



Maryland
Department of
the Environment

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

Horacio Tablada, Secretary
Suzanne E. Dorsey, Deputy Secretary

Mr. Carlo Collela, Vice President
University of Maryland
Thomas V. Miller, Jr Administration Building, Room #2119
7901 Regents Drive
College Park, MD 20742-5035

DEC 13 2022

Dear Mr. Collela:

Re: Renewal Part 70/ Title V Operating Permit #24-033-0010

Enclosed, please find the renewal Part 70/Title V Operating Permit and Fact Sheet for the University of MD College Park campus located in Prince George's County, MD. The Permit will expire on September 30, 2027.

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

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

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

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

Mr. Collela
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If you have any questions, please feel free to contact Ms. Marcie Gurley, Chief, Technical Support Division, at Marcie.gurley@maryland.gov, or (410) 537-3230.

Sincerely,

A handwritten signature in black ink, appearing to read "Suna Yi Sariscak", with a long horizontal flourish extending to the right.

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

SYS/jm

Enclosures

cc: EPA Region III (w/encl)

Larry Hogan
Governor

State of



Maryland

Horacio Tablada
Secretary

DEPARTMENT OF THE ENVIRONMENT

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

Construction Permit

Part 70
 Operating Permit

PERMIT NO. 24-033-0010

DATE ISSUED DEC 13 2022

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE September 30, 2027

LEGAL OWNER & ADDRESS

University of Maryland
Thomas V. Miller, Jr Administration Building
Room #2119
7901 Regents Drive
College Park, MD 20742-5035
Attn: Mr. Carlo Collela, Vice President
& Chief Administrative Officer

SITE

University of Maryland
4716 Pontiac Street, Seneca Building 812
College Park, MD 20742
Prince George's County
AI # 16453

SOURCE DESCRIPTION

One (1) Steam Plant (CSP) Cogeneration Facility.

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

Program Manager

Director, Air and Radiation Administration

**UNIVERSITY OF MARYLAND (UMD) AND
MARYLAND ECONOMIC DEVELOPMENT CENTER (MEDCO)
SENECA BUILDING, SUITE #0103
4716 PONTIAC STREET
COLLEGE PARK, MARYLAND 20742-6511
PART 70 OPERATING PERMIT NO. 24-033-0010**

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

The University of Maryland (UMD) is located along US Route 1 in Prince George's County Maryland. The UMD is primarily an academic institution where most of the equipment is used for either utilities or power generation. Utility use includes heating and cooling for campus housing, offices, instructional and laboratory use. Primary power generation comes from the central steam plant/cogeneration facility operated by UMD. The facility also operates emergency generator sets for emergency power generation as needed, charbroilers, and other various boilers, heaters, and furnaces. The SIC code for the facility is 8221.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE – ARA Registration Number	Emissions Unit Name and Description	Date of Installation
Central Heating Plant (CHP), Building #001			
EU #001-7	9-1081	One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 Mwe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner	January 2004
EU #001-8	9-1082	One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 Mwe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner	January 2004
EU #001-2	5-0256	One (1) NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only fired 157 MMBtu/hr. Union Iron boiler	1976
EU #001-4	5-0159	One (1) NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only fired 117 MMBtu/hr. Union Iron boiler	1966
EU #001-6	9-1083	One (1) diesel-fired 1,109 bhp, 780 kWe, Caterpillar emergency generator set	2004
EU-#001-9	5-1665	One (1) Wabash NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only fired boiler rated at 95 MMBtu/hr. mobile boiler	2020

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EU-#001-10	4-1980	One (1) Cleaver Brooks No. 2 fuel oil-fired 6.695 MMBtu/hr. mobile boiler.	2022
EU #360	4-1974	One (1) Cleaver Brooks No. 2 oil-fired mobile boiler, Model CB200, rated at 8.4 MMBtu/hr.	2018
Ritchie Coliseum, Building #004			
EU #004-1	5-0945	One (1) PVI 1.0 MMBtu/hr. natural gas-fired hot water heater	1997
EU #004-2	5-0946	One (1) PVI 1.0 MMBtu/hr. natural gas-fired hot water heater	1997
Plant Sciences Building #036			
EU #036-1	9-0898	One (1) natural gas-fired Caterpillar emergency generator set, Model #3516, 780 kWe; Caterpillar engine, Model #9Y0598, Serial #3RC99077, 1,106 bhp.	1996
Van Munching, Building #039			
EU #039-1	9-1184	One (1) Stamford diesel-fired emergency generator set rated at 400kWe, Model #GTA19, 596 bhp	2003
Eppley Recreation Center (CRC), Building #068			
EU #068-1	5-0947	One (1) PVI natural gas-fired water heater rated at 1.4 MMBtu/hr.	1997
EU #068-3	5-0949	One (1) 2.45 MMBtu/hr. natural gas-fired hot water heater	1997
EU #068-4	5-1457	One (1) Lars Mighty Therm natural gas-fired pool heating boiler rated at 2.0 MMBtu/hr. for indoor pools.	2009
EU #068-5	5-1458	One (1) Lars Mighty Therm natural gas-fired pool heating boiler rated at 2.0 MMBtu/hr. for indoor pools.	2009
EU #068-6	9-1176	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #572RSL4027, 745 bhp.	1996
EU #068-7	5-1680	One (1) Lars Mighty Therm natural gas-fired boiler rated at 2 MMBtu/hr. for indoor pools.	2022
Animal Sciences Building #142			
EU #142-2	9-0900	One (1) Cummins diesel-fired emergency generator set, Model #CC634A, Serial #D892174048, rated 775 kWe; Cummins engine, Model #KTA38-38G51, Serial #33115424, emergency generator set has a maximum rated capacity of 1,135 bhp	1990
Adele H. Stamp Student Union, Building #163			
EU #163-1	5-1030	One (1) natural gas-fired hot water heater rated 1.2 MMBtu/hr.	2000

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EU #163-2	5-1029	One (1) natural gas-fired hot water heater rated 1.2 MMBtu/hr.	2000
EU #163-3	8-0424	One (1) natural gas fired charbroiler	2019
Denton Dining Hall, Building #251			
EU #251-1	8-0329	One (1) Jade KC-36 charbroiler	2009
Xfinity (Comcast) Center, Building #360			
EU #360-1	9-1178	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #SR4, Serial AFE00146,745 bhp	2001
EU #360-2	9-1179	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #SR4, Serial AFE00177,745 bhp	2001
EU #360-4	8-0227	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
EU #360-5	8-0228	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
EU #360-6	8-0229	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
Maryland Stadium, Building #361-(formerly Byrd)			
EU #361-1	5-0856	One (1) natural gas fired Jarco water heater rated at 1.2 MMBtu/hr., model #AJH120, Serial #680.	1995
EU #361-2	5-0854	One (1) natural gas fired Jarco water heater rated at 1.4 MMBtu/hr., model #AJH140, Serial #677.	1995
EU #361-3	5-0855	One (1) natural gas fired Jarco water heater rated at 1.4 MMBtu/hr., model #AJH140, Serial #676.	1995
Clarice Smith Performing Arts Center, Building #386			
EU #386-1	9-1177	One (1) diesel fired Katolight emergency generator set rated at 500 kWe, Model #D500FRXY, 745 bhp	2000
Technology Advancement Program Building #387			
EU #387-1	5-0944	One (1) natural gas fired Cleaver Brooks Model M4W boiler rated at 3.0 MMBtu/hr.	1998
EU #387-2	5-0943	One (1) natural gas fired Cleaver Brooks Model M4W boiler rated at 3.0 MMBtu/hr.	1998
SCUB III, Building #392			
EU #392-1	5-0942	One (1) natural gas fired Lochinvar boiler rated at 1.44 MMBtu/hr.	1998
EU #392-2	5-0941	One (1) natural gas fired Lochinvar boiler rated at 1.44 MMBtu/hr.	1998
EU #392-3	9-1180	One (1) diesel fired Detroit emergency generator set rated at 835 kWe, Model #750DS4, 1,120 bhp.	2001

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Research Greenhouse, Building #398			
EU #398-1	5-1032	One (1) natural gas fired boiler rated at 8.4 MMBtu/hr., Hurst Series 100 three-pass firebox design with Model CR4-G-30 burner	2002
EU #398-2	5-1033	One (1) natural gas fired boiler rated at 8.4 MMBtu/hr., Hurst Series 100 three-pass firebox design with Model CR4-G-30 burner	2002
EU #398-3	9-1191	One (1) diesel fired Detroit Diesel emergency generator set rated at 450 kWe, Model #450DSE4, 670 bhp.	2003
SCUB IV, Building #405			
EU #405-1	9-1181	One (1) diesel fired Detroit Diesel emergency generator rated at 700 kWe, Model; #750D34	2001
EU #405-2	9-1182	One (1) diesel fired Detroit Diesel emergency generator rated at 700 kWe, Model; #750D84	2001
Biosciences Research Building #413			
EU #413-1	5-1226	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-2	5-1227	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-3	5-1228	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-4	9-1248	One (1) diesel fired Detroit Diesel emergency generator set rated at 835 kWe, Model #750DSEB, 1,120 bhp	2006
EU #413-5	9-1183	One (1) diesel fired Detroit Diesel emergency generator set rated at 835 kWe, Model #750D84, 1,120 bhp	2002
SCUB VI, Building #418			
EU #418-1	9-1296	One (1) diesel fired Kohler emergency generator set rated at 600 kWe, Model #600REOZMB, 918 bhp	2008
Oakland Hall, Building #419			
EU #419-1	9-1387	One (1) natural gas fired Stamford emergency generator set, Model 450GFGACC, rated at 450 kWe, Cummins engine, Model GTA28CC, rated 701 bhp	2012
Physical Sciences Complex, #415			
EU #415-1	9-1408	One (1) Cummins diesel fired emergency generator set, Model 1250DQGAA, rated at 1,250 kWe, Cummins engine, Model QSK50-G4 NR2, 2,220 bhp	2013
A. James Clark Hall, Building #429			
EU #429-1	9-1495	One (1) Caterpillar natural gas fired emergency generator set, Model G3512, rated 750 kWe.	2016

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EU-#429-2	9-1496	One (1) Caterpillar natural gas fired emergency generator set, Model G3512, rated 750 kWe.	2016
Atlantic Building, #224			
EU #224-1	9-1537	One (1) Caterpillar diesel fired emergency generator set, Model G3512, rated 1,250 kWe, Cummins engine, Model QSK50, rated at 2,220 bhp.	2019
Brendan Iribe Center for Computer Science and Innovation, Building #432			
EU #432-1	9-1516	One (1) Kohler natural gas fired emergency generator set, Model 400REZXB, rated at 400 kWe, 536 bhp.	2017
Patuxent Building, #010			
EU #010-1	9-1545	One (1) diesel fired emergency generator set rated at 685 bhp	~2008
Prince Frederick Hall Building #425			
EU #425-1	9-1420	One (1) Cummins natural gas fired emergency generator set, Model KTA19G, rated at 395 kWe, 530 bhp.	2013
School of Public Health Building, #255			
EU #255-1	9-1536	One (1) Kohler diesel fired emergency generator set, Model 350REOZB, rated at 401 kWe, 538 bhp.	2018
Mobile			
EU #810-1	9-1517	One (1) mobile diesel fired emergency generator set, rated at 500 kWe, 757 bhp.	2017
SCUB II, Building #067			
EU #067-1	5-1635	One (1) PVI natural gas fired hot water heater rated at 2.01 MMBtu/hr.	2019
EU #067-2	5-1636	One (1) PVI natural gas fired hot water heater rated at 2.01 MMBtu/hr.	2019
EU #067-3	9-1568	One (1) Caterpillar 636 bhp natural gas fired emergency generator	2020
Laboratory of Physical Science, Building #796			
EU #796-1	9-1546	One (1) diesel fired emergency generator set rated at 1,111 kWe, 1,490 bhp	2019
EU #796-2	9-1547	One (1) diesel fired emergency generator set rated at 1,111 kWe, 1,490 bhp	2019
EU #796-3	5-1662-1	One (1) HB Smith natural gas fired boiler rated at 2.403 MMBtu/hr.	2010
EU #796-4	5-1662-2	One (1) HB Smith natural gas fired boiler rated at 2.403 MMBtu/hr.	2010
General Permit			
Mobile	8-0425	Ten (10) Belson grills fired on liquid propane.	Various
Mobile	8-0425	Two (2) Holstein grills fired on liquid propane.	Various
Cole Field house Building #162			

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EU #162-1	9-1555	One (1) diesel fired emergency generator set rated at 1,194 bhp	2019
EU #162-2	8-0435	One (1) Jade Titan natural gas fired charbroiler.	2021
Gudelsky Vet Science Building #795			
EU #795-1	5-0980	One (1) Cleaver Brooks, Model #CB200-50, Serial #L8389, natural gas fired boiler rated at 2.1 MMBtu/hr.	1996
EU #795-2	5-0978	One (1) Cleaver Brooks, Model #CB200-200, natural gas fired boiler rated at 8.4 MMBtu/hr.	1996
EU #795-3	5-0979	One (1) Cleaver Brooks, Model #CB200-200, natural gas fired boiler rated at 8.4 MMBtu/hr.	1996
EU #795-4	9-1175	One (1) Caterpillar, Model #SR4, Serial #6FA04786, diesel fired emergency generator set rated at 890 bhp.	1986
Maryland Fire and Rescue Institute (MFRI), Building #199			
EU #199-2	5-1674	One (1) Weil McLain, Model #1080 natural gas fired boiler rated at 1.38 MMBtu/hr.	2021
Pocomoke Building #007			
EU #007-1	9-1419	One (1) Generac, Model #SD500, diesel fired emergency generator set rated at 500 kWe, 757 bhp	2013
Chesapeake Building #338			
EU #338-1	5-1664-1 & 5-1664-2	Two (2) Trane natural gas fired furnaces, each rated at 1 MMBtu/hr.	2019
Microbiology Building #231			
EU #231-1	9-1569	One (1) 550 bhp natural gas fired emergency generator	2016
UMD Golf Course Clubhouse, #166			
EU #166-1	8-0438	One (1) Vulcan Hart natural gas fired charbroiler.	2021
E.A Fernandez Idea Factory, #228			
EU #228-1	9-1583	One (1) John Deere diesel fired emergency generator set rated at 617 bhp	2021
Yahentamitsi Dining Hall, #436			
EU #436-1	9-1578	One (1) Kohler model #450REZXB natural gas fired emergency generator set rated at 684 bhp.	2020
EU #436-2 thru EU #436-6	8-0432	Five (5) Jade Model JMRH-36B and JMRH-48B natural gas fired charbroilers.	2021

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PART 70 OPERATING PERMIT NO. 24-033-0010**

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)

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SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

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

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

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

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

5. PERMIT RENEWAL

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

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

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements

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that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

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

7. PERMIT ACTIONS

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

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

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

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

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- b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;
- c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or
- d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

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

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

[COMAR 26.11.03.20B]

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

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

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

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

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

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- a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.
- b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.
- c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.
- d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

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

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

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- c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:
 - (1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;
 - (2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.
- d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).
- e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.
- f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.
- g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

