0531</p> | | | | | | | | | | | | |
|---|---|------------------------------|----------|------------------------------|----------------|----------|-------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1000 KW Emergency Generator with a 1550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete KATOLIGHT D1000FRX4 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>0 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 0 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 0 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.0</u> SOx <u>0.0</u> VOC <u>0.0</u> PM10 <u>0.0</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0476 (Generator - Bldg 59 A)</p> <p>1a. Date of installation (month/year): Sept. 1997</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0476</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|----------|----------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1500 KW Emergency Generator with a 2168 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar engine 3516 - 4T generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>1440 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 1440 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 1440 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>.3125</u> SOx <u>.005</u> VOC <u>.009</u> PM10 <u>.005</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0475 (Generator - Bldg 59 A)</p> <p>1a. Date of installation (month/year): Sept. 1997</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0475</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|----------|----------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1500 KW Emergency Generator with a 2168 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar engine 3516 - 4T generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>1440 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 1440 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 1440 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.3125</u> SOx <u>0.005</u> VOC <u>0.009</u> PM10 <u>0.005</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0474 (Generator - Bldg 59 A)</p> <p>1a. Date of installation (month/year): Sept. 1997</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0474</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|----------|----------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 1500 KW Emergency Generator with a 2168 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Caterpillar engine 3516 - 4T generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>1440 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 1440 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 1440 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.3125</u> SOx <u>0.005</u> VOC <u>0.009</u> PM10 <u>.005</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5 - 1201 (Boiler # 4 - Bldg 11)</p> <p>1a. Date of installation (month/year): 1968</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-1201</p> | | | | | | | | | | | | |
|---|--|----------------------------------|----------|------------------------------|-----------------------|--------------|----------------------------------|-------------------------------------|------------------|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One Combustion Engineering natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NOx burner system.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>NOT APPLICABLE</u></p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. <u>Natural Gas</u></td> <td><u>0.0 %</u></td> <td><u>NOT APPLICABLE – No Limit</u></td> </tr> <tr> <td>2. <u>Fuel Oil # 2 (Diesel Oil)</u></td> <td><u><0.3 %</u></td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. <u>Natural Gas</u> | <u>0.0 %</u> | <u>NOT APPLICABLE – No Limit</u> | 2. <u>Fuel Oil # 2 (Diesel Oil)</u> | <u><0.3 %</u> | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. <u>Natural Gas</u> | <u>0.0 %</u> | <u>NOT APPLICABLE – No Limit</u> | | | | | | | | | | | |
| 2. <u>Fuel Oil # 2 (Diesel Oil)</u> | <u><0.3 %</u> | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>10.99</u> SOx <u>0.526</u> VOC <u>0.52</u> PM10 <u>0.95</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5 - 1200 (Boiler # 3 - Bldg 11)</p> <p>1a. Date of installation (month/year): 1952</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-1200</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|-------|---------------------------|------------------------------|--------|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NOx burner system.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: NOT APPLICABLE</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0 %</td> <td>NOT APPLICABLE – No Limit</td> </tr> <tr> <td>2. Fuel Oil # 2 (Diesel Oil)</td> <td><0.3 %</td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 % | NOT APPLICABLE – No Limit | 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 % | NOT APPLICABLE – No Limit | | | | | | | | | | | |
| 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>4.25</u> SOx <u>0.2</u> VOC <u>0.158</u> PM10 <u>0.476</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5 - 1199 (Boiler # 2 - Bldg 11)</p> <p>1a. Date of installation (month/year): 1952</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-1199</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|-------|---------------------------|------------------------------|--------|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NOx burner system.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: NOT APPLICABLE</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0 %</td> <td>NOT APPLICABLE – No Limit</td> </tr> <tr> <td>2. Fuel Oil # 2 (Diesel Oil)</td> <td><0.3 %</td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 % | NOT APPLICABLE – No Limit | 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 % | NOT APPLICABLE – No Limit | | | | | | | | | | | |
| 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>4.15</u> SOx <u>0.2</u> VOC <u>0.56</u> PM10 <u>0.31</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 5 - 1198 (Boiler # 1 - Bldg 11)</p> <p>1a. Date of installation (month/year): 1952</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>5-1198</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|-----|--------------------------|------------------------------|--------|--|----------|--|--|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One Edgemore natural gas/No. 2 oil-fired boiler rated at 200 million Btu per hour heat input equipped with low NOx burner system.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: NOT APPLICABLE</p> <p>Continuous Processes: _____ hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p>_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Type(s) of Fuel</th> <th style="text-align: left;">% Sulfur</th> <th style="text-align: left;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Natural Gas</td> <td>0.0</td> <td>NOT APPLICABLE- No limit</td> </tr> <tr> <td>2. Fuel Oil # 2 (Diesel Oil)</td> <td><0.3 %</td> <td></td> </tr> <tr> <td>3. _____</td> <td></td> <td></td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Natural Gas | 0.0 | NOT APPLICABLE- No limit | 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | 3. _____ | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Natural Gas | 0.0 | NOT APPLICABLE- No limit | | | | | | | | | | | |
| 2. Fuel Oil # 2 (Diesel Oil) | <0.3 % | | | | | | | | | | | | |
| 3. _____ | | | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>7.0</u> SOx <u>0.7</u> VOC <u>0.82</u> PM10 <u>0.6</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



| | | | |
|---|--|---|--|
| 1. Emissions Unit No.: 5-1156(Cogeneration System B/11) | | 2. MDE Registration No.:(if applicable) 5-1156 | |
| 1a. Date of installation (month/year): July 2001 | | | |
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One 23 Megawatt Combustion Turbine Generator (CTG) and one 180,000 pound per hour Heat Recovery Steam Generator (HRSG). The CTG consists of an ABB GT10 gas turbine with dry combustion low NOx ABB EV burner system that burns natural gas. The HRSG consists of an exhaust gas waste heat recovery boiler with a supplemental steam generator that generates an addition 63 Million Btu's per hour. The HRSG is capable of operation on both natural gas and Fuel Oil 2. The Cogeneration System operates as a combined cycle unit. | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 Continuous Processes: <u>24</u> hours/day <u>365</u> days/year Batch Processes: _____hours/batch _____batches/day _____days/year | | | |
| 5. Fuel Consumption: | | | |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | |
| 1. Natural Gas | 0.0 | No Annual Fuel Usage Limit | |
| 2. Fuel Oil # 2 (Diesel Oil) | < 0.3 % | No Annual Fuel Usage Limit | |
| 3. _____ | | | |
| 6. Emissions in Tons: | | | |
| A. Actual Major: <u>X</u> | Potential Major: _____ | (note: before control device) | |
| B. Actual Emissions: | NOx <u>19.8</u> SOx <u>0.225</u> VOC <u>0.43</u> PM10 <u>3.58</u> HAPs 0.0 | _____ | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 0968 (Generator - Bldg 59)</p> <p>1a. Date of installation (month/year): July 2005</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-0968</p> | | | | | | | | | | | | |
|--|--|------------------------------|----------|------------------------------|----------------|----------|----------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>One 2000 KW Emergency Generator with a 2922 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Cummins QSK60 - G6 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>1200 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 1200 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 1200 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NOx <u>0.2604</u> SOx <u>0.004</u> VOC <u>0.08</u> PM10 <u>0.004</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| <p>1. Emissions Unit No.: 9 - 1153 (Generator - Bldg 57)</p> <p>1a. Date of installation (month/year): December 2016</p> | <p>2. MDE Registration No.:(if applicable)</p> <p>9-1153</p> | | | | | | | | | | | | |
|---|--|------------------------------|----------|------------------------------|----------------|----------|-------|----------|-------|-------|----------|-------|-------|
| <p>3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):</p> <p>Two temporary Emergency Generators in a trailer each rated at 1490 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby units consist of a complete Cummins generator and engine set. These standby generators set will each operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | |
| <p>4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:</p> <p>General Reference: <u>Part 70 Permit 24-031-00324 (260 Hrs/Yr)</u></p> <p>Continuous Processes: <u>24</u> hours/day _____ days/year</p> <p>Batch Processes: _____ hours/batch _____ batches/day</p> <p style="padding-left: 150px;">_____ days/year</p> | | | | | | | | | | | | | |
| <p>5. Fuel Consumption:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Type(s) of Fuel</th> <th style="text-align: left; width: 30%;">% Sulfur</th> <th style="text-align: left; width: 30%;">Annual Usage (specify units)</th> </tr> </thead> <tbody> <tr> <td>1. Diesel Fuel</td> <td>< 0.05 %</td> <td>0 gal</td> </tr> <tr> <td>2. _____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>3. _____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. Diesel Fuel | < 0.05 % | 0 gal | 2. _____ | _____ | _____ | 3. _____ | _____ | _____ |
| Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | |
| 1. Diesel Fuel | < 0.05 % | 0 gal | | | | | | | | | | | |
| 2. _____ | _____ | _____ | | | | | | | | | | | |
| 3. _____ | _____ | _____ | | | | | | | | | | | |
| <p>6. Emissions in Tons:</p> <p>A. Actual Major: _____ Potential Major: _____ (note: before control device)</p> <p>B. Actual Emissions: NO_x <u>0</u> SO_x <u>0</u> VOC <u>0</u> PM₁₀ <u>0</u> HAPs <u>0.0</u></p> | | | | | | | | | | | | | |



MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0764 (Generator – Bldg 33) 1a. Date of installation (month /year): July 2005 | 2. MDE Registration No.: (if applicable) 9 - 0764 | | | | | | | | | | | | | | | | |
|---|--|-------------------------------|------------------------------|-------------------------------|--|---------------|---------------|----------|-------------|----|--|--|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): <p>One 2000 KW Emergency Generator with a 2750 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Detroit Diesel DDC 16V- 4000 generator and engine set. This standby generator set will operate on average less than 260 hours per year.</p> | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 35%;">Continuous Processes:</td> <td style="width: 35%; text-align: center;">24 hours / day</td> <td style="width: 30%; text-align: center;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td style="text-align: center;">hours / batch</td> <td style="text-align: center;">batches / day</td> </tr> <tr> <td></td> <td style="text-align: center;">days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 hours / day | days / year | Batch Processes: | hours / batch | batches / day | | days / year | | | | | | | | |
| Continuous Processes: | 24 hours / day | days / year | | | | | | | | | | | | | | | |
| Batch Processes: | hours / batch | batches / day | | | | | | | | | | | | | | | |
| | days / year | | | | | | | | | | | | | | | | |
| 5. Fuel Consumption: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <th style="width: 10%;"></th> <th style="width: 40%;">Type(s) of Fuel</th> <th style="width: 20%;">% Sulfur</th> <th style="width: 30%;">Annual Usage (specify units)</th> </tr> <tr> <td>1.</td> <td>Diesel Fuel</td> <td>< 0.05 %</td> <td>462 Gal</td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> </table> | | | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | 1. | Diesel Fuel | < 0.05 % | 462 Gal | 2. | | | | 3. | | | |
| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
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| 2. | | | | | | | | | | | | | | | | | |
| 3. | | | | | | | | | | | | | | | | | |
| 6. Emissions in Tons: <table style="width: 100%; border: none; margin-top: 10px;"> <tr> <td style="width: 30%;">A. Actual Major:</td> <td style="width: 30%;">Potential Major:</td> <td style="width: 40%;">(note: before control device)</td> </tr> <tr> <td colspan="3" style="padding-top: 10px;">B. Actual Emissions: NOx <u>0.098</u> SOx <u>0.0016</u> VOC <u>0.0029</u> PM10 <u>0.0016</u> HAPs <u>0.0</u></td> </tr> </table> | | A. Actual Major: | Potential Major: | (note: before control device) | B. Actual Emissions: NOx <u>0.098</u> SOx <u>0.0016</u> VOC <u>0.0029</u> PM10 <u>0.0016</u> HAPs <u>0.0</u> | | | | | | | | | | | | |
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MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