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

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- a. A minor permit modification is a Part 70 permit revision that:
- (1) Does not result in a violation of any applicable requirement of the Clean Air Act;
 - (2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:
 - (a) Adding new requirements,
 - (b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or
 - (c) Changing from one approved test method for a pollutant and source category to another;
 - (3) Does not require or modify a:
 - (a) Case-by-case determination of a federally enforceable emissions standard,
 - (b) Source specific determination for temporary sources of ambient impacts, or
 - (c) Visibility or increment analysis;
 - (4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:
 - (a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and
 - (b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

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- (5) Is not a Title I modification; and
- (6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

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

- (1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;
- (2) The proposed minor permit modification;
- (3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:
 - (a) The proposed change meets the criteria for a minor permit modification, and
 - (b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;
- (4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

- (1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.
- (2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

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- (a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.
- (b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.
- d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.
- e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

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

- a. An application for an administrative permit amendment shall:
 - (1) Be in writing;
 - (2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

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- (3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.
- b. An administrative permit amendment:
- (1) Is a correction of a typographical error;
 - (2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;
 - (3) requires more frequent monitoring or reporting by the Permittee;
 - (4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);
 - (5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);
 - (6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);
 - (7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or
 - (8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.
- c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

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- d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.
- e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

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

- a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:
 - (1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (2) The change is not subject to any requirements under Title IV of the Clean Air Act;
 - (3) The change is not a Title I modification; and
 - (4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.
- b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

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- c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.
- d. The Permittee shall keep a record describing:
 - (1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and
 - (2) The emissions resulting from those changes.
- e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.
- f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit..
- g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.
- h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

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

- a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:
 - (1) The change is not a Title I modification;
 - (2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of

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- the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;
- (3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (4) The change does not violate an applicable requirement of the Clean Air Act;
 - (5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;
 - (6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;
 - (7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and
 - (8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.
- b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:
- (1) A description of the proposed change;
 - (2) The date on which the change is proposed to be made;
 - (3) Any change in emissions resulting from the change, including the pollutants emitted;
 - (4) Any new applicable requirement of the Clean Air Act; and

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- (5) Any permit term or condition that would no longer apply.
- c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.
- d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.
- e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.
- f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.
- g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.
- h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

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

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

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18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

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

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

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19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

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

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

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

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

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

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

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

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon

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presentation of credentials or other documents as may be required by law, to:

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

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

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

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

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

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24. COMPLIANCE REQUIREMENTS

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

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

- a. Enforcement action,
- b. Permit revocation or revision,
- c. Denial of the renewal of a Part 70 permit, or
- d. Any combination of these actions.

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

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

25. CREDIBLE EVIDENCE

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

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

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

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27. CIRCUMVENTION

[COMAR 26.11.01.06]

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

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

- a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;
- b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;
- c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;
- d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or
- e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

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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:

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

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5. ACCIDENTAL RELEASE PROVISIONS

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

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

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

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

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

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

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

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

- a. 40 CFR 60, appendix A
- b. 40 CFR 51, appendix M

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

8. EMISSIONS CERTIFICATION REPORT

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

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

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types and analyses of all fuels used;

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- (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
- (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
- (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
- (7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

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

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

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

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

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

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

The certification shall be in the following form:

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

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

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

- a. The location as specified in this permit, and the date and time that samples and measurements are taken;
- b. All pertinent operating conditions existing at the time that samples and measurements are taken;

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- c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;
- d. The identity of the Permittee, individual, or other entity that performed the analysis;
- e. The analytical techniques and methods used; and
- f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

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

These records and support information shall include:

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

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

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

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14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

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

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

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

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.157.

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16. ACID RAIN PERMIT

Not applicable

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SECTION IV PLANT SPECIFIC CONDITIONS

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

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

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

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1.0	<p><u>Emissions Unit Number(s): EU #001-7 & EU #001-8</u></p> <p>EU #001-7: One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner. [9-1081]</p> <p>EU #001-8: One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner. [9-1082]</p> <p>Located in the Central Heating Plant.</p>
1.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> <u>Combustion Turbines and Duct Burners</u> COMAR 26.11.09.05 - Visible Emissions.</p> <p>A. <u>Fuel Burning Equipment.</u> (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data,</p>

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

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

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

B. Control of Sulfur Oxides

Combustion Turbines only

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:

- (b) Distillate fuel oil, 0.3 percent."

40 CFR 60 Subpart GG: §60.333 - Standard for sulfur dioxide.

"On and after the date on which the performance test required to be conducted by Sec. 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:

- (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.
- (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)." ^{*(1)}

CPCN #8840 issued on October 25, 2000, amended December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, which limits sulfur in fuel content to 0.2 percent by weight.

***Note (1):** Compliance with the more stringent CPCN distillate fuel oil sulfur content of 0.2% will be used to determine compliance with the COMAR and NSPS Subpart GG fuel oil sulfur requirements.

C. Control of Nitrogen Oxides

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Combustion Turbines only

40 CFR Subpart GG - Standard for nitrogen oxides

§60.332(a). “On and after the date on which the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

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

$$\text{STD} = 0.0150 (14.4)/Y + F$$

Where:

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

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

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

(3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.

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

Fuel-bound nitrogen (% by weight)	F: (NO _x % by volume)
N<0.015	0
0.015<N<0.1	0.04(N)
0.1<N<0.25	0.004+0.0067(N-0.1)
N>0.25	0.005

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Where:

N=the nitrogen content of the fuel (percent by weight), or
Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by § 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register."

"(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."

Note (2): Based on CPCN application when taking no allowance for fuel bound nitrogen, the STD value nitrogen oxide emissions from each combustion turbine shall be limited to the following: 201 ppm (firing natural gas); and 199 ppm (firing No. 2 fuel oil).

COMAR 26.11.09.08G(2) - Control of NO_x Emissions for Major Stationary Sources - "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."

Capacity factor means either: (1) the ratio of a unit's actual annual electric output (expressed in MWe-hr) to the unit's nameplate capacity times 8760 hours, or (2) the ratio of a unit's annual heat input (in million British thermal units or equivalent units of measure) to the unit's maximum design heat input (in million British thermal units per hour or equivalent units of measure) times 8,760 hours. **[40 CFR 72.2]**

Note (3): *The Permittee shall comply with the more restrictive emission rate limits stipulated by the State regulation, COMAR 26.11.09.08G(2), which supersedes the federal regulation, §60.332 (a)(2).*

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	<p><u>Duct Burners only</u> 40 CFR §60.44b- Federal Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units - NO_x emissions from each duct burner shall be limited to <u>0.2 lbs./MM Btu</u>.</p> <p>COMAR 26.11.09.08D(1)(b)- <u>Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MM Btu per hour and Greater than 100 MM Btu/hr.</u> - All other fuel burning equipment with a rated heat input capacity of less than 250 MM Btu per hour shall meet the NO_x emission rates set forth in §B(1)(c) of this regulation. §B(1)(c): Emission Standards in Pounds of NO_x per MM Btu of heat input.</p> <table style="margin-left: auto; margin-right: auto; border: none;"> <thead> <tr> <th style="text-align: left;"><u>Fuel</u></th> <th style="text-align: center;"><u>Tangential-Fired</u></th> <th style="text-align: center;"><u>Wall-Fired</u></th> </tr> </thead> <tbody> <tr> <td>Gas Only</td> <td style="text-align: center;">0.20</td> <td style="text-align: center;">0.20</td> </tr> <tr> <td>Gas/Oil</td> <td style="text-align: center;">0.25</td> <td style="text-align: center;">0.25</td> </tr> </tbody> </table> <p><u>D. Operational Limit</u> <u>Combustion Turbines only</u> CPCN #8840 issued on October 25, 2000, and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, states that the Permittee shall burn only natural gas or No. 2 fuel oil in the combustion turbines.</p> <p>The combustion turbines shall be operated and maintained in accordance with the facility's combustion turbine operation and maintenance (O & M) plan, which can also include service agreements with outside maintenance contractors. A copy of the plan must be maintained on site and made available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p><u>Duct Burners only</u> CPCN #8840 issued on October 25, 2000, and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, states that the Permittee shall burn only natural gas in the duct burners.</p>	<u>Fuel</u>	<u>Tangential-Fired</u>	<u>Wall-Fired</u>	Gas Only	0.20	0.20	Gas/Oil	0.25	0.25
<u>Fuel</u>	<u>Tangential-Fired</u>	<u>Wall-Fired</u>								
Gas Only	0.20	0.20								
Gas/Oil	0.25	0.25								
1.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p>									

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B. Control of Sulfur Oxides

“Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).”[Reference:40 CFR 60 Subpart A – §60.8] (*Completed*)

40 CFR 60 Subpart GG - §60.335– Test methods and procedures:

(b)(10) “If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using: (i) For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see §60.17);

(b)(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.”

C. Control of Nitrogen Oxides

Combustion Turbines only

40 CFR 60 Subpart GG - §60.335 – Test methods and procedures:

“(a) The owner or operator shall conduct the performance tests required in Sec. 60.8, using either (1) EPA Method 20, (2) ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or (3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.”

40 CFR 60 Subpart GG - §60.335:

(b) “The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 in accordance with the requirements of Part (b) of this Section (§60.335).

Subsequent Testing: After the initial compliance test required under 40 CFR 60 Subpart GG, the owner or operator shall perform a stack test for each CGT unit once during the 5-year operating permit term, and not

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	<p>less than one year prior to expiration of the permit. All testing shall be completed, and the results submitted at least one year prior to the expiration of the operating permit. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> The Permittee shall sample the NOx emissions after any maintenance swap out or replacement of turbine drives including, rebuilds, replacements of shafts, turbine impellers, casings, liners, etc. Once installed, the replacement/rebuilt combustion turbines exhaust shall be tested for NOx emissions by calibrated handheld analyzer twice per operating day, such that readings occur approximately 12 hours apart. Reading shall take place for a minimum of 7 operating days and with the CT operating at a minimum of 90% of its capacity. Records of the sampling results shall be maintained on site and made available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p>
<p>1.3</p>	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> <u>Combustion Turbines only</u> The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year. The Permittee shall perform the following, if emissions are visible: (a) inspect combustion control system and combustion turbine operations, (b) perform all necessary adjustments and/or repairs to the combustion turbine 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 combustion turbine. The Permittee shall after 48 hours of operation, if the required adjustments and/or repairs had not eliminated the visible emissions, perform another Method 9 observation once daily when the combustion turbine is operating on No.2 fuel oil for 18 minutes until corrective action have eliminated visible emissions. [Reference: COMAR 26.11.03.06C].</p>

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B. Control of Sulfur Oxides

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40 CFR 60 Subpart GG § 60.334 - Monitoring of operations.

“(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

“(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.”

“(i) The frequency of determining the *sulfur* and *nitrogen* content of the fuel shall be as follows:

“(3) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in § 60.333.”

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

Sulfur Monitoring.

(a) Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).

(b) Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows variability in the fuel sulfur content, and indicated consistent

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- compliance with 40 CFR Section 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
- (c) If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emissions limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.
- (d) Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the EPA Regional Office Air Division of each excess emissions and the custom schedule shall be re-examined by the EPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

(3) If there is a change in fuel supply, the owner or operator must notify the EPA of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.”

[Reference: Letter dated October 6, 2000, from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

C. Control of Nitrogen Oxides

Combustion Turbines only

40 CFR 60 Subpart GG § 60.334 - Monitoring of operations.

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

“(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.

(1) **Nitrogen Oxides.** “Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.”

[Reference: Letter dated October 6, 2000 from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

The Permittee shall measure the NO_x content of the flue gases from each CGT for a 3 to 5-minute period every 168 hours of operation. The

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	<p>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. This requirement is waived for any combustion turbine and duct burner that operates less than 400 hours during a calendar quarter. [Reference: COMAR 26.11.03.06C]</p> <p><u>D. Operational Limit</u> <u>Combustion Turbines only</u> The Permittee shall calculate the monthly usage of No. 2 fuel oil and natural gas burned in the combustion turbines and shall calculate the usage for each 12-month rolling period. The calculations shall be completed within 30 days of the end of each calendar month. [Reference: COMAR 26.11.03.06C]</p> <p><u>Duct Burners only</u> The Permittee shall calculate the monthly usage of natural gas burned in the duct burners and calculate the usage for each 12-month rolling period. The calculations shall be completed within 30 days of the end of each calendar month. [Reference: COMAR 26.11.03.06C]</p>
<p>1.4</p>	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p><u>A. Control of Visible Emissions</u> The Permittee shall: (1) Maintain records of the results of visual emissions observations performed; (2) Maintain a record of the maintenance performed that relates to combustion performance; and (3) Maintain an operation manual and maintenance plan on site. [Reference: COMAR 26.11.03.06C]</p> <p><u>B. Control of Sulfur Oxides</u> <u>Combustion Turbines only</u> The Permittee shall maintain records of all fuel oil certifications indicating that the oil complies with the limitations on sulfur and nitrogen content and make them available to the Department upon request. The Permittee or its fuel supplier or designated agent shall</p>

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determine compliance with the sulfur content standard in § 60.333(b) as follows: ASTM D 2880-71, 78, or 96 shall be used to determine the sulfur content of liquid fuels.

Certification may include:

- i) a fuel supplier certification consisting of the name of the fuel oil supplier and a statement from the supplier that the fuel oil complies with specifications for fuel oil in accordance with Subpart GG - §60.335;
- ii) a record of fuel analysis by the Maryland State Comptroller's Office; and
- iii) A certified statement signed by the authorized representative of the facility, stating that the records of fuel supplier certifications submitted represent all of the fuel oil combusted.

[Reference: 40 CFR 60 Subpart GG - §60.335, & COMAR 26.11.03.06C]

(4) Record of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years or consistent with applicable State Permit [5 years], and be available for inspection by personnel of federal, state, and local air pollution control agencies.”

[Reference: Letter dated October 6, 2000, from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

C. Control of Nitrogen Oxides

The Permittee shall maintain a record of the results of the quarterly NO_x sampling analyses for a period of at least five years. **[Reference: COMAR 26.11.03.06C]**

D. Operational Limit

Combustion Turbines & Duct Burners

The Permittee shall maintain the following records on-site and make them available to the Department upon request:

- (1) Records of monthly No. 2 fuel oil and natural gas usage in the combustion turbines;
- (2) Records of the monthly natural gas usage burned in the duct burners; and
- (3) The Permittee shall maintain records of the occurrences and duration of any startup, shutdown and/or malfunctions in the operation of the combustion turbines
- (4) Maintenance records, including but not limited to the following:

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	<p>(a) Copy of operation and maintenance plan and/or copy maintenance contracts with outside contractors.</p> <p>(b) Records of work performed and why, i.e., scheduled maintenance or equipment failure, etc.</p> <p>(5) Records of any maintenance swap out or replacement of turbine drives including, rebuilds, replacements of shafts, turbine impellers, casings, liners, etc. Records shall also include the serial number(s) of the turbine casing, shaft, combustion liner and/or transition to be installed.</p> <p>[Reference: COMAR 26.11.03.06C]</p>
1.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall submit fuel certification report upon request by MDE. The Permittee shall maintain records of the results of the fuel sulfur content monitoring on site and shall make those records available to or submit them to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> COMAR General Administrative Provisions – <u>Testing and Monitoring.</u> The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to testing and a notice of intent to test at least 14 days prior to the scheduled test date. The Permittee shall submit the results of stack tests in a final report within 45 days from test completion. [Reference: COMAR 26.11.01.04A]</p> <p>The Permittee shall report the results of the quarterly NO_x sampling analyses to the Department within 30 days of the end of each calendar quarter. [Reference: COMAR 26.11.03.06C] {Note: Only required when CTs are firing No. 2 fuel oil}</p> <p>D. <u>Operational Limits</u> <i>Maintenance swap out/replacement of CTs:</i> The Permittee shall notify the Department 1 week prior to any turbine maintenance swap out or replacement as specified above. Prior notification is not required for</p>

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	<p>general maintenance or repairs, including replacement of turbine shafts, impellers, liners, etc.</p> <p>Notification shall include the reason for replacement, i.e., turbine failure, etc. Notification shall also include the serial number(s) of the turbine casing, shaft, combustion liner and/or transition to be installed.</p> <p>The Permittee shall provide the Department with the results of NO_x sampling, which is required after any rebuild, maintenance swap out or replacement of a turbine. The results shall be submitted within 14 days after the sampling. [Reference: COMAR 26.11.03.06C]</p>

“A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above.”

Table IV – 1a	
1a.0	<p><u>Emissions Unit Number(s): Combined Heat and Power Plant (CHP)</u></p> <p><u>Plant-Wide Emissions Cap</u> EU #001-7 & EU #001-8: Two-(2) GE Model PGT-10B/1, natural gas/No.2 fuel oil-fired 11.2 MW Combustion Turbines (CTs), each equipped with a 126 MM Btu/hr. duct burner and heat recovery steam generator (HRSG). EU #001-2: One 157 MM Btu/hr. Union Iron dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired boiler. EU #001-4: One 117 MM Btu/hr. Union Iron dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired boiler. EU #001-6: One 780 kW diesel fueled Caterpillar generator. EU #001-9: One 95 MM Btu/hr. Wabash dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired mobile boiler [5-1665] Located in the Central Heating Plant.</p>
1a.1	<p><u>Applicable Standards/Limits:</u></p> <p>CPCN #8840 issued on October 25, 2000, amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015 - To avoid triggering Prevention of Significant Deterioration (PSD) and</p>

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	<p>Nonattainment New Source Review (NA-NSR), the CHP air emission sources are to be operated under a plant-wide emissions cap with 12-month rolling emissions totals for each pollutant not to exceed:</p> <p>NO_x: 177 tons/year CO: 130 tons/year PM: 18.7 tons/year PM₁₀: 19 tons/year SO_x: 33.5 tons/year VOC: 19.8 tons/year</p> <p>The Permittee shall conduct emission calculations of NO_x, CO, PM₁₀, SO_x and VOC on a monthly basis for sources included in the plant-wide emissions cap. These calculations shall include the current month total emissions and the twelve-month rolling total emissions for NO_x, CO, PM₁₀, SO_x and VOC.</p>
1a.2	<p><u>Testing Requirements:</u></p> <p>(a) The owner or operator shall conduct performance stack tests for NO_x, CO, PM₁₀, SO_x and VOC emissions, for each CHP boiler once during the 5-year operating permit term, and not less than one year prior to expiration of the permit. The tests shall be conducted in accordance with the reference methods and procedures of 40 CFR 60 Appendix A.</p> <p>(b) The Permittee shall provide the Department at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. The Permittee shall provide the Department with two copies of the test protocols at least 30 days prior to any scheduled performance tests.</p> <p>(c) The Permittee shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. Results of most current stack test shall be used to determine compliance operational limitations and the Plant-wide Emissions Cap.</p> <p>(d) Results of most current stack test shall be used to determine emissions factors used to determine compliance with the Plant-wide Emissions Cap.</p>

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	[Reference: COMAR 26.11.01.04 & COMAR 26.11.03.06C]
1a.3	<p><u>Monitoring Requirements:</u></p> <p>The Permittee shall conduct emission calculations of NO_x, CO, PM₁₀, SO_x and VOC on a monthly basis for sources included in the plant-wide emissions cap. These calculations shall include the current month total emissions and the twelve-month rolling total emissions for NO_x, CO, PM₁₀, SO_x and VOC. Results of most current stack test(s) and/or sampling, as applicable, shall be used to determine compliance operational limitations and the Plant-wide Emissions Cap.</p> <p>[Reference: COMAR 26.11.03.06C and CPCN #8840 issued on October 25, 2000, and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015]</p>
1a.4	<p><u>Record Keeping Requirements:</u></p> <p>Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p>The Permittee shall maintain records of the emissions calculations on-site for at least five years and shall make them available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p>
1a.5	<p><u>Reporting Requirements:</u></p> <p>The Permittee shall report results of the CHP emission calculations (NO_x, CO, PM₁₀, SO_x, and VOC) to the Department within 30 days at the end of each calendar quarter. [Reference: COMAR 26.11.03.06C]</p>

"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."

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1b.0	<p><u>Emissions Unit Number(s): EU #001-9 & EU #001-10 & EU #360-3</u></p> <p>EU #001-9: One 95 MMBtu/hr. Wabash dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired mobile boiler [5-1665]</p> <p>EU #001-10: One 6.695 MMBtu/hr. Cleaver Brooks No.2 fuel fired mobile boiler [4-1980]</p> <p>EU #360-3: One 8.4 MMBtu/hr. Cleaver Brooks No.2 fuel fired mobile boiler [4-1974]</p> <p>Located in the Central Heating Plant or throughout the campus.</p>
1b.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05 - Visible Emissions.</p> <p>A. <u>Fuel Burning Equipment.</u> (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. (3) <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: (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.”</p> <p><i>NSPS applies to EU #001-9 (Reg No. 5-1665) only</i></p> <p>B. <u>Control of Particulate Matter</u> 40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units with a heat input capacity less than 100 MMBtu/hr. but greater than 10 MMBtu/hr. for construction began after June 9, 1989. §60.43c - Standard for particulate matter (PM). (c) On and after the date on which the initial performance test is completed or required to be completed under §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/h) or greater shall cause to be discharged into the atmosphere</p>

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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.

Note: Compliance with the “No Visible Emissions” requirements of COMAR 26.11.09.05A(2) and (3) will be used to show compliance with this NSPS standard.

C. Control of Sulfur Oxides

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: (b) **Distillate fuel oil, 0.3 percent.**”

NSPS applies to EU #001-9 (Reg. 5-1665) only

40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units with a heat input capacity less than 100 MMBtu/hr. but greater than 10 MMBtu/hr for construction began after June 9, 1989.

§60.42c - Standard for sulfur dioxide (SO₂).

(d) On and after the date on which the initial performance test is completed or required to be completed under §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 from oil; 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), (3), or (4) 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.).

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(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.

Note: The monitoring, record keeping, and reporting requirements under NSPS Subpart Dc will be used to demonstrate compliance with COMAR 26.11.09.07A and NSPS sulfur in fuel standards.

D. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

“(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

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

COMAR 26.11.09.08E. 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
- (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.

E. Operational Limit

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

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	<p>alternate fuels. [Reference: COMAR 26.11.02.09A & Permit to Construct Nos. 033-0010-4-01974 & -4-1980] The boiler shall burn primarily natural gas and No. 2 fuel oil during periods of curtailment unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. The boiler shall not burn any distillate fuel oil with sulfur content greater than 0.3% by weight. [Reference: COMAR 26.11.02.09A & Permit to Construct Nos. 033-0010-5-1665]</p>
1b.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements</p> <p>B. <u>Control of Particulate Matter</u> <i>NSPS applies to EU #001-9 (Reg. 5-1665) only</i> §60.45c - Compliance and performance test methods and procedures for particulate matter. (d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f)."</p> <p>C. <u>Control of Sulfur Oxides</u> <i>NSPS applies to EU #001-9 (Reg. 5-1665) only</i> §60.44c - Compliance and performance test methods and procedures for sulfur dioxide. (h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.</p> <p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall perform a combustion analysis for each installation at least once each year. [Reference: COMAR 26.11.09.08E(2)]</p> <p>E. <u>Operational Limit</u> See Record Keeping Requirements.</p>

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1b.3

Monitoring Requirements:

A. Control of Visible Emissions

(1) The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year.

The Permittee shall perform the following if emissions are visible:

- (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 boilers.

(2) The Permittee shall after 48 hours of operation, if the required adjustments and/or repairs had not eliminated the visible emissions, perform another Method 9 observation once daily when the boilers are operating on No.2 fuel oil for 18 minutes until corrective action have eliminated visible emissions. **[Reference: COMAR 26.11.03.06C]**

B. Control of Particulate Matter

See Monitoring Requirements for Control of Visible Emissions.

C. Control of Sulfur Oxides

NSPS applies to EU #001-9 (Reg. 5-1665) only

§60.46c - Emission monitoring for sulfur dioxide.

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

COMAR: The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation. **[Reference: COMAR 26.11.03.06C]**

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	<p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall optimize combustion based on the combustion analysis. [Reference: COMAR 26.11.09.08E(2)]</p> <p>E. <u>Operational Limit</u> See Record Keeping Requirements</p>
1b.4	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall maintain: (1) Records of the results of visual emissions observations performed for a period of at least 5 years; and (2) Records of maintenance performed on the boiler that relates to combustion performance for a period of at least five years. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Particulate Matter</u> See Record Keeping Requirement for Control of Visible Emissions.</p> <p>C. <u>Control of Sulfur Oxides</u> <i>NSPS applies to EU #001-9 (Reg. 5-1665) only</i> §60.48c - Reporting and recordkeeping requirements. “(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable. (11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. (f) Fuel supplier certification shall include the following information: (1) For distillate oil: (i) The name of the oil supplier;</p>

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	<p>(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and (iii) The sulfur content or maximum sulfur content of the oil.”</p> <p><i>COMAR:</i> The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation for at least 5 years. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain on site records of the following: (1) Results of the annual combustion analysis; and (2) Training program attendance for each operator. [Reference: COMAR 26.11.09.08E(5)]</p> <p>E. <u>Operational Limit</u> The Permittee shall maintain records of the quantity and types of fuel burned. [Reference: COMAR 26.11.02.19C(1)(c)]</p>
1b.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, “Report of Excess Emissions and Deviations.” [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Particulate Matter</u> See Reporting Requirement for Control of Visible Emissions.</p> <p>C. <u>Control of Sulfur Oxides</u> <i>NSPS applies to EU #001-9 (Reg. 5-1665) only</i> §60.48c - Reporting and recordkeeping requirements. (e)(11) The report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. (g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day. (j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the</p>

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	<p>Administrator and shall be postmarked by the 30th day following the end of the reporting period.</p> <p>COMAR: The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Control of Nitrogen Oxides</u> The Permittee shall submit: (1) The results of combustion analysis to the Department and the EPA upon request. [Reference: COMAR 26.11.09.08E(3)] (2) A record of the training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08E(5)]</p> <p>E. <u>Operational Limit</u> The Permittee shall submit records of the quantity and type of fuels burn with the annual emissions certification report. See permit condition 8 of Section III.</p>
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“A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above.”

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2.0	<p><u>Emissions Unit Number(s): EU #001-2 & EU #001-4</u></p> <p>EU #001-2: One 157 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler [5-0256] EU #001-4: One 117 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler [5-0159] Located in the Central Heating Plant.</p>
2.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05 - Visible Emissions.</p> <p>A. <u>Fuel Burning Equipment.</u> (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except</p>

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that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.

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

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

B. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**”

C. Control of Nitrogen Oxides

COMAR 26.11.09.08D(1)(b)- Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MM Btu per hour and Greater than 100 MM Btu/hr. - All other fuel burning equipment with a rated heat input capacity of less than 250 MM Btu per hour shall meet the NOx emission rates set forth in §B(1)(c) of this regulation.

§B(1)(c): Emission Standards in Pounds of NOx per MM Btu of heat input.

<u>Fuel</u>	<u>Tangential-Fired</u>	<u>Wall-Fired</u>
Gas Only	0.20	0.20
Gas/Oil	0.25	0.25

OR

Alternate Operating Scenario.

COMAR 26.11.09.08G(1) - Control of NOx Emissions

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 in writing;
- B. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform and optimize combustion at least once annually;

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	<p>C. Maintain the results of the combustion analysis at the site for at least two 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> <p><i>Note: if the capacity factor for these units in any calendar year is less than 15 percent, the boilers are subject to the NO_x requirements of COMAR 26.11.09.08G(1) only. If the capacity factor for these units in any calendar year is greater than 15 percent, the boilers are subject to the NO_x requirements of COMAR 26.11.09.08B(1).</i></p> <p>D. <u>Operational Limit</u> CPCN #8840 issued on October 25, 2000, and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, states that the Permittee shall burn only natural gas or No. 2 fuel oil in the boilers.</p>
2.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements</p> <p>B. <u>Control of Sulfur Oxides</u> See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u> See Monitoring Requirements.</p> <p>D. <u>Operational Limit</u> See Monitoring Requirements.</p>
2.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p>

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(1) The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year.

The Permittee shall perform the following if emissions are visible:

- (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 boilers.

(2) The Permittee shall after 48 hours of operation, if the required adjustments and/or repairs had not eliminated the visible emissions, perform another Method 9 observation once daily when the boilers are operating on No.2 fuel oil for 18 minutes until corrective action have eliminated visible emissions. **[Reference: COMAR 26.11.03.06C]**

B. Control of Sulfur Oxides

The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation.

[Reference: COMAR 26.11.03.06C]

C. Control of Nitrogen Oxides

(1) The Permittee shall measure the NO_x content of the flue gases from each boiler for a 15-minute period once a calendar quarter. 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. This requirement is waived for any boiler that operates less than 400 hours during a calendar quarter;

Conditions (2) & (3) apply if applicable to Alternate Scenario:

(2) For fuel-burning equipment that operates more than 500 hours during a calendar year, the Permittee shall perform and optimize combustion at least once annually.

(3) The Permittee shall maintain a record of the operator training for each operator at the site and make these records available to the Department upon request.

[Reference: COMAR 26.11.03.06C & COMAR 26.11.09.08G(1)]

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	<p>D. <u>Operational Limit</u> The Permittee shall maintain monthly records of the type and amount of fuels fired for each boiler. [Reference: COMAR 26.11.03.06C]</p>
2.4	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall maintain: (1) Records of the results of visual emissions observations for a period of at least 5 years; and (2) Records of maintenance performed that relates to combustion performance for a period of at least five years. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation for at least 5 years. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> (1) The Permittee shall maintain a record of the quarterly NOx sampling analyses for a period of at least five years.</p> <p><i>Conditions (2) & (3) apply if applicable to Alternate Scenario:</i> (2) The Permittee shall maintain the results of any annual combustion analyses required to be performed at the site for at least five years and make them available to the Department upon request.</p> <p>(3) The Permittee shall maintain a record of the operator training for each operator at the site and make these records available to the Department upon request.[Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> The Permittee maintain monthly records of the type and amount of fuels fired for each boiler.[Reference: COMAR 26.11.03.06C]</p>

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2.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall report results of the quarterly NOx sampling analyses to the Department within 30 days of the end of each calendar quarter. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> See Record Keeping Requirements.</p>

"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."