| 1. Emissions Unit No.: 9 - 0730 (Generator – Bldg 35) 1a. Date of installation (month /year): Sept. 2004 | 2. MDE Registration No.: (if applicable) 9 - 0730 | | | | | | | | | | | | | | | | |
|--|--|-------------------------------|------------------------------|-------------------------------|---|------------------|-------------|---------------|---------------|----|--|-------------|--|----|--|--|--|
| 3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s): One 1700 KW Emergency Generator with a 2550 Brake Horsepower (BHp) engine using diesel fuel with a sulfur content < .05 %. The standby unit consists of a complete Detroit Diesel DDC 16V- 4000 generator and engine set. This standby generator set will operate on average less than 260 hours per year. | | | | | | | | | | | | | | | | | |
| 4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit: General Reference: Part 70 Permit 24-031-00324 (260 Hrs/Yr) <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">Continuous Processes:</td> <td style="width: 20%;">24</td> <td style="width: 20%;">hours / day</td> <td style="width: 20%;">days / year</td> </tr> <tr> <td>Batch Processes:</td> <td></td> <td>hours / batch</td> <td>batches / day</td> </tr> <tr> <td></td> <td></td> <td>days / year</td> <td></td> </tr> </table> | | Continuous Processes: | 24 | hours / day | days / year | Batch Processes: | | hours / batch | batches / day | | | days / year | | | | | |
| Continuous Processes: | 24 | hours / day | days / year | | | | | | | | | | | | | | |
| Batch Processes: | | hours / batch | batches / day | | | | | | | | | | | | | | |
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| | Type(s) of Fuel | % Sulfur | Annual Usage (specify units) | | | | | | | | | | | | | | |
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F

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : 5-1024 (Boiler #5 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

§60.43b(f) – Standard for particulate matter – “On or after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combust coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.” *Compliance demonstration with COMAR 26.11.09.05A(2) will be used to comply with this standard.*

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) **Distillate fuel oils, 0.3 percent;**

(c) Residual fuel oils, 1.0 percent. “

Compliance demonstration with §60.42b(i) will be used to comply with this standard’

§60.42b(j) – Standard for Sulfur dioxide – “Percent reduction requirements are not applicable to affected facilities combusting very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in §60.49b(r).”

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input: For Gas/oil only is 0.25.

Compliance demonstration with §60.44b(a) will be used to comply with this standard

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : 5-1024 (Boiler #5 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

§60.44b - Standard for Nitrogen Oxides – “(a) Except as provided under paragraph (k) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO_x) in excess of the following emission limits:” NO_x – 0.10 lb/mmBtu based on low heat release rate and NO_x – 0.2 lb/mmBtu based on high heat release rate.

§60.46b(e) – Compliance and performance test methods and procedures for particulate matter and nitrogen oxides – “To determine compliance with the emission limits for nitrogen oxides required under §60.44b, the owner or operator of an affected facility shall conduct a performance test as required under §60.8 using the continuous system for monitoring nitrogen oxides under §60.48(b).

D. Operational Limits:

The boiler shall use low NO_x burners and a flue gas recirculation system for NO_x emission control. The annual capacity factor for distillate oil shall not exceed 10 percent. (The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a calendar year, and the potential heat input to the steam generating unit had it been operating for 8760 hours during the calendar year at the maximum design heat input capacity).

[Reference: MDE Permit to Construct No. 15-5-1024]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C, 60.45b(j) Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

B. The Permittee shall obtain a certification from the fuel supplier indicating that the No. 2 fuel oil is in compliance with the limitation on the sulfur content of the fuel oil.

C. The Permittee shall maintain compliance with the NSPS standard of 0.1 lb NO_x per million Btu (30-day rolling average) using the Alternate Monitoring Plan, August 1996

§60.48b(g) – Emission and fuel monitoring for particulate matter and nitrogen oxides. “The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hr) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall: (2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to § 60.49b(c).”

Alternate Plan:

Existing process data monitoring equipment will be used to measure and record steam generating unit operating parameters for the purpose of predicting emissions. Data will be entered into a spreadsheet for reporting and calculation purposes.

The operator logs will be the primary source of predicting NO_x emissions.

Copies of the strip chart recordings and operator logs will be included with any operator logs submitted as an indicator of the accuracy of the values recorded by the operators.

Steam flow from the operators' logs will be entered into a spreadsheet daily to calculate NO_x emissions and to determine a 30-day rolling average using the algorithms in **Attachment 1. (See page 33).**

The Permittee must comply with the Quality Assurance/Quality Control (QA/QC) Plan submitted to the Department on January 8, 2003. Prior to making any changes to the Plan, the Permittee shall request approval from the Department. See Plan attached on Page 47.

D. Operational Limit: The Permittee shall calculate the capacity factor for the previous rolling 12-month period the end of each month.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Testing: Reference PTC 15-5-1156N issued October 14, 1998, Part D(4) Describe: _____

A. None.

B. None.

C. The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing.

D. None.

Record Keeping: Reference COMAR 26.11.03.06C, §60.49b(r), §60.49b(d) Describe: _____

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

A. The Permittee shall maintain records of the results of visual emissions observations for a period of at least 5 years.

B. §60.49b(r). "The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. For the purpose of this section, the oil need not meet the fuel nitrogen content specification in the definition of distillate oil."

C. The Permittee shall maintain results of NO_x stack tests and alternate monitoring data collected.

D. Operational Limit: The Permittee shall maintain a record of the annual capacity factor.

Reporting: Reference §60.49b(i), (s), (c), (h), (h)(2), MDE Permit to Construct No. 15-5-1024

Describe: _____

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations."

B. §60.49b(j). "The owner or operator of any affected facility subject to the sulfur dioxide standards under §60.42b shall submit written reports." §60.49b(s). "The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator (The Department) and shall be postmarked by the 30th day following the end of the reporting period."

C. §60.49b(c) – Reporting and record keeping requirements. "The owner or operator of each affected facility subject to the nitrogen oxides standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j)."

§60.49b(h). "The owner or operator of any affected facility in any category listed in paragraphs (h) (1) or (2) of this section is required to submit excess emissions reports for any excess emissions which occurred during the reporting period."

§60.49b(h)(2). "Any affected facility that is subject to the nitrogen standard of §60.44b, and that: (i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, or (ii) Has a heat input capacity of 73 MW (250 million Btu/hr) or less and is required to monitor

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

nitrogen oxides emissions on a continuous basis under 60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2)."

D. Operational Limit: The Permittee shall submit to the Department the annual capacity factor with the annual emissions certification report due April 1.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-1156 (Cogeneration - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : 5-1156 (Cogeneration B/11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

§60.43b(f) – Standard for particulate matter – “On or after the date on which the initial performance test is completed or is required to be completed under §60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combust coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.” *Compliance demonstration with COMAR 26.11.09.05A(2) will be used to comply with this standard.*

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent. “

Compliance demonstration with §60.42b(j) will be used to comply with this standard

§60.42b(j) – Standard for Sulfur dioxide – “Percent reduction requirements are not applicable to affected facilities combusting very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine sulfur dioxide emission rate or fuel oil sulfur content; or (2) maintaining fuel receipts as described in §60.49b(r).”

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. : 5-1156 (Cogeneration B/11) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

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

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

Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

§60.332 - Standard for nitrogen oxides. "(d) Stationary gas turbines with a manufacturer's rated base load at ISO conditions of 30 megawatts or less except as provided in §60.332(b) shall comply with paragraph (a)(2) of this section."

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

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

STD = allowable NO_x emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = manufacturer's rated heat rate at manufacture'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.

F = NO_x emissions allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section."

Compliance with the Permit to Construct 15-5-1156 N issued October 14, 1998, limitation will be used to demonstrate compliance with COMAR 26.11.09.08G(2) and §60.332.

The Permittee shall not discharge into the atmosphere from the stationary gas turbine NO_x emission in excess of 45 ppmdv (15 percent oxygen on a dry basis) averaged on a 1-hour basis when using fuel oil and 15ppmdv (15 percent oxygen on a dry basis) when burning natural gas. [Reference: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]

D. Operational Limits:

Total NO_x emissions from the Cogeneration Utility System shall not exceed 55.6 tons per year. The total NO_x emissions from boilers #1,2,3,4, and 5 shall not exceed 81.7 tons per year. [Reference: MDE Permit to Construct No. 15-5-1156 issued October 14,1998]

Permit Shield Request:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C, NIH Alternative Fuel Monitoring Plan dated October 23, 2002.
Describe: _____

- A. The Permittee shall verify no visible emissions when burning No. 2 fuel oil. An observer shall perform a visual observation of stack emissions for 12-minute period once every 168 hours of operation on oil or at a minimum once per year.

The Permittee shall perform the following, if emissions are visible to human observer:

(a) inspect combustion control system and boiler operations,

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

(c) document in writing the results of inspections, adjustments and/or repairs to the boiler.

The Permittee shall after 48 hours of operation, if the required adjustments and/or repairs had not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

- B. The Permittee conduct the following sulfur monitoring for NSPS:

(1) Analytical Methods: Analyses indicating the fuel sulfur content of the pipeline quality natural gas will be provided by the natural gas supplier, or performed using one of the approved ASTM reference methods specified in 40 CFR 60.335(b) for the measurement of sulfur in gaseous fuels, or an approved alternative method.

(2) Monitoring Frequency: Effective the date the NIH Cogeneration System completes emission/compliance testing, representative fuel sulfur analyses will be obtained on a quarterly basis. If this indicates consistent compliance with sulfur limits in 40 CFR 60.333, for eight consecutive quarters, then representative sulfur analyses shall be obtained once per year thereafter.

(3) Non-compliance Procedure: Should any sulfur analysis indicate non-compliance with sulfur limits in 40 CFR 60.333, the owner or operator shall notify the MDE and the EPA of any excess emissions and the custom schedule shall be reexamined by the Maryland Department of the Environment. In this event, representative natural gas fuel and fuel oil sulfur analyses shall be obtained monthly until; this custom monitoring schedule has been re-examined, approved and implemented.-

- C. The Permittee shall operate a continuous emission monitoring system to continuously monitor the NO_x emissions. The CEM system shall meet the performance specification of 40 CFR Part 60, Appendix B and shall meet the quality assurance criteria of 40 CFR Part 60, Appendix F.

- D. Operational Limit: The Permittee shall calculate the total NO_x emissions from the cogeneration system and boilers 1 thru 5 at the end of each month for the month and the previous 12-month rolling period.

Testing: Reference COMAR 26.11.03.06C and §60.8 Describe: _____

A. None.

B. None.

- C. The Permittee shall perform an initial performance test within 60 days of achieving maximum production rate, but no later than 180 days after initial startup. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit the

SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
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results of stack test to the Department within 45 days after completing the tests.

D. Operational Limit: None.

Record Keeping: Reference COMAR 26.11.03.06C, §60.48c(g), NIH Alternative Fuel Monitoring Plan dated October 23, 2002 Describe: _____

A. Permittee shall:

- (1) Maintain an operation manual and prevention maintenance plan on site;
- (2) Maintain a record of the maintenance performed that relates to combustion performance;
- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
- (4) Maintain a record of the hours that No.2 fuel oil is burned.

B. All fuel monitoring records pertaining to the Alternative Fuel Monitoring Schedule will be retained on site for at least five years.

§60.48c(g). "The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day."