Table IV – 2a - MACT	
2a.0	<p><u>Emissions Unit Number(s): EU #001-2, EU #001-4, EU #001-9, EU #001-10 and EU #360-3</u></p> <p>EU #001-2: One 157 MMBtu/hr. dual (NG/No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler [5-0256]</p> <p>EU #001-4: One 117 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler [5-0159]</p> <p>EU #001-9: One 95 MMBtu/hr. Wabash dual (NG/No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired mobile boiler. [5-1665]</p> <p><i>These boilers are exempt from the requirements as they are considered existing gas-fired boilers.</i></p> <p>[Reference: §63.11195 - Are any boilers not subject to this subpart? (e) A gas-fired boiler as defined in this subpart]</p>

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	<p><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></p> <p><i>“Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler is restricted or 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 due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.”</i></p> <p>EU #001-10: One Cleaver Brooks No. 2 oil fired mobile boiler rated at 6.695 MMBtu/hr. [4-1980].</p> <p>EU #360-3: One Cleaver Brooks No. 2 oil fired mobile boiler rated at 8.4 MMBtu/hr. [4-1974]. Located throughout the campus</p> <p><i>These boilers are subject to the requirements of new oil-fired boiler greater than 5 MMBtu/hr. heat input.</i></p> <p>Located throughout the campus.</p>
2a.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of HAPs:</u> 40 CFR Part 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources §63.11194 - What is the affected source of this subpart? (a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section. (1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source. (2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.</p>

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Table IV – 2a - MACT

§63.11196 - What are my compliance dates?

(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

(1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than **March 21, 2014**.

(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than **March 21, 2014**.

(c) If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

§63.11201 - What standards must I meet?

(b) You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.

(d) These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in § 63.11237, during which time you must comply only with Table 2 to this subpart.

Table 2 to Subpart JJJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in § 63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

Your boiler is in this subcategory.	You must meet the following.
5. New oil-fired boilers with heat input capacity greater than 5 MMBtu/hr. that do not meet the	Conduct a tune-up of the boiler biennially

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<p>definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio</p>	<p>as specified in §63.11223.</p>
<p>§63.11210 - <u>What are my initial compliance requirements and by what date must I conduct them?</u></p> <p>(c) For <u>existing</u> affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in § 63.11196 and according to the applicable provisions in § 63.7(a)(2), except as provided in paragraph (j) of this section.</p> <p>(g) For <u>new</u> or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial, or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source.</p> <p>§63.11223 - <u>How do I demonstrate continuous compliance with the work practice and management practice standards?</u></p> <p>(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in § 63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while 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.</p> <p>(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.</p>	
2a.2	<p><u>Testing Requirements:</u></p> <p><u>Control of HAPs:</u></p>

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- (1) The Permittee must conduct a biennial performance tune-up no more than 25 months after the previous tune-up. For a new boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new boiler. **[Reference: 40 CFR §63.11223(b)]**
- (2) 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, but you must inspect each burner at least once every 36 months).
 - (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 inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
 - (d) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.
 - (e) Measure the concentrations in the effluent stream of CO 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 using a portable CO analyzer.
 - (f) Maintain onsite and submit, if requested by the Department, a biennial 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 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 tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that

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	<p>period. Units sharing a fuel meter may estimate the fuel use by each unit.</p> <p>(g) 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. [Reference: 40 CFR §63.11223(b)(1) through (7)]</p>
2a.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of HAPs:</u> The Permittee must operate and maintain, at all times, any affected source, including air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Reference: 40 CFR §63.11205(a)]</p>
2a.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 and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p><u>Control of HAPs:</u></p> <p>(1) The Permittee must keep a copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted as required in 40 CFR §63.10(b)(2)(xiv). [Reference: 40 CFR §63.11225(c)(1)]</p> <p>(2) The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 as follows:</p> <p>a. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.</p>

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	<p>b. Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure. [Reference 40 CFR §63.11225(c)(2)]</p> <p>(3) The Permittee must keep records of the occurrence and duration of each malfunction of the boiler or of associated air pollution control equipment and monitoring equipment. [Reference: 40 CFR §63.11225(c)(4)]</p> <p>(4) The Permittee must keep records of actions taken during periods of malfunctions to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation. [Reference: 40 CFR §63.11225(c)(5)]</p> <p>(5) The Permittee must keep the records in a form suitable and readily available for expeditious review. Each record must be kept for five (5) years following the date of each recorded action. The records must remain on site for at least two (2) years after the date of each recorded action. [Reference: 40 CFR §63.11225(d)]</p>
2a.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of HAPs:</u></p> <p>(1) The Permittee must submit all applicable notifications in 40 CFR §63.7(b), §63.8(e), §63.9(b) through (e), and §63.9(g) and (h). [Reference: 40 CFR §63.11225(a)(1)]</p> <p>(2) The Permittee must submit the Notification of Compliance Status in accordance with 40 CFR §63.9(h) no later than 120 days after the applicable compliance date specified in 40 CFR §63.11196. In addition to the information required in 40 CFR §63.9(h)(2), your notification must include the following certifications of compliance, as applicable, and signed by a responsible official:</p> <ul style="list-style-type: none"> a. "This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler." b. "This facility has had an energy assessment performed according to §63.11214(c)." <p>[Reference: 40 CFR §63.11225(a)(4)(i)-(iii), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]</p>

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Table IV – 2a - MACT	
	<p>(3) By March 1 of each affected calendar year, the Permittee must prepare a biennial compliance certification report for the previous two (2) calendar years containing the information specified in 40 CFR §63.11225(b). The Permittee must submit the report by March 15 if the Permittee had any instance described by 40 CFR §63.11225(b)(3). The compliance report must contain the following information:</p> <ol style="list-style-type: none"> a. Company name and address. b. Statement by a responsible official certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and requirements of 40 CFR 63, Subpart JJJJJJ. c. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, time periods during which the deviations occurred, and the corrective actions taken. <p>[Reference: 40 CFR §63.11225(b)(1) through (3)]</p>

"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."

Table IV – 3		
3.0	<u>Emissions Unit Number(s): Misc Small Boilers, Hot Water heaters and furnaces</u>	
	Building	MDE Registration No.
	Capacity	
	Ritchie Coliseum	5-0945 & 5-0946 - EU #004-1 & EU #004-2
		(2) PVI natural gas, 1.0 MMBtu/hr.
	Eppley Recreation Center	5-0947 - EU #068-1
		PVI natural gas, 1.4 MMBtu/hr.
		5-1680 - EU #068-7
		Therm natural gas, 2.0 MMBtu/hr.
		5-0949 - EU #068-3
		Natural gas, 2.45 MMBtu/hr.
		5-1457 - EU #068-4
		(2) Therm natural gas, 2.0 MMBtu/hr.
		5-1458 - EU #068-5
	Adele H. Stamp Student Union	5-1030 – EU #163-1
		(2) natural gas , 1.2 MMBtu/hr.
		5-1029 – EU #163-2
	Maryland Stadium	5-0856 – EU #361-1
		Jarco natural gas, 1.2 MMBtu/hr.
		5-0854 – EU #361-2
		(2) Jarco natural gas, 1.4 MMBtu/hr.
		5-0855 – EU #361-3

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Technology Advancement Program	5-0944 – EU #387-1 5-0943 – EU #387-2	(2) Cleaver Brooks, 3.0 MMBtu/hr.
SCUB III	5-0942 – EU #392-1 5-0941 – EU #392-2	(2) Lochinvar natural gas, 1.44 MMBtu/hr.
Research Greenhouse	5-1032 – EU #398-1 5-1033 – EU #398-2	(2) Hurst natural gas, 8.4 MMBtu/hr.
Biosciences Research	5-1226 – EU #413-1 5-1227 – EU #413-2 5-1228 – EU #413-3	(3) Fulton natural gas, 1.26 MMBtu/hr.
Chesapeake Building	5-1664-1 and 5-1664-2 – EU #338-1	(2) Trane natural gas, 1 MMBtu/hr.
SCUB II	5-1635 – EU #067-1 5-1636 – EU #067-2	(2) PVI natural gas, 2.01 MMBtu/hr.
Laboratory of Physical Science	5-1662-1 & 5-1662-2 – EU #796-3 & EU #796-4	(2) HB Smith natural gas, 2.403 MMBtu/hr.
Gudelsky Vet Science	5-0980 – EU #795-1	Cleaver Brooks natural gas, 2.1 MMBtu/hr.
	5-0978 – EU #795-2 5-0979 – EU #795-3	(2) Cleaver Brooks natural gas, 8.4 MMBtu/hr.
Maryland Fire and Rescue Institute	5-1674 – EU #199-2	Weil McLain natural gas, 1.38 MMBtu/hr.
3.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u> COMAR 26.11.09.05 - Visible Emissions. A. <u>Fuel Burning Equipment.</u> (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. (3) <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: (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.”</p> <p>B. <u>Control of Sulfur Oxides</u></p>	

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	<p>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: (b) Distillate fuel oil, 0.3 percent.”</p> <p>C. <u>Control of Nitrogen Oxides</u> COMAR 26.11.09.08B(5) - <u>Operator Training.</u> “(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> <p>COMAR 26.11.09.08F. - <u>Requirements for Space Heaters.</u> “(1) 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) 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>3.2</p>	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p>

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	<p>B. <u>Control of Sulfur Oxides</u> See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u> See Monitoring Requirements.</p>
3.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall keep the equipment in good working order and properly maintained as to assure compliance with the visible emissions requirements. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall obtain fuel supplier certifications stating the fuel oil is in compliance with the sulfur content in the fuel limitation. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall develop and maintain an operating and maintenance plan to minimize NO_x emissions . [Reference: COMAR 26.11.09.08F(1)(b)]</p>
3.4	<p><u>Record Keeping Requirements:</u></p> <p><u>Note</u> : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall maintain records of the results of visual emission observations for a period of at least 5 years. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitations for at least five years. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p>

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	The Permittee shall maintain the following for a period of at least 5 years: (1) records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan; (2) record of training program attendance for each operator; (3) an operations manual and preventative maintenance plan; and (4) records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08F & COMAR 26.11.03.06C]
3.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall record a training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.03.06C]</p>

"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."

Table IV – 4	
4.0	<p><u>Emissions Unit Number(s): Natural gas-fired and diesel-fired generators</u></p> <p>EU #001-6: diesel fired Caterpillar: 1,109 bhp [9-1083] EU #036-1: natural gas Caterpillar: 780 kWe / 1,106 bhp [9-0898] EU #039-1: diesel fired Stamford: 400 kWe [9-1184] EU #068-6: diesel fired Caterpillar: 500 kWe [9-1176] EU #142-2: diesel fired Cummins: 775 kWe / 1,135 bhp [9-0900] EU #228-1: diesel fired John Deere: 617 bhp [9-1583].</p>

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EU #360-1 & EU #360-2: (2) diesel fired Caterpillar: 500 kWe / 745 bhp [9-1178 & 9-1179]
EU#386-1: diesel fired Katolight: 500 kWe [9-1177]
EU #392-3: diesel fired Detroit: 835 kWe [9-1180]
EU #398-3: diesel fired Detroit: 450 kWe / 670 bhp [9-1191]
EU #405-1 & EU #405-2: (2) diesel fired Detroit: 700 kWe [9-1181 & 9-1182]
EU #413-4: diesel fired Detroit: 835 kWe / 1,120 bhp [9-1248]
EU #413-5: diesel fired Detroit: 835 kWe / 1,120 bhp [9-1183]
EU #795-4: diesel fired Caterpillar: 890 bhp [9-1175]

NSPS Subpart IIII

Building	MDE Registration No.	Capacity
Atlantic Building	9-1537 - EU #224-1	Caterpillar 2,220 bhp
School of Public Health	9-1536 - EU #255-1	Kohler 401 kWe / 538 bhp
Cole Fieldhouse	9-1555 – EU #162-1	1,194 bhp
Laboratory of Physical Science	9-1546 - EU #796-1 & 9-1547 - EU #796-2	(2) 1,111 kWe / 1,490 bhp
Patuxent Building	9-1545 - EU #010-1	685 bhp
Mobile	9-1517 - EU #810-1	500 kWe / 757 bhp
Physical Science Complex	9-1408 – EU #415-1	1,250 kWe / 2,220 bhp
SCUB VI (known as V)	9-1296 - EU #418-1	600 kWe / 918 bhp
Pocomoke Building	9-1419 - EU #007-1	Generac 500 kWe / 757 bhp
E.A. Fernandez Building	9-1583 – EU #228-1	John Deere: 617-bhp

NSPS Subpart JJJJ

Building	MDE Registration No.	Capacity
A. James Clark Hall	9-1495 - EU #429-1 & 9-1496 - EU #429-2	(2) Caterpillar 750 kWe
Brendan Iribe Center for Computer	9-1516 - EU #432-1	Kohler 400 kWe / 536 bhp

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Science and Innovation		
Prince Frederick Hall	9-1420 - EU #425-1	Cummins 395 kWe / 530 bhp
Oakland Hall	9-1387 - EU #419-1	450 kWe / 701 bhp
SCUB Building II	9-1568 – EU #067-3	Caterpillar 636 bhp
Microbiology Building	9-1569 – EU #231-1	550 bhp
Yahentamitsi Dining Hall	9-1578 – EU #436-1	Kohler 684 bhp

4.1 Applicable Standards/Limits:

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

E. Stationary Internal Combustion Engine Powered Equipment.

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

(3) Emissions During Operating Mode. A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(4) Exceptions.

(a) Section E(2) of this regulation does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(b) Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(i) Engines that are idled continuously when not in service: 30 minutes;

(ii) All other engines: 15 minutes.

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

B. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**”

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C. Control of Nitrogen Oxides

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

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

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

D. Operational Limit

Applies to EU #001-6 [Reg. No. 9-1083] only: diesel fired Caterpillar: 1109 hp (780 kW) emergency generator set.

CPCN #8840 issued on October 25, 2000, amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, which states that emissions from the emergency generator shall be *designed* not to exceed the following:

NO _x :	24.8 lb./hour
CO:	6.6 lb./hour
PM:	0.5 lb./hour
PM ₁₀ :	0.5 lb./hour
SO _x :	0.235 lb./hour
VOC:	0.7 lb./hour

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Table IV – 4	
4.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u> See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall perform a combustion analysis and optimize combustion at least annually for any engine that operates more than 500 hours during a calendar year. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> See Monitoring Requirements.</p>
4.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall monitor the hours of operation of each installation and perform a combustion analysis at least once each year for any engine that exceeds 500 hours per year of operation and optimize combustion based on the analysis. [Reference: COMAR 26.11.03.06C and COMAR 26.11.09.08G(1)(b)]</p> <p>D. <u>Operational Limit</u> The Permittee shall operate and maintain each generator in accordance with the manufacturer recommendations and/or the facility's preventive maintenance plan. [Reference: COMAR 26.11.03.06C]</p>

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4.4	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall maintain on site an operations manual and preventive maintenance plan that relates to combustion performance and maintain records of preventive maintenance that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u> The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitations for at least five years. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall maintain the following for a period of at least 5 years: (1) the results of the combustion analysis at the site and make these results available to the Department and the EPA upon request; (2) record of training program attendance for each operator; (3) records of hour of operation on a monthly basis for all engines. At the end of each month, the Permittee shall calculate the total hours for the calendar year. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> The Permittee shall maintain on site an operations manual and preventive maintenance plan that relates to combustion performance and maintain records of preventive maintenance that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p>
4.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]</p>

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	<p>B. <u>Control of Sulfur Oxides</u> The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u> The Permittee shall submit the following: (1) a list of operator training operator attendance to the Department upon request; and (2) results of the combustion analysis to the Department upon request whenever an engine operates more than 500 hours in a calendar year. [Reference: COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limit</u> See Record Keeping Requirements.</p>
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“A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above.”

Table IV – 4a

4a.0	<u>Emissions Unit Number(s): See Table below: NSPS Subpart IIII</u>	
	NSPS Subpart IIII	
	Building	MDE Registration No.
	Capacity	
	Atlantic Building	9-1537 - EU #224-1
	School of Public Health	9-1536 - EU #255-1
	Cole Fieldhouse	9-1555 – EU #162-1
	Laboratory of Physical Science	9-1546 - EU #796-1 & 9-1547 - EU #796-2
	Patuxent Building	9-1545 - EU #010-1
	Mobile	9-1517 - EU #810-1
	Physical Science Complex	9-1408 – EU #415-1
	SCUB VI (known as V)	9-1296 - EU #418-1
	Pocomoke Building	9-1419 - EU #007-1
	E.A Fernandez Idea Factory	9-1583 – EU #228-1

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	<p>Miscellaneous Diesel-fueled Generators subject to NSPS 40 CFR 60 Subpart III.</p> <p>Note: Requirements below apply to diesel engines manufactured after April 1, 2006, with a piston displacement less than 10 liters per cylinder.</p>
4a.1	<p><u>Applicable Standards/Limits:</u></p> <p>Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</p> <p>§60.4200 - <u>Am I subject to this subpart?</u> (a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. (1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is: 2007 or later, for engines that are not fire pump engines.</p> <p>§60.4205 - <u>What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?</u> (b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.</p> <p>Note: The Permittee shall satisfy the requirements above and §60.4202 by purchasing and installing engines certified at EPA Tier 2 or better.</p> <p>§60.4207 - <u>What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?</u> (b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters</p>

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	per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
4a.2	<p><u>Testing Requirements:</u></p> <p>See Monitoring Requirements.</p>
4a.3	<p><u>Monitoring Requirements:</u></p> <p><u>§60.4209 - What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?</u> If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211. (a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine. (b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.</p> <p><u>§60.4211 - What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?</u> (a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section: (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (2) Change only those emission-related settings that are permitted by the manufacturer; and (3) Meet the requirements of 40 CFR part 1068, as they apply to you. (c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you</p>

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are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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

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Table IV – 4a

or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(ii) –(iii) [Reserved]

(3) Emergency stationary ICE may be operated 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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) 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.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

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	(ii) [Reserved]
4a.4	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>(1) The Permittee shall the following maintain records on site for at least five (5) years and they shall be made available to the Department upon request:</p> <ul style="list-style-type: none"> (a) The operating hours for each generator, (b) Monthly records of fuel use, (c) Reason for generator operation (i.e., maintenance or operational testing, power outage, etc.), (d) A copy of the generator's and operations and maintenance manual, and records of maintenance and repair performed. <p>(2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):</p> <ul 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). <p>(3) For any NSPS emergency diesel generator the 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. [Reference: PTC 033-0010-9-1408, COMAR 26.11.03.06C, & 40 CFR 63, Subpart III]</p>
4a.5	<p><u>Reporting Requirements:</u></p> <p><u>§60.4214 - What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?</u></p>

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	<p>(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.</p> <p>(1) The report must contain the following information:</p> <p>(i) Company name and address where the engine is located.</p> <p>(ii) Date of the report and beginning and ending dates of the reporting period.</p> <p>(iii) Engine site rating and model year.</p> <p>(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.</p> <p>(v)-(vi) [Reserved]</p> <p>(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.</p>
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"A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above."

Table IV – 4b

4b.0	Emissions Unit Number(s): See Table below: NSPS JJJJ	
	NSPS Subpart JJJJ	
	Building	MDE Registration No.
	Capacity	
	A. James Clark Hall	9-1495 - EU #429-1 & 9-1496 - EU-#429-2
	Brendan Iribe Center for Computer Science and Innovation	9-1516 - EU #432-1
	Prince Frederick Hall	9-1420 - EU #425-1
	Oakland Hall	9-1387 - EU #419-1
	SCUB II	9-1568 - EU #067-3
		(2) Caterpillar 750 kWe
		Kohler 400 kWe / 536-bhp
		Cummins 395 kWe / 530-bhp
		450 kWe / 701 bhp
		Caterpillar 636-bhp

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	Microbiology Building	9-1569 – EU #231-1	550-bhp																																											
	Yahentamitsi Dining Hall	9-1578 – EU #436-1	Kohler 684-bhp																																											
Spark Ignition (SI) Generators subject to NSPS 40 CFR 60 Subpart JJJJ																																														
4b.1	<p><u>Applicable Standards/Limits:</u></p> <p>40 CFR 60 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines §60.4233 - <u>What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?</u> (e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.</p> <p><u>Emission Standards for Owners and Operators</u> <u>Table 1</u> to Subpart JJJJ of Part 60 - NO_x, CO, and VOC Emission Standards for..., and Stationary Emergency Engines >25 HP</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th rowspan="3" style="width: 15%;">Engine type and fuel</th> <th rowspan="3" style="width: 15%;">Maximum engine power</th> <th rowspan="3" style="width: 15%;">Manufacture date</th> <th colspan="6" style="text-align: center;">Emission standards ^a</th> </tr> <tr> <th colspan="3" style="text-align: center;">g/HP-hr.</th> <th colspan="3" style="text-align: center;">ppmvd at 15% O₂</th> </tr> <tr> <th style="text-align: center;">NO_x</th> <th style="text-align: center;">CO</th> <th style="text-align: center;">VOC ^d</th> <th style="text-align: center;">NO_x</th> <th style="text-align: center;">CO</th> <th style="text-align: center;">VOC ^d</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Emergency</td> <td style="text-align: center;">HP≥130</td> <td></td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">4.0</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">160</td> <td style="text-align: center;">540</td> <td style="text-align: center;">86</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>^a Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂. ^b Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart. ^c The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+ HC. ^d For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.</p> <p>§60.4234 - <u>How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?</u></p>							Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a						g/HP-hr.			ppmvd at 15% O ₂			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d	Emergency	HP≥130		2.0	4.0	1.0	160	540	86									
Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a																																											
			g/HP-hr.			ppmvd at 15% O ₂																																								
			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d																																						
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Table IV – 4b	
	<p>Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in § 60.4233 over the entire life of the engine.</p>
4b.2	<p><u>Testing Requirements:</u></p> <p><i>For EU \$419-1 only</i></p> <p>§60.4244 – <u>What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?</u></p> <p>Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.</p>
4b.3	<p><u>Monitoring Requirements:</u></p> <p>§60.4237- <u>What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?</u></p> <p>(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.</p> <p>§60.4243 - <u>What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?</u></p> <p>(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008 and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.</p> <p>(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subpart A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your</p>

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stationary SI internal combustion engine will not be considered out of compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in § 60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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

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require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(3) Emergency stationary ICE may be operated 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 and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per 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.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

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	<p>(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of § 60.4233.</p>
4b.4	<p><u>Record Keeping Requirements:</u> Note : All records must be maintained for a period of at least 5 years and be made available to the Department upon request. [Reference : COMAR 26.11.03.06C(5)(g)]</p> <p><u>Notification, Reports, and Records for Owners and Operators</u> §60.4245 - What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine? Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.</p> <p>(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section. (1) All notifications submitted to comply with this subpart and all documentation supporting any notification. (2) Maintenance conducted on the engine. (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to § 60.4243(a)(2), documentation that the engine meets the emission standards.</p> <p>(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all</p>

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stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in § 60.4231 must submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in § 60.4244 within 60 days after the test has been completed.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

- (1) The report must contain the following information:
 - (i) Company name and address where the engine is located.
 - (ii) Date of the report and beginning and ending dates of the reporting period.

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	<p>(iii) Engine site rating and model year.</p> <p>(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.</p> <p>(v) Hours operated for the purposes specified in § 60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4243(d)(2)(ii) and (iii).</p> <p>(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4243(d)(2)(ii) and (iii).</p> <p>(vii) Hours spent for operation for the purposes specified in § 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.</p> <p>(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.</p> <p>(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.</p>
4b.5	<p><u>Reporting Requirements:</u></p> <p>See Record Keeping Requirements.</p>

“A permit shield shall cover the applicable requirements identified for the emission unit(s) listed in the table above.”

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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. 53 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;

[For Areas III and IV]

The *affected fuel burning units* 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.

[For Distillate Fuel Oil]

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. 66 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:

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- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.
- (3) Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (4) 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;
- (5) No. 33 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

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compounds (VOC) from cold degreasing operations by meeting the following requirements:

- (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.
-
- (6) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
 - (7) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
 - (8) Confection cookers where the products are edible and intended for human consumption;

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- (9) ✓ Die casting machines;
- (10) ✓ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (11) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (12) ✓ 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;
- (13) ✓ 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;
- (14) Containers, reservoirs, or tanks used exclusively for:
- (a) ✓ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
- (b) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
- (c) No. 7 Storage of lubricating oils;
- (d) No. 91 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;
- (e) No. 60 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
- (f) No. 4 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

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- (g) No. 50 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;
- (15) Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;
- (16) 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;

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- (17) ✓ 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;
- (18) ✓ 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;
- (19) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (20) ✓ Firing and testing of military weapons and explosives;
- (21) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (22) ✓ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;
- (23) ✓ 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:

COMAR 26.11.06.08 - Nuisance.

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

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."

COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

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

2. Record Keeping and Reporting:

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

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

3. Specific Requirements for Charbroilers Only

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Equipment Unit	Registration Number
Grills – Holstein (2)	8-0425
Grills – Belson (10)	8-0425
EU #162-2	8-0435
EU #163-3	8-0424
EU #251-1	8-0329
EU #166-1	8-0438
EU #360-4	8-0227
EU #360-5	8-0228
EU #360-6	8-0229
EU #436-2	8-0432
EU #436-3	8-0432
EU #436-4	8-0432
EU #436-5	8-0432
EU #436-6	8-0432

- (a) If the charbroiler is located within 300 feet of any property line of any habitable dwelling:
- (1) The Permittee shall limit visible emissions to 10 percent opacity or less.
 - (2) The Permittee shall install a control device approved by the Department, if the installation cannot meet the 10 percent opacity limit without controls.
- (b) If the charbroiler is located more than 300 feet from the property line of any habitable dwelling, the Permittee shall limit visible emissions to 30 percent opacity or less.

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BACKGROUND

The University of Maryland (UMD) is located along US Route 1 in Prince George's County Maryland. The UMD is primarily an academic institution where most of the equipment is used for either utilities or power generation. Utility use includes heating and cooling for campus housing, offices, instructional and laboratory use. Primary power generation comes from the central steam plant/cogeneration facility operated by UMD. The facility also operates emergency generator sets for emergency power generation as needed, charbroilers, and other various boilers, heaters, and furnaces. The SIC code for the facility is 8221.

The following table summarizes the actual emissions from University of Maryland based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO _x (TPY)	SO _x (TPY)	PM ₁₀ (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2021	123.00	5.00	4.45	12.2	2.48	0.614
2020	102.00	4.28	2.70	13.9	2.39	0.465
2019	100.00	4.56	3.28	8.81	1.75	0.389
2018	104.15	3.58	2.47	12.74	2.34	0.462
2017	92.63	2.41	2.93	14.37	1.93	0.439

The major source threshold for triggering Title V permitting requirements in Prince George's 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 emission from the facility are greater than the major source threshold, University of Maryland is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

CHANGES SINCE LAST PART 70 OPERATING PERMIT

The following changes or modifications have been incorporated into the renewal Title V – Part 70 Operating Permit for University of Maryland:

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Additions:

Building	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
A James Clark Hall	9-1495 & 9-1496	Two (2) natural gas-fired emergency generator sets, each 750 kWe.	2016
Atlantic Building	9-1537	One (1) diesel-fired emergency generator set, 2,220 bhp	2019
Brendan Iribe Center for Computer Science and Innovation	033-0010-9-1516	One (1) Kohler natural gas-fired emergency generator set, 400 kWe/536 bhp.	2017
Chesapeake Building (#338)	5-1664-1 & 5-1664-2	Two (2) natural gas-fired boilers, each rated 1 million Btu per hour heat input.	2019
Cole Fieldhouse	9-1555	One (1) diesel-fired emergency generator set, 1,194 bhp	2019
	8-0435	One (1) Jade Titan natural gas fired charbroiler (GP issued 4/15/2021)	2021
Gudelsky Vet Science	5--0980	One (1) natural gas-fired boiler 2.1 million Btu per hour heat input.	1996
	5-0978 & 5-0979	Two (2) natural gas-fired boilers, each rated 8.4 million Btu per hour heat input.	1996
	9-1175	One (1) diesel-fired emergency generator set, 890 bhp	1986
Laboratory of Physical Science	9-1546 & 9-1547	Two (2) diesel-fired emergency generator sets, each 1,111 kWe/1,490 bhp.	2019
	5-1662	Two (2) natural gas-fired boilers, each rated 2.4 million Btu per hour heat input.	2010
Maryland Fire and Rescue Institute	5-1674	One (1) Weil McLain natural gas-fired boiler rated at 1.378 million Btu per hour heat input.	2021
Microbiology Building	9-1569	One (1) MTU natural-fired emergency generator set, 550-bhp.	2016
Mobile	8-0425	Two (2) Holstein grills & Ten (10) Belson grills]	Various
Patuxent Building	9-1545	One (1) diesel-fired emergency generator set, 685 bhp.	2008
Pocomoke Building	9-1419	One (1) diesel-fired emergency generator set, 500 kWe/757 bhp.	2013
Prince Frederick Hall	9-1420	One (1) natural gas-fired emergency generator set, 395 kWe/530 bhp	2008
School of Public Health	9-1536	One (1) diesel-fired emergency generator set, 401 kWe/538 bhp.	2018
SCUB II	5-1635 & 5-1636	Two (2) PVI natural gas-fired hot water heaters, each rated 2.01 million Btu per hour heat input.	2019

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Building	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
	033-0010-9-1568	One (1) MTU natural-fired emergency generator set, 636-bhp.	2020
Mobile	9-1517	One (1) Kohler diesel-fired emergency generator set, 500 kWe/ 757 bhp.	2017
	4-1974	One (1) No. 2 fuel oil fired mobile boiler rated at 8.4 MMBtu/hr.	2018
Adele H. Stump Student Union	8-0424	One (1) natural gas-fired charbroiler.	2019
E. A. Fernandez Idea Factory	9-1583	One (1) John Deere diesel generator set rated at 617-bhp.	2021
Yahentamitsi Dining Facility	8-0432	Five (5) Jade Model JMRH-36B and JMRH-48B natural gas fired charbroilers.	2021
	9-1578	One (1) Kohler model #450REZXB natural gas fired emergency generator rated at 684 bhp.	2020
UMD Golf Course Clubhouse	8-0438	One (1) Vulcan Hart natural gas charbroiler.	2005
Eppley Recreation Center	5-1680	One (1) Lars Model AP natural gas fired boiler rated at 2.0 MMBtu/hr. heat input.	2022
Central Heating Plant	5-1665	One (1) Wabash mobile dual fired boiler rated at 95 MMBtu/hr.	2019
	4-1980	One (1) Cleaver Brooks oil-fired mobile boiler rated at 6.695 MMBtu/hr.	2022