C. The Permittee shall maintain results of stack test and CEM data collected and results of CEM QA/QC activities.

D. Operational limit: The Permittee shall maintain records of the total NO_x emissions calculated on a rolling 12-month period.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

D. Reporting: Reference COMAR 26.11.03.06C, MDE Permit to Construct No.15-5-1156 issued October 14, 1998]. COMAR 26.11.01.10G(2)(d) §60.48c(j) Describe: _____

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall submit to the Department all fuel monitoring records pertaining to the Alternative Monitoring Schedule after every six-month period.

§60.48c(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period."

C. The Facility shall submit an emission testing protocol, including a scheduled test date, to the Department for review and approval at least 45 days prior to the performance of any emission test.

Within 45 days after the stack tests, the Facility shall submit to the Department the results of the stack test which shall include, at a minimum, the following information for each emission test conducted:

- (a) Length, in minutes, of each test;
- (b) Pounds of steam produced;
- (c) Amounts of each fuel combusted;
- (d) Average NO_x emission in pounds per million Btu; and
- (e) Hourly NO_x emission rate.

The Permittee shall comply with COMAR 26.11.01.10G(2)(d). – CEM Data Reporting Requirements. "A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

- (i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;
- (ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;
- (iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the validity of emission data;
- (iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;
- (v) Quarterly quality assurance activities; and
- (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and
- (vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation."

D. Operational Limit: The Permittee shall report the total NO_x emissions from the Cogeneration system and Boilers #1 thru #5 in the emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-1198 (Boiler #1 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 5-1198 (Boiler # 1 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent. “

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input for wall-fired boilers: *Using Gas/oil only is 0.25.*

[Reference: MDE Permit to Construct 15-5-1156 issued October 14, 1998]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Testing: Reference PTC 15-5-1156N issued October 14, 1998, Part D(4) Describe: _____

A. None.

B. None.

C. The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

A. The Permittee shall:

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
- (4) Maintain a record of the hours that No.2 fuel oil is burned.

B. The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request.

C. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input.

Reporting: Reference COMAR 26.11.09.07C, COMAR 26.11.01.04A. Describe:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall submit a test protocol/notification to the Department at least 30 days prior to test. The Permittee shall also notify the Department at least 10 days prior to the testing and submit the testing report within 45 days from test completion.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-1199 (Boiler #2 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. : MDE 5-1199 (Boiler # 2 - Bldg 11) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent. “

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input for wall-fired boilers: *Using Gas/oil only is 0.25.*

[Reference: MDE Permit to Construct 15-5-1156 issued October 14, 1998]

Permit Shield Request:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

A. The Permittee shall: _____

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer: _____

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall: _____

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Testing: Reference PTC 15-5-1156N issued October 14, 1998, Part D(4) Describe: _____

A. None. _____

B. None. _____

C. The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

A. The Permittee shall: _____

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

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

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

B. The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request.

C. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input.

Reporting: Reference COMAR 26.11.09.07C, COMAR 26.11.01.04A. Describe:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall submit a test protocol/notification to the Department at least 30 days prior to test. The Permittee shall also notify the Department at least 10 days prior to the testing and submit the testing report within 45 days from test completion.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-1200 (Boiler #3 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 5-1200 (Boiler # 3 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent. “

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input for wall-fired boilers: **Using Gas/oil only is 0.25.**

[Reference: MDE Permit to Construct 15-5-1156 issued October 14, 1998]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Testing: Reference PTC 15-5-1156N issued October 14, 1998, Part D(4) Describe: _____

A. None.

B. None.

C. The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

A. The Permittee shall:

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
- (4) Maintain a record of the hours that No.2 fuel oil is burned.

B. The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request.

C. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input.

Reporting: Reference COMAR 26.11.09.07C, COMAR 26.11.01.04A. Describe:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall submit a test protocol/notification to the Department at least 30 days prior to test. The Permittee shall also notify the Department at least 10 days prior to the testing and submit the testing report within 45 days from test completion.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-1201 (Boiler #4 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 5-1201 (Boiler # 4 - Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) – Control of Sulfur Oxides from fuel burning equipment. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent. “

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input for wall-fired boilers: *Using Gas/oil only is 0.25.*

[Reference: MDE Permit to Construct 15-5-1156 issued October 14, 1998]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Testing: Reference PTC 15-5-1156N issued October 14, 1998, Part D(4) Describe: _____

A. None.

B. None.

C. The Permittee shall conduct a stack test to determine the NO_x emissions rate on each of the boilers while burning natural gas and while burning No. 2 fuel oil at least once every two years. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. The Permittee shall submit stack test results to the Department 45 days after the performance testing.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g), COMAR 26.11.09.07C].

Describe: _____

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

A. The Permittee shall:

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

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

- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
- (4) Maintain a record of the hours that No.2 fuel oil is burned.

C. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input.

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

C. The Permittee shall submit a test protocol/notification to the Department at least 30 days prior to test. The Permittee shall also notify the Department at least 10 days prior to the testing and submit the testing report within 45 days from test completion.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0474 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0474 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0474 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C).

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0475 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. : MDE 9-0475 (Bldg 59A) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions: COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0475 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0476 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0476 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0476 (Bldg 59A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0531 (Bldg 12A) **General Reference:** COMAR 26.11.09
OUT OF SERVICE

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0531 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0531 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____

B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____

C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____

D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

A. None. _____

B. None. _____

C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____

D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____

B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____

C. The Permittee shall: _____

(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____

(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

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

(3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C.
Describe:

C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0532 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0532 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0532 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0533 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. : MDE 9-0533 (Bldg 12A) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0533 (Bldg 12A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0561 (Bldg 45) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0561 (Bldg 45) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0561 (Bldg 45) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0562 (Bldg 10A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: **SEE ATTACHED SHEETS.**

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Emissions Unit No. : MDE 9-0562 (Bldg 10A) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0562 (Bldg 10A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0568 (Bldg 49) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0568 (Bldg 49) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Form Number:

Revision Date: 4/29/03

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0568 (Bldg 49) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0582 (Bldg 37) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0582 (Bldg 37) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0582 (Bldg 37) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C).

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0583 (Bldg 50) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Emissions Unit No. : MDE 9-0583 (Bldg 50) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

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

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

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

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

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

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

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

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

Permit Shield Request:

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0583 (Bldg 50) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C).

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0584 (Bldg 40) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: **SEE ATTACHED SHEETS.**

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0584 (Bldg 40) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0584 (Bldg 40) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0599 (Bldg 29B) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0599 (Bldg 29B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0599 (Bldg 29B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

Maryland Department of the Environment
Section 3B: Citation to and Description of Applicable Federally Enforceable Requirements

Emissions Unit No. MDE 9-0633 (Bldg 12 UST) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

Maryland Department of the Environment

Section 3B: Citation to and Description of Applicable Federally Enforceable Requirements

Emissions Unit No. : 9-0633 (Gas Station) **General Reference:** COMAR 26.11.13

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.13.04C-Small Storage Tanks.

(2) Stage I Vapor Recovery. An owner or operator of a gasoline tank truck or an owner or operator of a stationary storage tank subject to this regulation may not cause or permit gasoline to be loaded into a stationary tank unless the loading system is equipped with a vapor balance line that is properly installed, maintained and used."

COMAR 26.11.13.04D - General Standards. "A person may not cause or permit a gasoline or VOC having a TVP of 1.5 psia (10.3 kilonewtons/square meter) or greater to be loaded into any truck, railroad tank car, or other contrivance unless the:

(1) Loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of gasoline or VOC from these fittings; and

(2) Equipment is maintained and operated in a manner to prevent avoidable liquid leaks during loading and unloading operations.

Permit Shield Request:

Maryland Department of the Environment

Section 3B: Citation to and Description of Applicable Federally Enforceable Requirements

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

At least once a month during a delivery, the Permittee shall monitor the fuel drop for liquid spills and at least once every three months, check the fittings at the station for proper operation and seal.

Testing: Reference _____ Describe: _____

None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.24.07D

Describe: _____

The equipment maintenance records shall include:

(1) The date on which defective equipment was found, a description of each defect, a description of the corrective action and date on which the defect was corrected, and the probable cause of the defect;

(2) If parts are replaces, the location within the approved system of the part, the part number, and assurance that the replacement part does not degrade the efficiency of the system; and

(3) Inspection reports and any other information relating to maintenance or care of the system.

These records shall be kept on site for a period of at least 5 years.

COMAR 26.11.24.07D - Recording keeping and Reporting Requirements.

"Requirements for Gasoline Dispensing Facilities Exempted by Regulation .02C of this chapter.

(1) An owner or operator of a gasoline dispensing facility exempted according to Regulation .02C of this chapter shall create and maintain records on gasoline throughput and tank sizes and make the records available to the Department upon request.

(2) An owner or operator shall install and operate an approved system within 1 year after any calendar year in which the average monthly gasoline throughput at the facility during the calendar year exceeds 50,000 gallons per month for existing independent small business gasoline marketers, or 10,000 gallons per month for other existing gasoline dispensing facilities. The owner and operator of these facilities is subject to all applicable requirements of this chapter."

Reporting: Reference COMAR 26.11.03.06C, Describe: _____

The Permittee shall make records available to the Department upon request.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0728 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0728 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0728 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

Methods Used to demonstrate compliance:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

(3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.
Describe:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

Emissions Unit No. MDE 9-0728 (Bldg 35) **General Reference:** COMAR 26.11.09

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

(3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.

Describe:

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

Emissions Unit No. MDE 9-0728 (Bldg 35) **General Reference:** COMAR 26.11.09

Form Number: MDE/ ARMA/PER.020 Page 6 of 16

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Revision Date: 4/29/03

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0729 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0729 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

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

Emissions Unit No. MDE 9-0729 (Bldg 35) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0730 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0730 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. MDE 9-0730 (Bldg 35) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0730 (Bldg 35) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0764 (Bldg 33) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: **SEE ATTACHED SHEETS.**

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0764 (Bldg 33) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request:

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0764 (Bldg 33) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0783 (Bldg 6B) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0783 (Bldg 6B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0783 (Bldg 6B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0784 (Bldg 14A) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0784 (Bldg 14A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0784 (Bldg 14A) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0786 (Bldg 10B) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0786 (Bldg 10 B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05E(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05E(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions: COMAR 26.11.09.05E(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. : MDE 9-0786 (Bldg 10 B) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe:

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe:

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe:

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0787 (Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0787 (Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0787 (Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

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

(3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C]

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0872 (Bldg 6) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0872 (Bldg 6) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:

(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0872 (Bldg 6) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NOx Requirements.”A. General requirements and Exemptions for
Emergency Generators and Load Shaving Units.”

(1) ”The owner or operator of an emergency generator may not operate the generator except for
emergencies, testing, and maintenance purposes.”

(4) ”the owner or operator of an emergency generator for load shaving unit may be subject to the federal
standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) ”The owner or operator of an emergency generator or load shaving unit may not operate the engine
for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the
Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the
engine fails a test and engine maintenance and a retest are necessary”

(6) ”The owner or operator of an engine that is used for any purpose other than for emergency purposes
shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining
the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an
approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel
generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or
less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating
Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of
the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by
meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR
Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under
this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

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

(3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

Describe:

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0881 (Bldg 10 CRC Data) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0881 (Bldg 10 CRC Data) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:
(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0881 (Bldg 10 CRC Data) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NO_x Requirements.”A. General requirements and Exemptions for Emergency Generators and Load Shaving Units.”

(1) ”The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.”