Removals:

Building	ARA Registration Number	Emissions Unit Name and Description	Date of Installation/Date of Removal
Atlantic Building	9-1190 & 9-0901	Two (2) diesel-fired emergency generator sets (500kWe & 750 kWe/1,118 bhp)	Removed
Denton Dining Hall	8-0331 & 8-0330	Two (2) Jade natural gas charbroilers.	Removed
Ellicott Dining Hall	8-0195	One (1) natural gas charbroiler	Removed
Gossett Team House	8-0256	One (1) natural gas-fired charbroiler	Removed
Oakland Hall	5-1503 & 5-1504	Two (2) natural fired-fired boilers, each rated < 1 MMBtu/hr.	Insignificant units
President's Event Center (University House)	8-0349	One (1) Jade JTKC-36 natural gas-fired charbroiler	Removed

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Building	ARA Registration Number	Emissions Unit Name and Description	Date of Installation/Date of Removal
SCUB II	5-0849 & 5-0850	Two (2) natural fired-fired boilers, each rated 2.4 MMBtu/hr.	Removed
South Campus Dining Hall	8-0278	One (1) natural gas-fired charbroiler	Removed
Adel H. Stamp Student Union	8-0225 & 8-0226	Two (2) natural gas-fired charbroilers	Removed
Animal Science Building	4-1973	One (1) mobile temporary 6.3 MMBtu boiler	June 25, 2019; Demobilized
Central Heating Plant	4-1972	One (1) Temporary natural gas/ No. 2 oil-fired boiler rated at 100 MMBtu/hr.	Removed April 5, 2019
	4-1975	One (1) temporary mobile 95 MMBtu boiler	April 5, 2019, converted to permanent with new reg. number
Maryland Fire and Rescue Institute, #199	5-0977	One (1) natural gas-fired boiler rated at 1.4 million Btu per hour heat input.	Removed/Replaced
Eppley Recreation Center	5-1456	One (1) Lars Mighty Therm natural gas-fired pool heating boiler rated at 2.0 MMBtu/hr. for indoor pools.	Removed
Neutral Buoyancy Research Facility	5-0864	One (1) 2.2-MMBtu/hr. natural gas furnace	Removed

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

Several emission units at the UMD are subject to the following NSPS:

Subpart Dc for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units 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/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

The 95 MMBtu/hr. Wabash mobile dual-fired boiler located at the CHP is subject to NSPS Dc requirements.

Subpart Db for Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units applies to steam generating unit that commenced construction, modification, or reconstruction after June 19, 1984, and that have a

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heat input capacity greater than 100 million British thermal units per hour (MMBtu/hr.):

The boilers at the CHP have rated capacities greater than 100 MMBtu/hr. but were constructed prior to the applicability date. However, the duct burners are subject to the NO_x requirements of Subpart Db.

Subpart GG for Standards of Performance for Stationary Gas Turbines applies to stationary gas turbines with a rated capacity equal to or greater than 10 MMBtu/hr. based on the lower heat value of the fuel fired.

The two (2) combustion turbines at the CHP are subject to Subpart GG standards.

Subpart IIII for Stationary Compression Ignition Internal Combustion Engines applies to stationary compression ignition (CI) internal combustion engines (ICE) constructed after July 11, 2005, and either manufactured after April 1, 2006, or modified or reconstructed after July 11, 2005.

UMD has eleven (11) emergency generator sets manufactured after April 1, 2006, and therefore subject to 40 CFR 60, Subpart IIII requirements.

Subpart JJJJ for Standards of Performance for Stationary Spark Ignition Internal Combustion Engines applies to owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE is manufactured.

UMD has eight (8) emergency generator sets manufactured after January 1, 2009, subject to 40 CFR 60, Subpart JJJJ.

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

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

Subpart ZZZZ — Stationary Reciprocating Internal Combustion Engines. Requirements for Existing Stationary RICE Located at Area Sources of HAP

UMD has fifteen (15) Engines that are exempt from the RICE requirements pursuant to 40 CFR §63.6568(f)(3) for existing institutional emergency RICE.

Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

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Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.

UMD has several natural gas boilers that are exempt from these requirements, including the CHP boilers and the 95 MMBtu/hr. Wabash mobile boiler (5-1665) which only use No. 2 fuel oil during gas curtailment, supply interruptions, testing, training and maintenance. The 8.4 MMBtu/hr. mobile boiler (4-1974) use No. 2 fuel oil and is subject to this Boiler MACT. The 6.695 MMBtu/hr. mobile boiler (4-1980) uses No. 2 fuel oil and is also subject to this Boiler MACT.

COMPLIANCE ASSURANCE MONITORING (CAM)

UMD conducted a Compliance Assurance Monitoring (CAM) analysis for the facility and determined that the facility is not subject to the (CAM) Rule 40 CFR Subpart 64. CAM is intended to provide a reasonable assurance of compliance with applicable requirements under the Clean Air Act for large emission units that rely on air pollution control (APC) equipment to achieve compliance. The CAM approach establishes monitoring for the purpose of: (1) documenting continued operation of the control measures within ranges of specified indicators of performance (such as emissions, control device parameters, and process parameters) that are designed to provide a reasonable assurance of compliance with applicable requirements; (2) indicating any excursions from these ranges; and (3) responding to the data so that the cause or causes of the excursions are corrected. In order for a unit to be subject to CAM, the unit must be located at a major source, be subject to an emission limitation or standard; use a control device to achieve compliance; have pre-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. UMD campus does not have any emission units that utilize control devices. Therefore, CAM regulations do not apply to the campus.

GREENHOUSE GAS (GHG) EMISSIONS

UMD 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, boilers and combustion turbines) contained within the facility premises applicable to UMD. 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

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of PSD, emission certifications report for the years 2019, 2020, and 2021, showed that UMD is a major source (threshold: 100,000tpy CO₂e) 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 UMD based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2019 tpy CO ₂ e	2020 tpy CO ₂ e	2021 tpy CO ₂ e
Carbon dioxide CO ₂	1	107,358.07	115,255.15	129,439.32
Methane CH ₄	25	2.03	2.21	2.46
Nitrous Oxide N ₂ O	298	0.205	0.230	0.250
Total GHG CO₂eq		107,360.31	115,257.59.50	129,442.03

EMISSION UNIT IDENTIFICATION

University of Maryland has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
Central Heating Plant (CHP), Building #001			
EU #001-7	9-1081	One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner	2004
EU #001-8	9-1082	One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner	2004
EU #001-2	5-0256	One (1) NG/No. 2 fuel oil during	1976

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		curtailment/supply interruptions/startup/testing/training only fired 157 MMBtu/hr. Union Iron boiler	
EU #001-4	5-0159	One (1) NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only fired 117 MMBtu/hr. Union Iron boiler	1966
EU #001-6	9-1083	One (1) diesel-fired 1,109 bhp, 780 kWe, Caterpillar emergency generator set	2004
EU #001-9	5-1665	One (1) Wabash dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired mobile boiler rated at 95 MMBtu/hr.	2019
EU #001-10	4-1980	One (1) Cleaver Brooks No. 2 fuel oil-fired mobile boiler rated at 6.695 MMBtu/hr.	2022
EU #001-11	4-1974	One (1) Cleaver Brooks No. 2 fuel oil-fired mobile boiler, Model CB200, rated at 8.4 MMBtu/hr.	2018
Ritchie Coliseum, Building #004			
EU #004-1	5-0945	One (1) PVI 1.0 MMBtu/hr. natural gas-fired hot water heater	1997
EU #004-2	5-0946	One (1) PVI 1.0 MMBtu/hr. natural gas-fired hot water heater	1997
Plant Sciences Building #036			
EU #036-1	9-0898	One (1) natural gas-fired Caterpillar emergency generator set, Model #3516, 780 kWe; Caterpillar engine, Model #9Y0598, Serial #3RC99077, 1,106 bhp	1996
Van Munching, Building #039			
EU #039-1	9-1184	One (1) Stamford diesel-fired emergency generator set rated at 400 kWe, Model #GTA19, 596 bhp	2003
Eppley Recreation Center, Building #068			
EU #068-1	5-0947	One (1) PVI natural gas-fired water heater rated at 1.4 MMBtu/hr.	1997
EU #068-3	5-0949	One (1) 2.45 MMBtu/hr. natural gas-fired hot water heater	1997
EU #068-4	5-1457	One (1) Lars Mighty Therm natural gas-fired pool heating boiler rated at 2.0 MMBtu/hr. for indoor pools.	2009

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EU #068-5	5-1458	One (1) Lars Mighty Therm natural gas-fired pool heating boiler rated at 2.0 MMBtu/hr. for indoor pools.	2009
EU #068-6	9-1176	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #572RSL4027, 745 bhp.	1996
EU #068-7	5-1680	One (1) Lars Mighty Therm natural gas fired boiler rated at 2 MMBtu/hr. for indoor pools.	2022
Animal Sciences Building #142			
EU #142-2	9-0900	One (1) Cummins diesel-fired emergency generator set, Model #CC634A, Serial #D892174048, rated 775 kWe; Cummins engine, Model #KTA38-38G51, Serial #33115424, emergency generator set has a maximum rated capacity of 1,135 bhp	1990
Adele H. Stamp Student Union, Building #163			
EU #163-1	5-1030	One (1) natural gas-fired hot water heater rated 1.2 MMBtu/hr.	2000
EU #163-2	5-1029	One (1) natural gas-fired hot water heater rated 1.2 MMBtu/hr.	2000
EU #163-3	8-0424	One (1) natural gas fired charbroiler.	2019
Denton Dining Hall, Building #251			
EU #251-1	8-0329	One (1) Jade KC-36 charbroiler.	2009
Xfinity (formerly Comcast) Center, Building #360			
EU #360-1	9-1178	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #SR4, Serial AFE00146,745 bhp	2001
EU #360-2	9-1179	One (1) diesel-fired Caterpillar emergency generator set rated at 500 kWe, Model #SR4, Serial AFE00177,745 bhp	2001
EU #360-4	8-0227	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
EU #360-5	8-0228	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
EU #360-6	8-0229	One (1) natural gas fired Magikitchen RMB 48 charbroiler	2001
Maryland Stadium, Building #361 (formerly Byrd)			
EU #361-1	5-0856	One (1) natural gas fired Jarco water heater rated at 1.2 MMBtu/hr., model	1995

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		#AJH120, Serial #680.	
EU #361-2	5-0854	One (1) natural gas fired Jarco water heater rated at 1.4 MMBtu/hr., model #AJH140, Serial #677.	1995
EU #361-3	5-0855	One (1) natural gas fired Jarco water heater rated at 1.4 MMBtu/hr., model #AJH140, Serial #676.	1995
Clarice Smith Performing Arts Center, Building #386			
EU#386-1	9-1177	One (1) diesel fired Katolight emergency generator set rated at 500 kWe, Model #D500FRXY, 745 bhp	2000
Technology Advancement Program Building #387			
EU #387-1	5-0944	One (1) natural gas fired Cleaver Brooks Model M4W boiler rated at 3.0 MMBtu/hr.	1998
EU #387-2	5-0943	One (1) natural gas fired Cleaver Brooks Model M4W boiler rated at 3.0 MMBtu/hr.	1998
SCUB III, Building #392			
EU #392-1	5-0942	One (1) natural gas fired Lochinvar boiler rated at 1.44 MMBtu/hr.	1998
EU #392-2	5-0941	One (1) natural gas fired Lochinvar boiler rated at 1.44 MMBtu/hr.	1998
EU #392-3	9-1180	One (1) diesel fired Detroit emergency generator set rated at 835 kWe, Model #750DS4, 1,120 bhp.	2001
Research Greenhouse, Building #398			
EU #398-1	5-1032	One (1) natural gas fired boiler rated at 8.4 MMBtu/hr., Hurst Series 100 three-pass firebox design with Model CR4-G-30 burner	2002
EU #398-2	5-1033	One (1) natural gas fired boiler rated at 8.4 MMBtu/hr., Hurst Series 100 three-pass firebox design with Model CR4-G-30 burner	2002
EU #398-3	9-1191	One (1) diesel fired Detroit Diesel emergency generator set rated at 450 kWe, Model #450DSE4, 670 bhp	2003
SCUB IV, Building #405			
EU #405-1	9-1181	One (1) diesel fired Detroit Diesel emergency generator rated at 700 kWe, Model; #750D34	2001

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EU #405-2	9-1182	One (1) diesel fired Detroit Diesel emergency generator rated at 700 kWe, Model; #750D84	2001
Biosciences Research Building, #413			
EU #413-1	5-1226	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-2	5-1227	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-3	5-1228	One (1) natural gas fired Fulton Steam boiler rated at 1.26 MMBtu/hr.	2006
EU #413-4	9-1248	One (1) diesel fired Detroit Diesel emergency generator set rated at 835 kWe, Model #750DSEB, 1,120 bhp	2006
EU #413-5	9-1183	One (1) diesel fired Detroit Diesel emergency generator set rated at 835 kWe, Model #750D84, 1,120 bhp	2002
SCUB VI, Building #418			
EU #418-1	9-1296	One (1) diesel fired Kohler emergency generator set rated at 600 kWe, Model #600REOZMB, 918 bhp	2008
Oakland Hall, Building #419			
EU #419-1	9-1387	One (1) natural gas fired Stamford emergency generator set, Model 450FGACC, rated at 450 kWe, Cummins engine, Model GTA28CC, rated 701 bhp	2012
Physical Sciences Complex, Building #415			
EU #415-1	9-1408	One (1) Cummins diesel fired emergency generator set, Model 1250DQGAA, rated at 1,250 kWe, Cummins engine, Model QSK50-G4 NR2, 2,220 bhp	2013
A. James Clark Hall, Building #429			
EU #429-1	9-1495	One (1) Caterpillar natural gas fired emergency generator set, Model G3512, rated 750 kWe.	2016
EU #429-2	9-1496	One (1) Caterpillar natural gas fired emergency generator set, Model G3512, rated 750 kWe.	2016
Atlantic Building #224			
EU #224-1	9-1537	One (1) Caterpillar diesel fired emergency generator set, Model G3512, rated 1,250	2019