(4) ”the owner or operator of an emergency generator for load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) ”The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the engine fails a test and engine maintenance and a retest are necessary”

(6) ”The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0914 (Bldg 12 Rplcmt) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0914 (Bldg 12 Rplcmt) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:
(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0914 (Bldg 12 Rplcmt) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NOx Requirements.”A. General requirements and Exemptions for Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0920 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Emissions Unit No. MDE 9-0920 (Bldg 12UPS) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:

(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0920 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NO_x Requirements.”A. General requirements and Exemptions for Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
(1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
(2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0921 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0921 (Bldg 12UPS) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:
(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0921 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NO_x Requirements.” A. General requirements and Exemptions for Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0922 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0922 (Bldg 12UPS) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:

(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0922 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NOx Requirements.”A. General requirements and Exemptions for
Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for
emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal
standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine
for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the
Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the
engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes
shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining
the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an
approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel
generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or
less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating
Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of
the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by
meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR
Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under
this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0923 (Bldg 12 UPS) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

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

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Emissions Unit No. MDE 9-0923 (Bldg 12UPS) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:
(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

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

Emissions Unit No. MDE 9-0923 (Bldg 12 UPS) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NO_x Requirements.” A. General requirements and Exemptions for Emergency Generators and Load Shaving Units.”

(1) ”The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes.”

(4) ”the owner or operator of an emergency generator for load shaving unit may be subject to the federal standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) ”The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the engine fails a test and engine maintenance and a retest are necessary”

(6) ”The owner or operator of an engine that is used for any purpose other than for emergency purposes shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0968 (Bldg 59) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Emissions Unit No. MDE 9-0968 (Bldg 59) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0968 (Bldg 59) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0969 (Bldg 59) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0969 (Bldg 59) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions, COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system.

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent;

(b) Distillate fuel oils, 0.3 percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

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

Permit Shield Request: _____

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

Emissions Unit No. MDE 9-0969 (Bldg 59) General Reference: COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 15-9-0562, 0531 thru 0533, 0474 thru 0476, 0561, 0568, 0582 thru 0584, 0599]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0992 (Bldg 10, F Wng) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0992 (Bldg 10 F Wng) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05E(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05E(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05E(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:

(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0992 (Bldg 10 F Wng) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NOx Requirements.”A. General requirements and Exemptions for
Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for
emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal
standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine
for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the
Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the
engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes
shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining
the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an
approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel
generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or
less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating
Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of
the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by
meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR
Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under
this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions.
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation.
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion.
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months.

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None.
- B. None.
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year.
- D. None.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request.
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years.
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request.
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1027 (Bldg 38) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1027 (Bldg 38) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05E(2), Stationary Internal Combustion Engine Powered Equipment.

(2) "Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05E(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05E(4)

"(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing 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 E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2)(b) Control of Sulfur Oxides from fuel burning equipment. 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: In Areas III and IV:
(b) Distillate fuel oils, 0.3 percent;

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent.

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

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

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

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

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

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

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1027 (Bldg 38) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

COMAR 26.11.09.08-1 – Additional NOx Requirements.”A. General requirements and Exemptions for
Emergency Generators and Load Shaving Units.”

(1) “The owner or operator of an emergency generator may not operate the generator except for
emergencies, testing, and maintenance purposes.”

(4) “the owner or operator of an emergency generator for load shaving unit may be subject to the federal
standards for stationary internal combustion engines under 40 CFR Parts 60 and 63.”

(5) “The owner or operator of an emergency generator or load shaving unit may not operate the engine
for testing and engine maintenance purposes between 12:01 AM and 2 PM on any day on which the
Department forecasts that the air quality will be a Code Orange, Code Red, or Code Purple unless the
engine fails a test and engine maintenance and a retest are necessary”

(6) “The owner or operator of an engine that is used for any purpose other than for emergency purposes
shall install and operate a non-resettable hourly time meter on the engine for the purpose of maintaining
the operating log required in Para. E of this regulation.”

D. Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an
approval from the Department..

In accordance with 40 CFR Part 60.4211(e), non-emergency use of each NSPS emergency diesel
generator for the purpose of maintenance checks and readiness testing is limited to 100 hours per year or
less unless prior approval is received from the Department.

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating
Internal Combustion Engines: “40 CFR Part 63.6590.

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of
the criteria in paragraph (c) (1) through (7) of this section must meet the requirements of this part by
meeting the requirements of 40 CFR Part 60 Subpart IIII for compression ignition engines or 40 CFR
Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under
this Part.

(1) A new or reconstructed stationary RICE located at an area source”

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Compliance Demonstration:

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b) Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
- (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
- (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C1.

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1203 (Bldg T30) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system .

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent: percent;

(b) Distillate fuel oils, 0.3 percent: percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. percent.

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

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

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

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

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

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

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

Permit Shield Request:

Emissions Unit No. : MDE 9-1203 (Bldg T30) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D.Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 9- 1153.

Compliance Demonstration:

Check Appropriate Reports to be submitted:

[] Quarterly Monitoring Report:_____

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Recycled Paper

[X] Annual Compliance Certification: _____
[] Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-2403 and 5-2404 (2Permanent Boilers Infront of Bldg. 11) **General Reference:**
COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08 F- Requirements for Space Heaters.

(1) A Person who owns or operates a space heater as defined in Regulation. .01 B of this chapter shall:

(a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;

(b) Develop an operating and maintenance plan to minimize NO_x emissions based on recommendations of equipment vendors and other information including the source’s operating and maintenance experience

(c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department

(d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department , the EPA or equipment vendors; and

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

Permit Shield Request: _____

Compliance Demonstration:

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**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

B. The Permittee shall:

- (3) Properly operate and maintain the boilers; and
- (4) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer: _

- (5) Inspect combustion control system and boiler operations,
- (6) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (7) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (8) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1263 (Bldg 45) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system .

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent: percent;

(b) Distillate fuel oils, 0.3 percent: percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. percent.

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

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

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

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

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

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

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

Permit Shield Request:

Emissions Unit No. : MDE 9-1263 (Bldg 45) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D.Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 9- 1153.

Compliance Demonstration:

Check Appropriate Reports to be submitted:

[] Quarterly Monitoring Report: _____

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[X] Annual Compliance Certification: _____

[] Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe: _____

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.

D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-0698 (Bldg 11) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system .

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent: percent;

(b) Distillate fuel oils, 0.3 percent: percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. percent.

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

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

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

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

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

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

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

Permit Shield Request:

Emissions Unit No. : MDE 9-0698 (Bldg 11) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D.Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 9- 1153.

Compliance Demonstration:

Check Appropriate Reports to be submitted:

[] Quarterly Monitoring Report:_____

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[X] Annual Compliance Certification: _____

[] Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1175 (Bldg 10E) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system .

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent: percent;

(b) Distillate fuel oils, 0.3 percent: percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. percent.

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

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

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

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

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

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

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

Permit Shield Request:

Emissions Unit No. : MDE 9-1175 (Bldg 10 E) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D.Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 9- 1153.

Compliance Demonstration:

Check Appropriate Reports to be submitted:

[] Quarterly Monitoring Report:_____

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[X] Annual Compliance Certification: _____

[] Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 9-1219 (Bldg 4) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05B(2), Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance.

COMAR 26.11.09.05B(3), Emission 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." This requirement is not applicable during Preventative Maintenance.

Exceptions. COMAR 26.11.09.05B(4)

"(a) Section B(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system .

(b) Section B(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 B(2) and B(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

B. Sulfur Oxides Emissions

COMAR 26.11.09.07A(2) Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV:

(a) All solid fuels, 1.0 percent: percent;

(b) Distillate fuel oils, 0.3 percent: percent;

(c) Residual fuel oils, 1.0 percent.

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. percent.

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

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

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

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

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

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

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

Permit Shield Request:

Emissions Unit No. : MDE 9-1219 (Bldg 4) **General Reference:** COMAR 26.11.09

Briefly Describe the Emission Standard/Limit or Operational Limitation:

D.Operational Limit:

Each emergency generator shall not operate more than 260 hours per year unless the source obtains an approval from the Department. [Reference: MDE Permit to Construct 9- 1153.

Compliance Demonstration:

Check Appropriate Reports to be submitted:

[] Quarterly Monitoring Report:_____

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[X] Annual Compliance Certification: _____

[] Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: _____

Monitoring: Reference COMAR 26.11.03.06C Describe: _____

- A. The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. _____
- B. The Permittee shall obtain a certification from the fuel supplier that the fuel oil is in compliance with the sulfur in fuel limitation. _____
- C. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. _____
- D. The Permittee shall calculate the number of hours each engine operated during the month and during the previous 12 rolling months. _____

Testing: Reference COMAR 26.11.09.08G(1)(b)] Describe: _____

- A. None. _____
- B. None. _____
- C. The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. _____
- D. None. _____

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), COMAR 26.11.09.07C]. Describe: _____

- A. The Permittee shall maintain on site an operations manual and prevention maintenance plan that relates to combustion performance, and maintain a record of the maintenance performed that relates to combustion performance. The Permittee shall make the manual, plan and records available to the Department's representative upon request. The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. _____
- B. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation for at least 5 years. _____
- C. The Permittee shall:
 - (1) Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. _____
 - (2) Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. _____

Methods Used to demonstrate compliance:

- (3) Retain records of hours of operation on a monthly basis for all generators. At the end of each month, the Permittee shall calculate the total hours for the prior rolling 12-month period.

- D. Operational Limit: The Permittee shall maintain a record of the hours of operation for each generator.

Reporting: Reference COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(a), COMAR 26.11.09.07C].

Describe:

- A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations"
- B. The Permittee shall report fuel supplier certification to the Department upon request.
- C. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report.
- D. Operational Limit: The Permittee shall report the monthly hours of operation for the generators to the Department in the annual emission certification report due on April 1 of each year.

Frequency of submittal of the Compliance demonstration: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-2385 (Boiler Bldg. 82) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08 F- Requirements for Space Heaters.

(1) A Person who owns or operates a space heater as defined in Regulation. .01 B of this chapter shall:

(a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;

(b) Develop an operating and maintenance plan to minimize NO_x emissions based on recommendations of equipment vendors and other information including the source’s operating and maintenance experience

(c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department

(d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department , the EPA or equipment vendors; and

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

Permit Shield Request: _____

Compliance Demonstration:

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**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

B. The Permittee shall:

- (3) Properly operate and maintain the boilers; and
- (4) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer: _

- (5) Inspect combustion control system and boiler operations,
- (6) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (7) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (8) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-2397 (Boiler Bldg. 15K) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08 F- Requirements for Space Heaters.

(1) A Person who owns or operates a space heater as defined in Regulation. .01 B of this chapter shall:

(a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;

(b) Develop an operating and maintenance plan to minimize NO_x emissions based on recommendations of equipment vendors and other information including the source’s operating and maintenance experience

(c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department

(d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department , the EPA or equipment vendors; and

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

Permit Shield Request: _____

Compliance Demonstration:

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**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

B. The Permittee shall:

- (3) Properly operate and maintain the boilers; and
- (4) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (5) Inspect combustion control system and boiler operations,
- (6) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (7) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (8) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Emissions Unit No. MDE 5-2287 (Boiler Bldg. 62) **General Reference:** COMAR 26.11.09

Briefly describe the Emission Standard/Limit or Operational Limitation:

SEE ATTACHED SHEETS

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance: SEE ATTACHED SHEETS.

Monitoring: Reference _____ Describe: _____

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____

Reporting: Reference _____ Describe: _____

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

Briefly Describe the Emission Standard/Limit or Operational Limitation:

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.”

Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, start-up, or occasional cleaning of control equipment which do not exceed 40 percent opacity for a period or periods aggregating not more than 6 consecutive minutes in any 60 minutes.”

B. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08 F- Requirements for Space Heaters.

(1) A Person who owns or operates a space heater as defined in Regulation. .01 B of this chapter shall:

(a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;

(b) Develop an operating and maintenance plan to minimize NO_x emissions based on recommendations of equipment vendors and other information including the source’s operating and maintenance experience

(c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department

(d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department , the EPA or equipment vendors; and

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

Permit Shield Request: _____

Compliance Demonstration:

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**SECTION 3B: CITATION TO AND DESCRIPTION OF APPLICABLE
FEDERALLY ENFORCEABLE REQUIREMENTS**

Check Appropriate Reports to be submitted:

☐ Quarterly Monitoring Report: _____

☒ Annual Compliance Certification: _____

☐ Semi-Annual Monitoring Report: _____

Methods Used to demonstrate compliance:

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

Monitoring: Reference COMAR 26.11.03.06C

Describe: _____

B. The Permittee shall:

- (3) Properly operate and maintain the boilers; and
- (4) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (5) Inspect combustion control system and boiler operations,
- (6) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (7) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (8) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.
- (2) calculate the heat input of the boilers by type of fuel at the end of each month.

Record Keeping: Reference COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g)], COMAR 26.11.09.07C].

Describe: _____

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

G

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

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

Emissions Unit No.: 5-1156 Permit to Construct No. 15-5-1156 N

| Emissions Point No. | Date Permit Issued | Condition No. | Brief Description of Condition and Reason for Exclusion |
|---------------------|--------------------|---------------|---|
| 5-1156 | 12/1998 | §60.42c | COMAR 26.11.09.07A(2) imposes stricter standards, and renders this section extraneous |
| 5-1156 | 12/1998 | §60.330 | COMAR 26.11.09.07A(2) imposes stricter standards, and renders this section extraneous |
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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3C. OBSOLETE, EXTRANEEOUS, OR INSIGNIFICANT PERMIT
CONDITIONS**

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

Emissions Unit No.: 9-0863 Permit to Construct No. 031-6-0863 N

| Emissions Point No. | Date Permit Issued | Condition No. | Brief Description of Condition and Reason for Exclusion |
|---------------------|--------------------|---------------|--|
| 9-0863 | July 9, 2007 | All | Unit was never constructed, and should be removed from the permit. |
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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**SECTION 3C. OBSOLETE, EXTRANEEOUS, OR INSIGNIFICANT PERMIT
CONDITIONS**

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

Emissions Unit No.: NOT APPLICABLE Permit to Construct No.

| Emissions Point No. | Date Permit Issued | Condition No. | Brief Description of Condition and Reason for Exclusion |
|---------------------|--------------------|---------------|---|
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H

Section 3D: ALTERNATIVE OPERATING SCENARIO

Emissions Unit No. : 5-1156 Cogeneration System

Briefly Describe the Emission Standard/Limit or Operational Limitation:

Scenario #1

In this scenario, we only operate the low pressure boilers if either the cogeneration plant or one of the main boilers is off line for major repairs.

Section 3D: ALTERNATIVE OPERATING SCENARIO

Emissions Unit No. : One Power Plant Boiler (5-1024, 5-1198, 5-1199, 5-1200, Or 5-1201)

Briefly Describe the Emission Standard/Limit or Operational Limitation:

Scenario #2

In this scenario, we only operate the low pressure boilers if either the cogeneration plant or one of the main boilers is off line for major repairs.

I

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Scenario No. : Scenario # 1 (Cogeneration System) and Scenario # 2 (Power Plant Boilers)

Emissions Unit No.: 5-1156 (Cogen. Systm) and 5-1024, 5-1198, 5-1199, 5-1200, or 5-1201
(Respectively)

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

SEE ATTACHED SHEET

Compliance Demonstration

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: SEE ATTACHED SHEET

Testing: Reference _____ Describe: SEE ATTACHED SHEET

Record Keeping: Reference _____ Describe: SEE ATTACHED SHEET

Reporting: Reference _____ Describe: SEE ATTACHED SHEET

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

**Emissions Unit No. : 5-1156 (Cogen. System) and 5-1024, 5-1198, 5-1199, 5-1200, or 5-1201
(Respectively)**

Briefly Describe the Emission Standard/Limit or Operational Limitation:

(1) This source is subject to all applicable Federal and local requirements, including but not limited to the Federal New Source Performance Standards (NSPS) for *Small Industrial-Commercial-Institutional Steam Generating Units with a heat input capacity less than 100 million Btu/hour but greater than 10 million Btu/hour for which construction began after June 9, 1989, 40 CFR 60, Subpart Dc, which include the following:*

(a) **§60.40c - Applicability and delegation of authority.**

“(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).”

(b) **§60.42c - Standard for sulfur dioxide**

“(d) On and after the date on which the initial performance test is completed or required to be completed under Sec. 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.”

“(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).”

“(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.”

(c) **§60.43c - Standard for particulate matter**

“(c) On and after the date on which the initial performance test is completed or required to be completed under Sec. 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than **20 percent opacity (6-minute average)**, except for one 6-minute period per hour of not more than 27 percent opacity.”

“(d) The PM and opacity standards under this Section apply at all times, except during periods of startup, shutdown, or malfunction.”

“(e) On and after the date on which the initial performance test is completed or is required to be completed under Sec. 60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under Sec. 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this Section.”

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

Emissions Unit No. : 5-1156 (Cogen. System) and 5-1024, 5-1198, 5-1199, 5-1200, or 5-1201
(Respectively)

Briefly Describe the Emission Standard/Limit or Operational Limitation:

- (2) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:

COMAR 26.11.02.09A – Sources subject to Permits to Construct and Approval. “A person 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: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter--permit to construct required.”

COMAR 26.11.03.14A – Revisions of Part 70 permits – General Requirements.

“The Permittee shall submit an application to the Department to revise a Part 70 permit when required under Regulations. 15-.17 of this chapter.”

A. Visible Emissions

COMAR 26.11.09.05A(2) – Visible Emissions. “A person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.

COMAR 26.11.09.05A(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.”

B. Sulfur Oxide Emissions

- (a) COMAR 26.11.09.07A(2)(b) – Control of Sulfur Oxides from Fuel-burning Equipment.

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

C. Nitrogen Oxides Emissions

COMAR 26.11.09.08 - Control of NO_x Emissions for Major Stationary Sources

COMAR 26.11.09.08B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NO_x emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NO_x per MMBtu of heat input for wall-fired boilers: *Using Gas/oil only is 0.25.*

[Reference: MDE Permit to Construct 15-5-1156 issued October 14, 1998]

Permit Shield Request: _____

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Compliance Demonstration:

Check Appropriate Reports to be submitted:

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

Methods used to demonstrate compliance:

Monitoring: COMAR 26.11.03.06C Describe: _____

A. The Permittee shall:

- (1) Properly operate and maintain the boilers; and
- (2) Verify no visible emissions when burning No.2 fuel oil. The Permittee shall perform a visual observation of stack emissions for a 6-minute period once every 168 hours of operation on oil or at a minimum once per year. This requirement is waived if the boiler burns No. 2 fuel oil for less than a total of 72 hours in a calendar year.

The Permittee shall perform the following, if emissions are visible to human observer:

- (1) Inspect combustion control system and boiler operations,
- (2) Perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and
- (3) Document in writing the results of inspections, adjustments and/or repairs to the boiler.
- (4) After 48 hours of operation, if the required adjustments and/or repairs have not eliminated the visible emissions, perform a Method 9 observation once daily when boilers operating on No.2 fuel oil for 18 minutes until corrective action have eliminated the visible emissions.

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

C. The Permittee shall:

- (1) measure the NO_x content of the flue gases from each boiler for a 3 to 5-minute period every 168 hours of operation. The Permittee shall use an analyzer that is properly calibrated and maintained in accordance with the vendor specification. The analyzer shall be the type approved by the Department.

Testing: COMAR 26.11.01.04A(1) Describe: _____

COMAR 26.11.01.04A(1) - Requirements for Testing.

“(1)The Department may require any person to conduct or have conducted testing to determine compliance with this subtitle. The Department, at its option, may witness or conduct these tests. This testing will be done at a reasonable time, and all information gathered during a testing operation will be provided to both parties.”

A. The Permittee shall notify the Department of the initial start-up date when diesel fuel is used in the temporary boiler within 15 days after such date.

Within 180 days after the initial start-up date when diesel fuel is used in the temporary boiler, the Permittee shall conduct a performance test for the boiler using Method 9 of Appendix A-4 of 40 CFR 60 and the procedures in 40 CFR §60.11 to demonstrate compliance with the applicable opacity limit in 40 CFR §60.43c(c). If during the initial 60 minutes of the observation all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20

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

percent, the observation period may be reduced from 3 hours to 60 minutes.

B. The temporary boiler shall not burn any distillate fuel oil with sulfur content greater than 0.3% by weight

C. The Permittee shall conduct an initial performance test for NO_x emissions on the temporary boiler within 180 days after the initial start up date.

Record Keeping: COMAR 26.11.03.06C, COMAR 26.11.03.06C(5)(g), COMAR 26.11.09.07C] Describe: _____

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

A. The Permittee shall:

- (1) Maintain an operation manual and prevention maintenance plan on site;
- (2) Maintain a record of the maintenance performed that relates to combustion performance;
- (3) Maintain a log of visible emissions observations performed and make it available to the Department's representative upon request; and
- (4) Maintain a record of the hours that No.2 fuel oil is burned.

B. The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request.

C. The Permittee shall maintain records of the stack test and results of the measured NO_x content of the flue gas and make these records available to the Department upon request. The Permittee shall keep records of the heat input of the flue gas and make these records available to the Department upon request.

COMAR 26.11.02.19D. - Emission Certification.

- (1) Beginning January 1, 1994, the responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.
- (2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required.
- (3) An emission certification submitted pursuant to this section and which contains all information required by COMAR 26.11.01.05-1, for NO_x and VOC, satisfies the requirements of COMAR 26.11.01.05-1.

Reporting: COMAR 26.11.09.07C, COMAR 26.11.01.04A Describe: _____

COMAR 26.11.02.19D. - Emission Certification.

- (1) Beginning January 1, 1994, the responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.
- (2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required.
- (3) An emission certification submitted pursuant to this section and which contains all information required by COMAR 26.11.01.05-1, for NO_x and VOC, satisfies the requirements of COMAR 26.11.01.05-1.