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		kWe, Cummins engine, Model QSK50, rated at 2,220 bhp. (PTC issued Mar 20, 2019)	
Brendan Iribe Center for Computer Science and Innovation, Building #432			
EU #432-1	9-1516	One (1) Kohler natural gas fired emergency generator set, Model 400REZXB, rated at 400 kWe, 536 bhp.	2017
Patuxent Building #010			
EU #010-1	9-1545	One (1) diesel fired emergency generator set rated at 685 bhp	~2008
Prince Frederick Hall, Building #425			
EU #425-1	9-1420	One (1) Cummins natural gas fired emergency generator set, Model KTA19G, rated at 395 kWe, 530 bhp.	2013
School of Public Health, Building #225			
EU #225-1	9-1536	One (1) Kohler diesel fired emergency generator set, Model 350REOZB, rated at 401 kWe, 538 bhp.	2018
Mobile			
EU #810-1	9-1517	One (1) mobile diesel fired emergency generator set, rated at 500 kWe, 757 bhp.	2017
SCUB II, Building #067			
EU #067-1	5-1635	One (1) PVI natural gas fired hot water heater rated at 2.01 MMBtu/hr.	January 2019
EU #067-2	5-1636	One (1) PVI natural gas fired hot water heater rated at 2.01 MMBtu/hr.	January 2019
EU #067-3	9-1568	One (1) Caterpillar 636 bhp natural gas fired emergency generator	March 2020
Laboratory of Physical Science. Building #796			
EU #796-1	9-1546	One (1) diesel fired emergency generator set rated at 1,111 kWe, 1,490 bhp	2019
EU #796-2	9-1547	One (1) diesel fired emergency generator set rated at 1,111 kWe, 1,490 bhp	2019
EU #796-3	5-1662-1	One (1) HB Smith natural gas fired boiler rated at 2.403 MMBtu/hr.	2010
EU #796-4	5-1662-2	One (1) HB Smith natural gas fired boiler rated at 2.403 MMBtu/hr.	
General Permit			
Mobile	8-0425	Ten (10) Belson grills fired with liquid propane.	Various

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Mobile		Two (2) Holstein grills fired on liquefied propane.	Various
Cole Field House, Building #162			
EU #162-1	9-1555	One (1) diesel fired emergency generator set rated at 1,194 bhp	2019
EU #162-2	8-0435	One (1) Jade Titan natural gas fired charbroiler. (GP issued April 15, 2021)	2021
Gudelsky Vet Science, Building #795			
EU #795-1	5-0980	One (1) Cleaver Brooks, Model #CB200-50, Serial #L8389, natural gas fired boiler rated at 2.1 MMBtu/hr.	1996
EU #795-2	5-0978	One (1) Cleaver Brooks, Model #CB200-200, natural gas fired boiler rated at 8.4 MMBtu/hr.	1996
EU #795-3	5-0979	One (1) Cleaver Brooks, Model #CB200-200, natural gas fired boiler rated at 8.4 MMBtu/hr.	1996
EU #795-4	9-1175	One (1) Caterpillar, Model #SR4, Serial #6FA04786, diesel fired emergency generator set rated at 890 bhp	1986
Maryland Fire and Rescue Institute (MFRI), Building #199			
EU #199-2	5-1674	One (1) Weil McLain, Model #1080 natural gas fired boiler rated at 1.38 MMBtu/hr. PTC issued May 6, 2021)	June 2021
Pocomoke Building #007			
EU #007-1	9-1419	One (1) Generac, Model #SD500, diesel fired emergency generator set rated at 500 kWe, 757 bhp	2013
Chesapeake Building #338			
EU #338-1	5-1664-1 & 5-1664-2	Two (2) Trane natural gas fired furnaces, each rated at 1 MMBtu/hr.	2019
Microbiology Building #231			
EU #231-1	9-1569	One (1) 550 bhp natural gas fired emergency generator	2016
E. A. Fernandez Idea Factory, Building #228			
EU #228-1	9-1583	One (1) John Deere diesel fired emergency generator set rated at 617-hp (GP issued Jan 14, 2021).	2021
Yahentamitsi Dining Facility, Building #436			
EU #436-2	8-0432	Five (5) Jade Model JMRH-36B and JMRH-	2021

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thru #436-6		48B natural gas fired charbroilers. (GP issued Dec 16, 2020)	
EU #436-1	9-1578	One (1) Kohler natural gas fired emergency generator set rated at 684-bhp. (PTC issued October 13, 2020)	2020
Golf Course Clubhouse, Building #166			
EU #166-1	033-0010-8-0438	One (1) Vulcan Hart natural gas charbroiler (GP issued Sept 29, 2021)	2021

Note: Requirements for charbroilers are listed under State-Only Enforceable Conditions.

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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.

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

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

Historical Information:

A Certificate of Public Convenience and Necessity (CPCN) Case No. 8840 was issued on October 25, 2000 for modifications to the central steam plant to convert it to a Combined Heat and Power Plant (CHP) on the campus of UMCP. The modifications included replacing two of the four existing natural gas and No. 6 fuel oil boilers with two new co-generation units.

The CPCN issued on October 25, 2000 permitted the Permittee to burn natural gas and No. 6 oil in the boilers. In addition, the CPCN established total annual natural gas and fuel usage on each piece of equipment within the CHP to restrict annual emissions to the atmosphere and avoid triggering Prevention of Significant Deterioration (PSD) and non-attainment New Source Review (NSR).

An amended CPCN issued in December 2003 established a plant-wide air emissions cap for the Combined Heat and Power Plant (CHP) instead of having fuel restrictions on each piece of equipment in the CHP. The CHP includes the two combustion turbines, the two large boilers and one diesel generator. Short-term (pounds per hour) limits on each unit were retained, due to fact that they are specified in the CPCN. However, the SO_x emissions limit for the CHP's emergency diesel generator, which is based on AP-42 emissions rates, was amended due to a typographical error in the CPCN. The hourly emissions limit presented in the permit and CPCN do not represent BACT limits and only apply to the CHP. The corrected SO_x emissions factor for the generator (Ref. Miscellaneous Generators Section IX. – D. Operational Limitations) is higher and therefore more conservative, when used in determining emissions that apply to the Plant Wide Emissions Cap or the annual emissions certification. And, since the actual certified emissions for the entire campus are much less than the Plant-Wide Emissions Cap which only apply to the CHP, the hourly emissions rate's effect on the facility's annual emissions are inconsequential.

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In addition, Boilers 2 and 4 were converted to burn natural gas and No. 2 fuel oil (instead of No. 6 oil) and the existing No. 6 fuel oil tank was converted to a No. 2 fuel oil tank.

As part of the Title V renewal process EPA Region III submitted comments with reference to previous CPCNs issued for projects involving modification to the Central Steam Plant in 2000 and 2003 to convert it to a combined heat and power plant (CHP), in particular they questioned whether PSD was triggered for sulfur dioxide. Upon follow-up review, Power Plant Research Program (PPRP) and MDE-ARA proposed to address the issues raised by Region III through an amendment of the CPCN and Licensing Conditions, including revision of the CHP Plant-wide PSD/NSR limitations {Ref: Letter to David Collins, MD Public Service Commission; from PPRP & MDE-ARA – dated June 26, 2014 & MD PSC Case No. 8840 – amended July 30 2014} However, per EPA these plant-wide emissions caps are not considered a NSR Plant-wide Applicability Limit “PAL” that would allow future modifications to the plant without triggering NSR. Once the caps are in place (per CPCN Case No. 8840 – amended July 30 2014), all of the CHP emissions units will be linked forever and any future modification will require an evaluation of the contemporaneous increases and decreases at the plant, regardless of whether or not they are part of the project at hand. {Ref: Email from Dave Talley – EPA to Bill Paul- MDE-ARA, dated May 19, 2014}

As part of the 2014 operating permit renewal process, and while reviewing the revised hourly emission limits against 2004 stack test data, the University determined that the result of the 2004 stack test for NO_x emissions was higher than the new hourly NO_x limit for Boiler Nos. 2 and 4 (although it complied with the current limit). The University consulted with PPRP and MDE about how to address this issue. The parties agreed that with the Annual Cap in place, the hourly emission limits were superfluous and could be deleted from the CPCN.

Drawing upon the 2004 stack test results, the University re-calculated the original NO₂/NO_x emissions netting analyses and found that the net emissions from Boiler No. 2 and Boiler No. 4 were below the thresholds for both Prevention of Significant Deterioration regulations (40 tons per year) and the Nonattainment New Source Review regulations (25 tons per year). The net emissions from the CHP's combustion turbines were unaffected by deleting the hourly emission limits. On May 11, 2015 amendments were proposed to the CPCN which included the removal of the hourly emission limits for Boiler 2 & 4. The CPCN amendments were approved on July 1, 2015. {Ref.: Motion to Reopen and Amend CPCN Case No. 8840 5-11-2015 and Letter Order from 7/1/2015}

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Administrative Meeting granting Motion to Reopen and Amend CPCN Case No. 8840.}

Emissions Unit(s): EU #001-7 & EU #001-8

EU #001-7: One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner. [9-1081]

EU #001-8: One (1) GE model PGT-10B/1, NG/No.2 fuel oil fired 11.2 MWe – 16,200 bhp combustion turbine equipped with a 126 MMBtu/hr. duct burner. [9-1082]

Compliance Status

During the December 21, 2017 inspection, it was reported that both units **EU #001-2 & EU #001-4** were operating. A Method 9 observation was performed on unit, **EU #001-4**, no visible emissions observed. In 2016, CT #1 burned fuel oil for 45.4 hours and CT#2 burned fuel oil for 67.5 hours.

A stack test was conducted September 18-28, 2018 on **EU #001-2 & EU #001-4 CTs and boilers**. The results are as follows: CTs tested on natural gas: NO_x – 1.2 ppmvd@15% O₂ (0.004 lb./MMBtu) in compliance with the limit of 42 ppmvd @15% O₂ (0.20 lb./MMBtu). Boilers: NO_x – 0.001 lb./MMBtu in compliance limit of 0.25 lb./MMBtu

Applicable Standards and Limits

A. Control of Visible Emissions

Combustion Turbines and Duct Burners

COMAR 26.11.09.05 - Visible Emissions.

A. Fuel Burning Equipment.

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

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

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

Compliance Demonstration

Combustion Turbines only

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The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year.

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

- (a) inspect combustion control system and combustion turbine operations,
- (b) perform all necessary adjustments and/or repairs to the combustion turbine 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 combustion turbine.

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

- (1) Maintain records of the results of visual emissions observations performed;
- (2) Maintain a record of the maintenance performed that relates to combustion performance; and
- (3) Maintain an operation manual and maintenance plan on site.

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

[Reference: COMAR 26.11.03.06C]

B. Control of Sulfur Oxides

Combustion Turbines only

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:

- (b) Distillate fuel oil, 0.3 percent."**

40 CFR 60 Subpart GG: §60.333 - Standard for sulfur dioxide.

"On and after the date on which the performance test required to be conducted by Sec. 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:

- (a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas**

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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 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).” *(1)

CPCN #8840 issued on October 25, 2000, amended December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, which limits sulfur in fuel content to 0.2 percent by weight.

***Note (1):** Compliance with the more stringent CPCN distillate fuel oil sulfur content of 0.2% will be used to determine compliance with the COMAR and NSPS Subpart GG fuel oil sulfur requirements.

Compliance Demonstration

“Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).”[Reference:40 CFR 60 Subpart A – §60.8]

40 CFR 60 Subpart GG - §60.335– Test methods and procedures:

(b)(10) “If the owner or operator is required under §60.334(i)(1) or (3) to periodically determine the sulfur content of the fuel combusted in the turbine, a minimum of three fuel samples shall be collected during the performance test. Analyze the samples for the total sulfur content of the fuel using: (i) For liquid fuels, ASTM D129–00, D2622–98, D4294–02, D1266–98, D5453–00 or D1552–01 (all of which are incorporated by reference, see §60.17);

(b)(11) The fuel analyses required under paragraphs (b)(9) and (b)(10) of this section may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.”

40 CFR 60 Subpart GG § 60.334 - Monitoring of operations.

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.”

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“(i) The frequency of determining the *sulfur* and *nitrogen* content of the fuel shall be as follows:

“(3) Custom schedules. Notwithstanding the requirements of paragraph (i)(2) of this section, operators or fuel vendors may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs (i)(3)(i) and (i)(3)(ii) of this section, custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in § 60.333.”

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

Sulfur Monitoring.

- (a) Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-80; ASTM D3031-81; ASTM D3246-81; and ASTM D4084-82 as referenced in 40 CFR 60.335(b)(2).
 - (b) Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows variability in the fuel sulfur content, and indicated consistent compliance with 40 CFR Section 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - (c) If after the monitoring required in item 2(b) above, or herein, the sulfur content of the fuel shows little variability and calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emissions limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - (d) Should any sulfur analysis as required in items 2(b) or 2(c) above indicate noncompliance with 40 CFR 60.333, the owner or operator shall notify the EPA Regional Office Air Division of each excess emissions and the custom schedule shall be re-examined by the EPA. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- (3) If there is a change in fuel supply, the owner or operator must notify the EPA of such change for re-examination of this custom schedule. A substantial

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change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined."

[Reference: Letter dated October 6, 2000 from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

Permittee shall maintain records of the all fuel oil certifications indicating that the oil complies with the limitations on **sulfur** and nitrogen content and make them available to the Department upon request. The Permittee or its fuel supplier or designated agent shall determine compliance with the sulfur content standard in § 60.333(b) as follows: ASTM D 2880-71, 78, or 96 shall be used to determine the sulfur content of liquid fuels.

Certification may include:

- i) a fuel supplier certification consisting of the name of the fuel oil supplier and a statement from the supplier that the fuel oil complies with specifications for fuel oil in accordance with Subpart GG - §60.335;
- ii) a record of fuel analysis by the Maryland State Comptroller's Office; and
- iii) A certified statement signed by the authorized representative of the facility, stating that the records of fuel supplier certifications submitted represent all of the fuel oil combusted.

[Reference: 40 CFR 60 Subpart GG - §60.335, & COMAR 26.11.03.06C]

(4) Record of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of three years or consistent with applicable State Permit **[5 years]**, and be available for inspection by personnel of federal, state and local air pollution control agencies."

[Reference: Letter dated October 6, 2000 from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

The Permittee shall submit fuel certification report upon request by MDE. The Permittee shall maintain records of the results of the fuel sulfur content monitoring on site and shall make those records available to or submit them to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

C. Control of Nitrogen Oxides

Combustion Turbines only

40 CFR Subpart GG - Standard for nitrogen oxides

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§60.332(a). “On and after the date on which the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

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

$$\text{STD} = 0.0150 (14.4)/Y + F$$

Where:

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

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

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

(3) The use of F in paragraphs (a)(1) and (2) of this section is optional. That is, the owner or operator may choose to apply a NO_x allowance for fuel-bound nitrogen and determine the appropriate F-value in accordance with paragraph (a)(4) of this section or may accept an F-value of zero.

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

Fuel-bound nitrogen (% by weight)	F: (NO _x % by volume)
N<0.015	0
0.015<N<0.1	0.04(N)
0.1<N<0.25	0.004+0.0067(N-0.1)
N>0.25	0.005

Where:

N=the nitrogen content of the fuel (percent by weight), or
 Manufacturers may develop and submit to EPA custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for

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use by the Administrator before the initial performance test required by § 60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.”

“(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.”

Note (2): Based on CPCN application when taking no allowance for fuel bound nitrogen, the STD value nitrogen oxide emissions from each combustion turbine shall be limited to the following: 201 ppm (firing natural gas); and 199 ppm (firing No. 2 fuel oil).

COMAR 26.11.09.08G(2) - Control of NO_x Emissions for Major Stationary Sources - “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.”