A. The Permittee shall report incidents of visible emissions in accordance with Permit Condition, "Report of Excess Emissions and Deviations"

B. The Permittee shall report fuel supplier certification to the Department upon request.

J

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 5 - 1198 (Boiler # 1 - Bldg 11) | 2. <u>Emissions Point No. :</u> Stack 1, Bldg 11, Boiler Stack Tower |
| 3. <u>Type and Description of Control Equipment :</u> Low NOx Burners; This control is designed to produce a 80 % reduction of NOx emissions. | |
| 4. <u>Pollutants Controlled :</u> NOx | Control Efficiency : 80 % Reduction of NOx emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 5 - 1199 (Boiler # 2 - Bldg 11) | 2. <u>Emissions Point No. :</u> Stack 2, Bldg 11, Boiler Stack Tower |
| 3. <u>Type and Description of Control Equipment :</u> Low NOx Burners; This control is designed to produce a 80 % reduction of NOx emissions. | |
| 4. <u>Pollutants Controlled :</u> NOx | <u>Control Efficiency :</u> 80 % Reduction of NOx emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 5 - 1200 (Boiler # 3 - Bldg 11) | 2. <u>Emissions Point No. :</u> Stack 3, Bldg 11, Boiler Stack Tower |
| 3. <u>Type and Description of Control Equipment :</u> Low NOx Burners; This control is designed to produce a 80 % reduction of NOx emissions. | |
| 4. <u>Pollutants Controlled :</u> NOx | Control Efficiency : 80 % Reduction of NOx emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 5 - 1201 (Boiler # 4 - Bldg 11) | 2. <u>Emissions Point No. :</u> Stack 4, Bldg 11, Boiler Stack Tower |
| 3. <u>Type and Description of Control Equipment :</u> Low NOx Burners; This control is designed to produce a 80 % reduction of NOx emissions. | |
| 4. <u>Pollutants Controlled :</u> NOx | <u>Control Efficiency :</u> 80 % Reduction of NOx emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 5 - 1024 (Boiler # 5 - Bldg 11) | 2. <u>Emissions Point No. :</u> Stack 5, Bldg 11, Boiler Stack Tower |
| 3. <u>Type and Description of Control Equipment :</u> Low NOx Burners and Flue Gas Recirculation; This control is designed to produce a 60 % reduction of NOx emissions. | |
| 4. <u>Pollutants Controlled :</u> NOx | Control Efficiency : 60 % Reduction of NOx emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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|---|---|
| 1. <u>Associated Emissions Units No. :</u> 5 - 1156 (Cogeneration System - Bldg 11) | 2. <u>Emissions Point No. :</u> Cogeneration System Stack, Bldg 11 |
| 3. <u>Type and Description of Control Equipment :</u> A. Dry Low NOx Combustor Turbine, and Low NOx Heat Recovery Steam Generator. This control is designed to produce a 66 % reduction of NOx emissions. B. CO Catalyst | |
| 4. <u>Pollutants Controlled :</u> A. NOx B. CO | <u>Control Efficiency :</u> A. 66 % Reduction of NOx emissions. B. 90 % Reduction on CO emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 4. CONTROL EQUIPMENT

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| 1. <u>Associated Emissions Units No. :</u> 9 - 0633 (Gasoline Storage Tanks, Two 10,000 Gallon Tanks – Bldg 12) | 2. <u>Emissions Point No. :</u> Bldg 12, Gasoline Storage Tanks |
| 3. <u>Type and Description of Control Equipment :</u> Stage 1 and Stage 2 Vapor Control systems connected to Two 10,000 gallon underground gasoline storage tanks. These tanks are located adjacent to the Bldg 12 Government Vehicle Refueling Station. This control is designed to produce a 93 % reduction of gasoline vapor emissions. | |
| 4. <u>Pollutants Controlled :</u> Hazardous Air Pollutants to include; Benzene Toluene Ethylbenzene O – xylene N – Hexane 1, 1, 2 – Trichlorethane Chlorobenzene Napthalene | <u>Control Efficiency :</u> 93 % Reduction of Gasoline Vapor emissions. |
| 5. <u>Capture Efficiency :</u> Not Applicable | |

K

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

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

Total NOx emissions from the Cogeneration Utilities System (5-1156) shall not exceed 55.6 tons per year. Total NOx emissions from Boilers 1, 2, 3, 4, and shall not exceed 81.7 tons per year.

| Pollutant | NOx | SO2 | CO | VOC | PM |
|----------------------------------|------------|-----------|-----------|-----------|-----------|
| CAS Number | | | | | |
| Emissions Unit # 9-0783 (Oil) | 1.49188 | 0.7852 | 113.854 | 0.000214 | 0.068705 |
| Emissions Unit # 9-0784 (Oil) | 1.35356 | 0.7124 | 103.298 | 0.062335 | 0.062335 |
| Emissions Unit # 9-0786 (Oil) | 1.93648 | 1.0192 | 147.784 | 0.08918 | 0.08918 |
| Emissions Unit # 9-0787 (Oil) | 1.7784 | 0.936 | 135.72 | 0.0819 | 0.0819 |
| Emissions Unit # 5-1024 (Oil) | 10.2856635 | 2.8394226 | 0.8402373 | 0.1738422 | 0.4056318 |
| Emissions Unit # 5-1024 (Gas) | 86.8341789 | 0.1738422 | 9.0397944 | 1.1299743 | 1.8253431 |
| Emissions Unit # 5-1156 (Gas) | 67.014 | 0.39858 | 1.7082 | 0.8322 | 6.9204 |
| Emissions Unit # 5-1198 (Oil) | 8.073216 | 2.223288 | 0.260172 | 0.126144 | 0.165564 |
| Emissions Unit # 5-1198 (Gas) | 22.138272 | 0.070956 | 20.719152 | 2.625372 | 1.490076 |
| Emissions Unit # 5-1199 (Oil) | 8.349156 | 2.270592 | 0.756864 | 0.11826 | 0.165564 |
| Emissions Unit # 5-1199 (Gas) | 24.550776 | 0.425736 | 6.315084 | 3.760668 | 1.277208 |
| Emissions Unit # 5-1200 (Oil) | 7.96284 | 2.349432 | 0.189216 | 0.204984 | 0.212868 |
| Emissions Unit # 5-1200 (Gas) | 29.233872 | 0.567648 | 3.051108 | 1.206252 | 3.334932 |
| Emissions Unit # 5-1201 (Oil) | 7.92342 | 2.254824 | 0.189216 | 0.141912 | 0.260172 |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

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

| Pollutant | NOx | SO2 | CO | VOC | PM |
|-------------------------------|-----------|----------|-----------|----------|----------|
| CAS Number | | | | | |
| Emissions Unit # 5-1201 (Gas) | 28.950048 | 0.567648 | 18.022824 | 1.41912 | 2.057724 |
| Emissions Unit # 9-0474 (Oil) | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 |
| Emissions Unit # 9-0475 (Oil) | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 |
| Emissions Unit # 9-0476 (Oil) | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 |
| Emissions Unit # 9-0531 (Oil) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Emissions Unit # 9-0532 (Oil) | 3.0628 | 1.612 | 233.74 | 0.14105 | 0.14105 |
| Emissions Unit # 9-0533 (Oil) | 3.0628 | 1.612 | 233.74 | 0.14105 | 0.14105 |
| Emissions Unit # 9-0561 (Oil) | 2.94424 | 1.5496 | 224.692 | 0.13559 | 0.13559 |
| Emissions Unit # 9-0562 (Oil) | 2.24276 | 1.1804 | 171.158 | 0.103285 | 0.103285 |
| Emissions Unit # 9-0568 (Oil) | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 |
| Emissions Unit # 9-0582 (Oil) | 4.691024 | 2.46896 | 357.9992 | 0.216034 | 0.216034 |
| Emissions Unit # 9-0583 (Oil) | 5.133648 | 2.70192 | 391.7784 | 0.236418 | 0.236418 |
| Emissions Unit # 9-0584 (Oil) | 3.529136 | 1.85744 | 269.3288 | 0.162526 | 0.162526 |
| Emissions Unit # 9-0599 (Oil) | 2.821728 | 1.48512 | 215.3424 | 0.129948 | 0.129948 |
| Emissions Unit # 9-0728 (Oil) | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 |
| Emissions Unit # 9-0729 (Oil) | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 |
| Emissions Unit # 9-0730 (Oil) | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

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

| Pollutant | NOx | SO2 | CO | VOC | PM |
|----------------------------------|----------|---------|----------|----------|----------|
| CAS Number | | | | | |
| Emissions Unit # 9-0764 (Oil) | 5.434 | 2.86 | 414.7 | 0.25025 | 0.25025 |
| Emissions Unit # 9-0872 (Oil) | 3.212976 | 1.69104 | 245.2008 | 0.147966 | 0.465036 |
| Emissions Unit # 9-0881 (Oil) | 4.3472 | 2.288 | 331.76 | 0.2002 | 0.6292 |
| Emissions Unit # 9-0914 (Oil) | 2.92448 | 1.5392 | 223.184 | 0.13468 | 0.13468 |
| Emissions Unit # 9-0920 (Oil) | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 |
| Emissions Unit # 9-0921 (Oil) | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 |
| Emissions Unit # 9-0922 (Oil) | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 |
| Emissions Unit # 9-0923 (Oil) | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 |
| Emissions Unit # 9-0968 (Oil) | 5.773872 | 3.03888 | 440.6376 | 0.265902 | 0.265902 |
| Emissions Unit # 9-0969 (Oil) | 5.773872 | 3.03888 | 440.6376 | 0.265902 | 0.265902 |
| Emissions Unit # 9-0992 (Oil) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Emissions Unit # 9-1027 (Oil) | 1.25476 | 0.6604 | 95.758 | 0.057785 | 0.057785 |
| Emissions Unit # 9-0698 (Oil) | 5.8035 | 3.0545 | 442.899 | 0.2673 | 0.2673 |
| Emissions Unit # 9-1203 | 1.2034 | 0.6333 | 91.8372 | 0.0554 | 0.0554 |
| Emissions Unit # 9-1175 | 5.8035 | 3.0545 | 442.899 | 0.2673 | 0.2673 |
| Emissions Unit # 9-1263 (Oil) | 5.8035 | 3.05448 | 442.899 | 0.2673 | 0.2673 |
| Emissions Unit # 9-1153 (Oil) | 2.94424 | 1.5496 | 224.692 | 0.13559 | 0.13559 |

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

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

| Pollutant | HAPs | | | | |
|---------------------------|------|--|--|--|--|
| CAS Number | | | | | |
| Emission Unit # 9-0633 | 0.0 | | | | |
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Emissions Factors and Potential Emissions for Boilers 1 through 5

| | Boiler 1 | | Boiler 2 | | Boiler 3 | | Boiler 4 | | Boiler 5 | |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Unit Type | Fuel Oil #2 | Natural Gas | Fuel Oil #2 | Natural Gas | Fuel Oil #2 | Natural Gas | Fuel Oil #2 | Natural Gas | Fuel Oil #2 | Natural Gas |
| NOx | 0.1024 | 0.0312 | 0.1059 | 0.0346 | 0.101 | 0.0412 | 0.1005 | 0.0408 | 0.1065 | 0.0999 |
| SO2 | 0.0282 | 0.0001 | 0.0288 | 0.0006 | 0.0298 | 0.0008 | 0.0286 | 0.0008 | 0.0294 | 0.0002 |
| CO | 0.0033 | 0.0292 | 0.0096 | 0.0089 | 0.0024 | 0.0043 | 0.0024 | 0.0254 | 0.0087 | 0.0104 |
| VOC | 0.0016 | 0.0037 | 0.0015 | 0.0053 | 0.0026 | 0.0017 | 0.0018 | 0.002 | 0.0018 | 0.0013 |
| TSP | 0.0084 | 0.0083 | 0.01 | 0.0041 | 0.0092 | 0.0047 | 0.009 | 0.0109 | 0.0082 | 0.003 |
| PM10 | 0.0021 | 0.0021 | 0.0021 | 0.0018 | 0.0027 | 0.0047 | 0.0033 | 0.0029 | 0.0042 | 0.0021 |

Units lb/MMBTU

| Unit | Boiler 1 | Boiler 2 | Boiler 3 | Boiler 4 | Boiler 5 |
|----------|----------|----------|----------|----------|----------|
| MMBTU/hr | 180 | 180 | 180 | 180 | 220.5 |

Potential Emissions - Fuel Oil #2

*Fuel Oil #2 is used for 10% of operational time

| Emissions U | Hours of Op | NOx | SO2 | CO | VOC | PM10 | TSP | |
|-------------|-------------|------------|------------|-----------|-----------|-----------|-----------|---------------|
| Boiler 1 | 876 | 8.073216 | 2.223288 | 0.260172 | 0.126144 | 0.165564 | 0.662256 | |
| Boiler 2 | 876 | 8.349156 | 2.270592 | 0.756864 | 0.11826 | 0.165564 | 0.7884 | |
| Boiler 3 | 876 | 7.96284 | 2.349432 | 0.189216 | 0.204984 | 0.212868 | 0.725328 | |
| Boiler 4 | 876 | 7.92342 | 2.254824 | 0.189216 | 0.141912 | 0.260172 | 0.70956 | |
| Boiler 5 | 876 | 10.2856635 | 2.8394226 | 0.8402373 | 0.1738422 | 0.4056318 | 0.7919478 | |
| | | 42.5942955 | 11.9375586 | 2.2357053 | 0.7651422 | 1.2097998 | 3.6774918 | Tons/per Year |

Potential Emissions - Natural Gas

*Natural Gas is used for 90% of operational time

| Emissions U | Hours of Op | NOx | SO2 | CO | VOC | PM10 | TSP | |
|-------------|-------------|-------------|-----------|-----------|------------|-----------|-----------|---------------|
| Boiler 1 | 7884 | 22.138272 | 0.070956 | 20.719152 | 2.625372 | 1.490076 | 5.889348 | |
| Boiler 2 | 7884 | 24.550776 | 0.425736 | 6.315084 | 3.760668 | 1.277208 | 2.909196 | |
| Boiler 3 | 7884 | 29.233872 | 0.567648 | 3.051108 | 1.206252 | 3.334932 | 3.334932 | |
| Boiler 4 | 7884 | 28.950048 | 0.567648 | 18.022824 | 1.41912 | 2.057724 | 7.734204 | |
| Boiler 5 | 7884 | 86.8341789 | 0.1738422 | 9.0397944 | 1.1299743 | 1.8253431 | 2.607633 | |
| | | 191.7071469 | 1.8058302 | 57.147962 | 10.1413863 | 9.9852831 | 22.475313 | Tons/per Year |

Boiler Rates are calculated based on 90% full load.

Emissions Factors and Potential Emissions for Cogeneration System

| Emissions Factors | |
|-------------------|-------|
| Unit Type | Gas |
| NOx | 15.3 |
| SO2 | 0.091 |
| CO | 0.39 |
| VOC | 0.19 |
| PM10 | 1.58 |
| Units lb/hr | |

| Cogeneration System - Possible Emissions with Natural Gas | | | | | | |
|---|--------|---------|--------|--------|--------|---------------|
| Hours | NOx | SO2 | CO | VOC | PM10 | Units |
| 8760 | 67.014 | 0.39858 | 1.7082 | 0.8322 | 6.9204 | Tons per Year |

Emissions factors and potential emissions for emergency generators

| Emissions Factors - Diesel Fuel | | | | | | |
|---------------------------------|--------|-------|--------|--------|--------|----------|
| Unit Type | NOx | SO2 | CO | VOC | PM10 | Units |
| >600 HP | 0.0152 | 0.008 | 1.16 | 0.0007 | 0.0007 | lb/hp-hr |
| <600 HP | 0.031 | 0.002 | 0.0066 | 0.0024 | 0.0022 | lb/hp-hr |

| Emissions Unit | Horsepower | NOx | SO2 | CO | VOC | PM10 | Units |
|----------------|------------|----------|---------|----------|----------|----------|---------------|
| 9-0783 | 755 | 1.49188 | 0.7852 | 113.854 | 0.068705 | 0.068705 | tons per year |
| 9-0784 | 685 | 1.35356 | 0.7124 | 103.298 | 0.062335 | 0.062335 | tons per year |
| 9-0785 | 685 | 1.35356 | 0.7124 | 103.298 | 0.062335 | 0.062335 | tons per year |
| 9-0786 | 980 | 1.93648 | 1.0192 | 147.784 | 0.08918 | 0.08918 | tons per year |
| 9-0787 | 900 | 1.7784 | 0.936 | 135.72 | 0.0819 | 0.0819 | tons per year |
| 9-0474 | 2168 | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 | tons per year |
| 9-0475 | 2168 | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 | tons per year |
| 9-0476 | 2168 | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 | tons per year |
| 9-0531 | 1550 | 3.0628 | 1.612 | 233.74 | 0.14105 | 0.14105 | tons per year |
| 9-0532 | 1550 | 3.0628 | 1.612 | 233.74 | 0.14105 | 0.14105 | tons per year |
| 9-0533 | 1550 | 3.0628 | 1.612 | 233.74 | 0.14105 | 0.14105 | tons per year |
| 9-0561 | 1490 | 2.94424 | 1.5496 | 224.692 | 0.13559 | 0.13559 | tons per year |
| 9-0562 | 1135 | 2.24276 | 1.1804 | 171.158 | 0.103285 | 0.103285 | tons per year |
| 9-0568 | 2168 | 4.283968 | 2.25472 | 326.9344 | 0.197288 | 0.197288 | tons per year |
| 9-0582 | 2374 | 4.691024 | 2.46896 | 357.9992 | 0.216034 | 0.216034 | tons per year |
| 9-0583 | 2598 | 5.133648 | 2.70192 | 391.7784 | 0.236418 | 0.236418 | tons per year |
| 9-0584 | 1786 | 3.529136 | 1.85744 | 269.3288 | 0.162526 | 0.162526 | tons per year |
| 9-0599 | 1428 | 2.821728 | 1.48512 | 215.3424 | 0.129948 | 0.129948 | tons per year |
| 9-0728 | 2600 | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 | tons per year |
| 9-0729 | 2600 | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 | tons per year |
| 9-0730 | 2600 | 5.1376 | 2.704 | 392.08 | 0.2366 | 0.2366 | tons per year |
| 9-0764 | 2750 | 5.434 | 2.86 | 414.7 | 0.25025 | 0.25025 | tons per year |
| 9-0968 | 2922 | 5.773872 | 3.03888 | 440.6376 | 0.265902 | 0.265902 | tons per year |
| 9-0969 | 2922 | 5.773872 | 3.03888 | 440.6376 | 0.265902 | 0.265902 | tons per year |
| 9-0872 | 1626 | 3.212976 | 1.69104 | 245.2008 | 0.147966 | 0.465036 | tons per year |
| 9-0881 | 2200 | 4.3472 | 2.288 | 331.76 | 0.2002 | 0.6292 | tons per year |
| 9-0914 | 1480 | 2.92448 | 1.5392 | 223.184 | 0.13468 | 0.13468 | tons per year |
| 9-0920 | 2682 | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 | tons per year |
| 9-0921 | 2682 | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 | tons per year |
| 9-0922 | 2682 | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 | tons per year |
| 9-0923 | 2682 | 5.299632 | 2.78928 | 404.4456 | 0.244062 | 0.244062 | tons per year |
| 9-0992 | 2680 | 5.29568 | 2.7872 | 404.144 | 0.24388 | 0.24388 | tons per year |
| 9-1027 | 635 | 1.25476 | 0.6604 | 95.758 | 0.057785 | 0.057785 | tons per year |
| 9-0698 | 2937 | 5.803512 | 3.05448 | 442.8996 | 0.267267 | 0.267267 | tons per year |
| 9-1203 | 609 | 1.203384 | 0.63336 | 91.8372 | 0.055419 | 0.055419 | tons per year |
| 9-1175 | 2937 | 5.803512 | 3.05448 | 442.8996 | 0.267267 | 0.267267 | tons per year |
| 9-1263 | 2937 | 5.803512 | 3.05448 | 442.8996 | 0.267267 | 0.267267 | tons per year |
| | | | | | | | |

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR FEDERAL OPERATING PERMIT, 40 CFR PART 71

FORM EMISS - EMISSIONS CALCULATIONS

INSTRUCTIONS: Use this form to calculate potential to emit (PTE) for applicability purposes and actual emissions for fee purposes for each emissions unit, control device, or alternative operating scenario identified in section 1 of form GIS. If form FEE does not need to be submitted with the application, do not calculate actual emissions.

A. Emissions Unit ID MDE Reg # 9-0633

B. Identification and Quantification of Emissions

Instructions: First, list each air pollutant that is either regulated at the unit or present in major amounts. Second, list any other regulated pollutant (for fee calculation) emitted at the unit that have not already been listed. Each HAP added to the list in this step may be simply listed as "HAP". Next, calculate PTE for applicability purposes and actual emissions for fee purposes for each listed air pollutant. Do not calculate PTE for air pollutants listed solely for fee purposes. Include all fugitives, including those that do not count towards applicability, when calculating actual emissions. At a minimum, round to the nearest tenth of a ton for yearly values or tenth of a pound for hourly values. Attach examples of calculations that illustrates the methodology used.

| Air Pollutants (including regulated air pollutants and pollutants for which the source is major) | Emission Rates | | | CAS No. |
|--|--|-------------------|------------------|---------|
| | Actual Annual Emissions (tons/yr) | Potential to Emit | | |
| | | Hourly (lb/hr) | Annual (tons/yr) | |
| <u>Benzene</u> | <u>< .1 TPY</u> <u>0.77 lbs / yr</u> | Not Applicable | Not Applicable | 71432 |
| <u>Toluene</u> | <u>< .1 TPY</u> <u>0.66 lbs / yr</u> | Not Applicable | Not Applicable | 108883 |
| <u>Ethylbenzene</u> | <u>< .1 TPY</u> <u>0.04 lbs / yr</u> | Not Applicable | Not Applicable | 100414 |
| <u>o - Xylene</u> | <u>< .1 TPY</u> <u>0.05 lbs / yr</u> | Not Applicable | Not Applicable | 95476 |
| <u>n - Hexane</u> | <u>< .1 TPY</u> <u>1.86 lbs / yr</u> | Not Applicable | Not Applicable | 110543 |
| <u>1, 1, 2 - Trichloroethane</u> | <u>< .1 TPY</u> <u>0.02 lbs / yr</u> | Not Applicable | Not Applicable | 79005 |
| <u>Chlorobenzene</u> | <u>< .1 TPY</u> <u>0.02 lbs / yr</u> | Not Applicable | Not Applicable | 108907 |
| <u>Napthalene</u> | <u>< .1 TPY</u> <u>0.01 lbs / yr</u> | Not Applicable | Not Applicable | 91203 |
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GASOLINE UNDERGROUND STORAGE TANK VAPOR LOSSES

Emission Factor - Gasoline
EIIIP January 2001 Report
Table 11.3 - 1

Filling UST Losses

Filling UST (Stage I Controls)

Splash Filling Vapor Loss 11.5 lbs / 1000 Gallons Throughput

Vapor Balance Control (Stage I Control) Efficiency (%) 93%

Vapor Loss through Stage I Control (100 % - 93 %) (%) 7%

Splash Filling Vapor Loss

11.5 lbs / 1000 Gallons Throughput x .07 = .81 lbs / 1000 Gallons Throughput

Annual Fuel Consumption = 12132 Gallons / Year Throughput

12132 Gallons / Year Throughput x .81 lbs / 1000 Gallons Throughput = **9.8 lbs / Year**

Breathing UST Losses

Table 11.3 - 1

1.0 lb / 1000 Gallons Throughput

Annual Fuel Consumption = 12,132 Gallons / Year Throughput

12,132 Gallons / Year Throughput x 1.0 lbs / 1000 Gallons Throughput = 12.13 **lbs / Year**

Total UST Emission Losses

9.8 lbs / Year + 12.13 lbs / Year = **21.9 lbs / Year**

GASOLINE UNDERGROUND STORAGE TANK VAPOR LOSSES

UST Emission Speciate - Gasoline
US EPA - Speciate 3.0 Report

| Constituent | Weight % | (Weight % x Vapor Loss) | Vapor Loss |
|-------------------------------|----------|-------------------------|------------|
| Benzene | 0.77 | | 0.17 |
| Toluene | 0.66 | | 0.14 |
| Ethylbenzene | 0.04 | | 0.01 |
| O - xylene | 0.05 | | 0.01 |
| N - Hexane | 1.86 | | 0.41 |
| 1, 1, 2 - Trichloroethane | 0.02 | | 0.00 |
| Chlorobenzene | 0.02 | | 0.00 |
| Napthalene | 0.01 | | 0.00 |
| Total Hazardous Air Emissions | | | 0.75 |

ETHANOL (E (85)) UNDERGROUND STORAGE TANK VAPOR LOSSES

Emission Factor - E 85 Fuel (Ethanol 85% - Gasoline 15% Blend)

EIIP January 2001 Report

Table 11.3 - 1

Filling UST Losses

Filling UST (Stage I Controls)

Splash Filling Vapor Loss 11.5 lbs / 1000 Gallons Throughput

Vapor Balance Control (Stage I Control) Efficiency (%) 93%

Vapor Loss through Stage I Control (100 % - 93 %) (%) 7%

Splash Filling Vapor Loss

11.5 lbs / 1000 Gallons Throughput x .07 = .81 lbs / 1000 Gallons Throughput

Annual E 85 Fuel Consumption =19,900 Gallons / Year Throughput

Annual Gasoline Fuel Consumption = 19900 Gallons / Year Throughput x .15 (15 % Gasoline) = 2985 Gallons / Year

Annual Gasoline Fuel Consumption = 2985 Gallons / Year Throughput

2985 Gallons / Year Throughput x .81 lbs / 1000 Gallons Throughput = **2.42 lbs / Year**

Breathing UST Losses

Table 11.3 - 1

1.0 lb / 1000 Gallons Throughput

Annual Gasoline Fuel Consumption =2,985 Gallons / Year Throughput

2,985 Gallons / Year Throughput x 1.0 lbs / 1000 Gallons Throughput = **2.98 lbs / Year**

Total UST Emission Losses

2.42 lbs / Year + 2.98 lbs / Year = **5.4 lbs / Year**

ETHANOL (E (85)) UNDERGROUND STORAGE TANK VAPOR LOSSES

UST Emission Speciate - Gasoline

US EPA - Speciate 3.0 Report

| Constituent | Weight % | (Weight % x Vapor Loss / Year =) | Vapor Loss |
|-------------------------------|----------|-----------------------------------|------------|
| Benzene | 0.77 | | 0.04 |
| Toluene | 0.66 | | 0.04 |
| Ethylbenzene | 0.04 | | 0.00 |
| O - xylene | 0.05 | | 0.00 |
| N - Hexane | 1.86 | | 0.10 |
| 1, 1, 2 - Trichloroethane | 0.02 | | 0.00 |
| Chlorobenzene | 0.02 | | 0.00 |
| Napthalene | 0.01 | | 0.00 |
| Total Hazardous Air Emissions | | | 0.19 |

L

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

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

| |
|---|
| 1. Applicable Requirement : NOT APPLICABLE |
| 2. Brief Description : |
| 3. Reasons for Proposed Exemption or Justification of Non-Applicability : |

M

MARYLAND DEPARTMENT OF THE ENVIRONMENT

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

| | |
|--|--|
| 1. Emissions Unit # : NONE | Anticipated Compliance Date : NOT APPLICABLE |
| | |
| Applicable Federally Enforceable Requirement Being Violated: | |

| |
|---|
| 2. Description of Plan to Achieve Compliance : NOT APPLICABLE |
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Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

N

MARYLAND DEPARTMENT OF THE ENVIRONMENT

STATE – ONLY ENFORCEABLE REQUIREMENTS

Facility Information :

| |
|---|
| Name of Facility : National Institutes of Health (Bethesda Campus) County : Montgomery |
| Premises Number : 24 - 031 – 00324 |
| Street Address : 9000 Rockville Pike, Bethesda, Maryland 20892 |
| 24 – Hour Emergency Telephone Number for Air Pollution Matters : NIH Fire Department (301) 496 - 2372 |
| Type of Equipment (List Significant Units): <u>ALL SOURCES.</u> _____ _____ _____ _____ _____ _____ _____ |

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MARYLAND DEPARTMENT OF THE ENVIRONMENT

**CITATION TO AND DESCRIPTION OF APPLICABLE STATE –
ONLY ENFORCEABLE REQUIREMENTS**

Registration No. : ALL SOURCES

Emissions Unit No. : ALL SOURCES General Reference : COMAR 26.11.06.08

Briefly Describe the requirement and the emissions limit (if applicable)

COMAR 26.11.06.08 generally prohibits the discharge of emissions beyond the property line
in such a manner that a nuisance or air pollution is created.

Methods used to demonstrate compliance :

Testing : NONE.

Monitoring : NONE

Record Keeping : NONE

Reporting : NONE

MARYLAND DEPARTMENT OF THE ENVIRONMENT

CITATION TO AND DESCRIPTION OF APPLICABLE STATE – ONLY ENFORCEABLE REQUIREMENTS

Registration No. : ALL SOURCES

Emissions Unit No. : ALL SOURCES General Reference : COMAR 26.11.06.09

Briefly Describe the requirement and the emissions limit (if applicable)

COMAR 26.11.06.09 generally prohibits the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created.

Methods used to demonstrate compliance :

Testing : NONE

Monitoring : NONE

Record Keeping : NONE

Reporting : NONE

P

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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

Insignificant Activities

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

- (1) No. 14 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;
- (2) No. Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;
- (3) No. 40 Stationary internal combustion engines with less than 1,000 brake horsepower (746 kilowatts) operating less than 2000 hours, and any stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts);
- (4) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (5) X Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;
- (6) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;
- (7) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
- (8) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
- (9) Confection cookers where the products are edible and intended for human consumption;
- (10) Die casting machines;
- (11) X Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;

MARYLAND DEPARTMENT OF THE ENVIRONMENT

- (12) X Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (13) ___ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (14) ___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;
- (15) ___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;
- (16) Containers, reservoirs, or tanks used exclusively for:
- (a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
 - (b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;
 - (c) X Storage of butane, propane, or liquefied petroleum, or natural gas;
 - (d) No. X Storage of lubricating oils;
 - (e) No. X Unheated storage of VOC with an initial boiling point of 300 °F (
 - (f) No. X Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,
 - (g) No. X Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
 - (h) No. X The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (17) ___ Gaseous fuel- fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

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- (18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride, or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:
- (a) ☐ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;
 - (b) ☐ Magnesium or any alloy containing over 50 percent magnesium;
 - (c) ☐ Lead or any alloy containing over 50 percent lead;
 - (d) ☐ Tin or any alloy containing over 50 percent tin;
 - (e) ☐ Zinc or any alloy containing over 50 percent zinc;
 - (f) ☐ Copper;
 - (g) ☐ Precious metals;
- (19) ☐ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;
- (20) ☒ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;
- (21) ☒ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (22) ☐ Potable water treatment equipment, not including air stripping equipment;
- (23) ☒ Non-contact water (i.e., water that has not been in direct contact with process fluids) cooling towers except as regulated under Section 112 of the Clean Air Act;
- (24) ☐ Firing and testing of military weapons and explosives;
- (25) ☐ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;
- (26) ☒ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

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- (27) ___ Grain, metal, or mineral extrusion presses;
- (28) ___ Breweries with an annual beer production less than 60,000 barrels;
- (29) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;
- (30) X Laboratory fume hoods and vents;
- (31) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

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

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

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

No. ___ _____

No. ___ _____

No. ___ _____

Q

VI .Application Completeness Checklist

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

Cover Page

- (X) Name and address of owner or operator, including telephone number.
- (X) Name and address of facility, including the plant manager's name and telephone number.
- (X) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

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

Section 2 FACILITY DESCRIPTION SUMMARY

- (X) A brief description of each of the source's process(es), including all applicable SIC codes and end products.
- (X) Flow diagrams indicating all emissions units, emission points, and control devices.
- (X) A plot plan of the entire facility.
- (X) Emission Certification Report.
- (X) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS – This section must be completed for each emissions unit.

Part A

- (X) Emissions unit number.() Detailed description of unit, including all emission points.
- (X) Federally enforceable limit(s) on the operating schedule.
- (X) Fuel consumption information for any emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

- A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.
- (X) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (X) The frequency of submittal of the compliance demonstration during the permit term.

Part C

- (X) Emissions unit number.
- (X) Permit to construct number.
- (X) Emissions point number(s).
- (X) Date(s) the permit to construct was issued.
- (X) Condition number(s) as indicated on the permit to construct.
- (X) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

- (X) Description of all alternate operating scenarios that apply to an emissions unit.
- (X) Number assigned to each scenario.
- (X) Emissions unit number.
- (X) Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E

- (X) A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.
- (X) As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.
- (X) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.
- (X) The frequency of submittal of the compliance demonstration during the permit term.

Section 4 CONTROL EQUIPMENT

- (X) The type of each piece of air pollution control equipment () The capture and control efficiencies of the control equipment.

Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

- (X) Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.
- (X) Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.
- (X) . Basis for all emission calculations.

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

- (X) An explanation of the proposed exemption.

Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

- (X) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.
- (X) Detailed description of methods to be used to achieve compliance.
- (X) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

- (X) Checklist of Insignificant Activities() CAM Plan (If Applicable)

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SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly Describe the major activities, including the applicable SIC Code(s) and end products:

NIH Campus – SIC Code 8922, Research Laboratory

Central Utility Plant – SIC Code 496, Steam and Air Conditioning Supply NIH

Bethesda Campus

The National Institutes of Health (NIH) is a Federal Government biomedical research institution. It consists of a large research hospital, many research laboratory buildings, animal holding facilities, administrative facilities, support facilities, and a central utility plant. The NIH campus located on 322 acres consists of over 70 buildings. The laboratories on campus perform biomedical and related scientific research. The administrative areas support planning, administration, and coordination of NIH's programs; including research, clinical trials, communicable disease control and a variety of other activity.

Central Utility Plant

The central utility plant includes five large boilers, two medium boilers, twelve chillers, and one 23 MW cogeneration system that supply the heating, cooling, and a significant portion of the electric capacity of the NIH campus in Bethesda.

Boilers Number 1 through 4 have been converted to primarily fire natural gas with Number Two fuel oil used as a back-up fuel and the burners were replaced with Low NOx burners. This conversion was completed as part of the overall installation of a 23 MW cogeneration system. Boiler Number 5 was constructed in 1995 and operated primarily on Natural gas with Number Two fuel oil used as a back-up fuel. The two medium natural gas fired Cleaver Brooks boilers were permitted in September, 2018.

The 23 MW cogeneration system was completed in 2001. The cogeneration unit generates approximately 23 MW of electricity and produce 103 MMBTU/Hr of steam. The cogeneration system primarily operates on natural gas with Number Two fuel oil as a back-up fuel.

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Section 3D: ALTERNATIVE OPERATING SCENARIO

Emissions Unit No. : 5-1156 Cogeneration System

Briefly Describe the Emission Standard/Limit or Operational Limitation:

Scenario #1

In this scenario, we only operate the low pressure boilers if either the Cogeneration Plant or one of the Main boilers is off line for major repairs.

Section 3D: . ALTERNATIVE OPERATING SCENARIO

Emissions Unit No. : One Power Plant Boiler (5-1024, 5-1198, 5-1199, 5-1200, Or 5-1201 .

Briefly Describe the Emission Standard/Limit or Operational Limitation:

Scenario #2

In this scenario, we only operate the low pressure boilers if either the Cogeneration Plant or one of the main boilers is off line for major repairs.