Capacity factor means either: (1) the ratio of a unit's actual annual electric output (expressed in MWe-hr.) to the unit's nameplate capacity times 8760 hours, or (2) the ratio of a unit's annual heat input (in million British thermal units or equivalent units of measure) to the unit's maximum design heat input (in million British thermal units per hour or equivalent units of measure) times 8,760 hours.
[40 CFR 72.2]

Note (3): *The Permittee shall comply with the more restrictive emission rate limits stipulated by the State regulation, COMAR 26.11.09.08G(2), which supersedes the federal regulation, §60.332 (a)(2).*

Duct Burners only

40 CFR §60.44b- Federal Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units - NO_x emissions from each duct burner shall be limited to **0.2 lbs./MM Btu.**

COMAR 26.11.09.08D(1)(b)- Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MM Btu per hour and Greater than 100 MM Btu/hr. - All other fuel burning equipment with a rated heat input

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capacity of less than 250 MM Btu per hour shall meet the NO_x emission rates set forth in §B(1)(c) of this regulation.

§B(1)(c): Emission Standards in Pounds of NO_x per MM Btu of heat input.

<u>Fuel</u>	<u>Tangential-Fired</u>	<u>Wall-Fired</u>
Gas Only	0.20	0.20
Gas/Oil	0.25	0.25

Compliance Demonstration

Combustion Turbines only

40 CFR 60 Subpart GG - §60.335 – Test methods and procedures:

“(a) The owner or operator shall conduct the performance tests required in Sec. 60.8, using either (1) EPA Method 20, (2) ASTM D6522-00 (incorporated by reference, see Sec. 60.17), or (3) EPA Method 7E and either EPA Method 3 or 3A in appendix A to this part, to determine NO_x and diluent concentration.”

40 CFR 60 Subpart GG - §60.335:

(b) “The owner or operator shall determine compliance with the applicable nitrogen oxides emission limitation in §60.332 and shall meet the performance test requirements of §60.8 in accordance with the requirements of Part (b) of this Section (§60.335).”

Subsequent Testing: After the initial compliance test required under 40 CFR 60 Subpart GG, the owner or operator shall perform a stack test for each CGT unit once during the 5-year operating permit term, and not less than one year prior to expiration of the permit. All testing shall be completed, and the results submitted at least one year prior to the expiration of the operating permit.

[Reference: COMAR 26.11.03.06C]

40 CFR 60 Subpart GG § 60.334 - Monitoring of operations.

(h) The owner or operator of any stationary gas turbine subject to the provisions of this subpart:

“(4) For any turbine that commenced construction, reconstruction or modification after October 3, 1977, but before July 8, 2004, and for which a custom fuel monitoring schedule has previously been approved, the owner or operator may, without submitting a special petition to the Administrator, continue monitoring on this schedule.”

(1) Nitrogen Oxides. “Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel fired in the gas turbine.”

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[Reference: Letter dated October 6, 2000 from EPA to Trigen Services of College Park: Approval for Custom Monitoring]

The Permittee shall measure the NO_x content of the flue gases from each CGT 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. This requirement is waived for any combustion turbine and duct burner that operates less than 400 hours during a calendar quarter. The Permittee shall maintain a record of the results of the quarterly NO_x sampling analyses for a period of at least five years. **[Reference: COMAR 26.11.03.06C]**

COMAR General Administrative Provisions – Testing and Monitoring.

The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to testing and a notice of intent to test at least 14 days prior to the scheduled test date. The Permittee shall submit the results of stack tests in a final report within 45 days from test completion. **[Reference: COMAR 26.11.01.04A]**

The Permittee shall report the results of the quarterly NO_x sampling analyses to the Department within 30 days of the end of each calendar quarter. **[Reference: COMAR 26.11.03.06C]**

{**Note:** Only required when CTs are firing No. 2 fuel oil}

D. Operational Limit

Combustion Turbines only

CPCN #8840 issued on October 25, 2000 and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015 states that the Permittee shall burn only natural gas or No. 2 fuel oil in the combustion turbines.

The combustion turbines shall be operated and maintained in accordance with the facility's combustion turbine operation and maintenance (O & M) plan, which can also include service agreements with outside maintenance contractors. A copy of the plan must be maintained on site and made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Duct Burners only

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CPCN #8840 issued on October 25, 2000 and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015 states that the Permittee shall burn only natural gas in the duct burners.

Compliance Demonstration

The Permittee shall sample the NO_x emissions after any maintenance swap out or replacement of turbine drives including, rebuilds, replacements of shafts, turbine impellers, casings, liners, etc. Once installed, the replacement/rebuilt combustion turbines exhaust shall be tested for NO_x emissions by calibrated handheld analyzer twice per operating day, such that readings occur approximately 12 hours apart. Reading shall take place for a minimum of 7 operating days and with the CT operating at a minimum of 90% of its capacity. Records of the sampling results shall be maintained on site and made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**

Combustion Turbines only

The Permittee shall calculate the monthly usage of No. 2 fuel oil and natural gas burned in the combustion turbines and shall calculate the usage for each 12-month rolling period. The calculations shall be completed within 30 days of the end of each calendar month. **[Reference: COMAR 26.11.03.06C]**

Duct Burners only

The Permittee shall calculate the monthly usage of natural gas burned in the duct burners and calculate the usage for each 12-month rolling period. The calculations shall be completed within 30 days of the end of each calendar month. **[Reference: COMAR 26.11.03.06C]**

The Permittee shall maintain the following records on-site and make them available to the Department upon request:

- (1) Records of monthly No. 2 fuel oil and natural gas usage in the combustion turbines;
- (2) Records of the monthly natural gas usage burned in the duct burners; and
- (3) The Permittee shall maintain records of the occurrences and duration of any startup, shutdown and/or malfunctions in the operation of the combustion turbines
- (4) Maintenance records, including but not limited to the following:
 - (a) Copy of operation and maintenance plan and/or copy maintenance contracts with outside contractors.
 - (b) Records of work performed and why, i.e., scheduled maintenance or equipment failure, etc.

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- (5) Records of any maintenance swap out or replacement of turbine drives including, rebuilds, replacements of shafts, turbine impellers, casings, liners, etc. Records shall also include the serial number(s) of the turbine casing, shaft, combustion liner and/or transition to be installed.

[Reference: COMAR 26.11.03.06C]

Maintenance swap out/replacement of CTs: The Permittee shall notify the Department 1 week prior to any turbine maintenance swap out or replacement as specified above. Prior notification is not required for general maintenance or repairs, including replacement of turbine shafts, impellers, liners, etc.

Notification shall include the reason for replacement, i.e., turbine failure, etc. Notification shall also include the serial number(s) of the turbine casing, shaft, combustion liner and/or transition to be installed.

The Permittee shall provide the Department with the results of NO_x sampling, which is required after any rebuild, maintenance swap out or replacement of a turbine. The results shall be submitted within 14 days after the sampling.

[Reference: COMAR 26.11.03.06C]

Emissions Unit(s): Combined Heat and Power Plant (CHP)

Plant-Wide Emissions Cap

EU #001-7 & EU #001-8: Two-(2) GE Model PGT-10B/1, natural gas/No.2 fuel oil-fired 11.2 MW Combustion Turbines (CTs), each equipped with a 126 MMBtu/hr. duct burner and heat recovery steam generator (HRSG).

EU #001-2: One 157 MMBtu/hr. Union Iron dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired boiler

EU #001-4: One 117 MMBtu/hr. Union Iron dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired boiler

EU #001-6: One 780 kW diesel fueled Caterpillar generator.

EU #001-9: One 95 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Wabash mobile boiler [5-1665] Located in the Central Heating Plant.

Compliance Status

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Based on the first quarter 2020 report was received on April 13, 2020 via Email, the results of the quarterly NO_x emissions sampling by the handheld instrument (the Bacharach) and demonstrate that CHP emissions on a rolling 12-month basis are in compliance with emission caps. Rolling 12-month emissions for this quarter demonstrate compliance as follows:

	VOC (TPY)	NO_x (TPY)	CO (TPY)	SO₂ (TPY)	PM₁₀ (TPY)
Emission Cap	19.8	177	130	33.5	19
Jan. 2020	1.04	89.16	4.10	2.51	5.29
Feb. 2020	1.07	87.58	4.37	2.46	5.24
March 2020	1.19	82.99	5.35	2.24	5.15

Applicable Standards and Limits

CPCN #8840 issued on October 25, 2000, amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015 - To avoid triggering Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NA-NSR), the CHP air emission sources are to be operated under a plant-wide emissions cap with 12-month rolling emissions totals for each pollutant not to exceed:

- NO_x: 177 tons/year
- CO: 130 tons/year
- PM: 18.7 tons/year
- PM₁₀: 19 tons/year
- SO_x : 33.5 tons/year
- VOC: 19.8 tons/year

The Permittee shall conduct emission calculations of NO_x, CO, PM₁₀, SO_x and VOC on a monthly basis for sources included in the plant-wide emissions cap. These calculations shall include the current month total emissions and the twelve-month rolling total emissions for NO_x, CO, PM₁₀, SO_x and VOC.

Compliance Demonstration

- (a) The owner or operator shall conduct performance stack tests for NO_x, CO, PM₁₀, SO_x and VOC emissions, for each CHP boiler once during the 5-year operating permit term, and not less than one year prior to expiration of the permit. The tests shall be conducted in accordance with the reference methods and procedures of 40 CFR 60 Appendix A.
- (b) The Permittee shall provide the Department at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. The

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Permittee shall provide the Department with two copies of the test protocols at least 30 days prior to any scheduled performance tests

(c) The Permittee shall submit a written report of the results of each performance test before the close of business on the 60th day following the completion of the performance test. Results of most current stack test shall be used to determine compliance operational limitations and the Plant-wide Emissions Cap.

(d) Results of most current stack test shall be used to determine emissions factors used to determine compliance with the Plant-wide Emissions Cap. **[Reference: COMAR 26.11.01.04 & COMAR 26.11.03.06C]**

The Permittee shall conduct emission calculations of NO_x, CO, PM₁₀, SO_x and VOC on a monthly basis for sources included in the plant-wide emissions cap. These calculations shall include the current month total emissions and the twelve-month rolling total emissions for NO_x, CO, PM₁₀, SO_x and VOC. Results of most current stack test(s) and/or sampling, as applicable, shall be used to determine compliance operational limitations and the Plant-wide Emissions Cap.

[Reference: COMAR 26.11.03.06C and CPCN #8840 issued on October 25, 2000 and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015]

The Permittee shall maintain records of the emissions calculations on-site for at least five years and shall make them available to the Department upon request. The Permittee shall report results of the CHP emission calculations (NO_x, CO, PM₁₀, SO_x, and VOC) to the Department within 30 days at the end of each calendar quarter. **[Reference: COMAR 26.11.03.06C]**

Emissions Unit(s): EU #001-9 thru EU #001-11

EU #001-9: One 95 MM Btu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Wabash mobile boiler **[5-1665]**

EU #001-10: One 6.695 MM Btu/hr. No.2 fuel fired Cleaver Brooks boiler **[4-1980]**

EU #001-11: One 8.4 MM Btu/hr. No.2 fuel fired Cleaver Brooks boiler **[4-1974]**
Located in the Central Heating Plant.

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Compliance Status

Applicable Standards and Limits

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

A. Fuel Burning Equipment.

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

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

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

Compliance Demonstration

(1) The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year.

The Permittee shall perform the following if emissions are visible:

- (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 boilers.

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

The Permittee shall maintain:

- (1) Records of the results of visual emissions observations performed for a period of at least 5 years; and
- (2) Records of maintenance performed on the boiler that relates to combustion performance for a period of at least five years.

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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."
[Reference: **COMAR 26.11.03.06C**]

NSPS applies to Reg No. 5-1665 only

B. Control of Particulate Matter

40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units with a heat input capacity less than 100 MMBtu/hr. but greater than 10 MMBtu/hr. for construction began after June 9, 1989.

§60.43c - Standard for particulate matter (PM).

(c) On and after the date on which the initial performance test is completed or required to be completed under §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/h) 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.

Note: Compliance with the "No Visible Emissions" requirements of COMAR 26.11.09.05A(2) and (3) will be used to show compliance with this NSPS standard.

Compliance Demonstration

§60.45c - Compliance and performance test methods and procedures for particulate matter.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f)."....

C. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**"

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NSPS applies to Reg. 5-1665 only

40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units with a heat input capacity less than 100 MMBtu/hr. but greater than 10 MMBtu/hr for construction began after June 9, 1989.

§60.42c - Standard for sulfur dioxide (SO₂).

(d) On and after the date on which the initial performance test is completed or required to be completed under §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 from oil; 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), (3), or (4) 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.

Note: The monitoring, record keeping, and reporting requirements under NSPS Subpart Dc will be used to demonstrate compliance with COMAR 26.11.09.07A and NSPS sulfur in fuel standards.

Compliance Demonstration

NSPS applies to Reg. 5-1665 only

§60.44c - Compliance and performance test methods and procedures for sulfur dioxide.

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable.

§60.46c - Emission monitoring for sulfur dioxide.

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with

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the SO₂ standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

§60.48c - Reporting and recordkeeping requirements.

“(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content or maximum sulfur content of the oil.”

§60.48c - Reporting and recordkeeping requirements.

(e)(11) The report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(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.

COMAR: The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation and retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation for at least 5 years. The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]

D. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

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“(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

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

COMAR 26.11.09.08E. 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
- (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.

Compliance Demonstration

The Permittee shall perform a combustion analysis for each installation at least once each year. **[Reference: COMAR 26.11.09.08E(2)]**

The Permittee shall optimize combustion based on the combustion analysis.

[Reference: COMAR 26.11.09.08E(2)]

The Permittee shall maintain on site records of the following:

- (1) Results of the annual combustion analysis; and
- (2) Training program attendance for each operator.

[Reference: COMAR 26.11.09.08E(5)]

The Permittee shall submit:

- (1) The results of combustion analysis to the Department and the EPA upon request. **[Reference: COMAR 26.11.09.08E(3)]**
- (2) A record of the training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)]**

E. Operational Limit

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

[Reference: COMAR 26.11.02.09A & Permit to Construct Nos. 033-0010-4-01974 & -4-1980]

The Permittee shall burn primarily natural gas and No. 2 fuel oil during periods of curtailment unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels, .

[Reference: COMAR 26.11.02.09A & Permit to Construct Nos. 033-0010-5-1665]

Compliance Demonstration

The Permittee shall maintain records of the quantity and types of fuel burned.

[Reference: COMAR 26.11.02.19C(1)(c)]

The Permittee shall submit records of the quantity and type of fuels burn with the annual emissions certification report. See permit condition 8 of Section III.

Emissions Unit(s): EU #001-2 & EU #001-4 & EU #001-9

EU #001-2: One 157 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler **[5-0256]**

EU #001-4: One 117 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler **[5-0159]**

EU #001-9: One (1) Wabash dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired mobile boiler rated at 95 MMBtu/hr. **[5-1665]**

Compliance Status

Stack test was conducted March 1-7, 2019, on the Central Heating Plant boilers. The results are as follows:

Units	Results, NO _x , lb./MMBtu	Limit, NO _x
EU #001-2	Natural gas: 0.09	0.25 lb./MMBtu
	Fuel oil: 0.16	
EU #001-4	Natural gas: 0.11	
	Fuel oil: 0.14	

Boiler control upgrades to both boilers were completed between 11/28/2018 and 1/16/2019. A SCADA system was installed with both units being implemented into the new system. With the inclusion of the new SCADA system, a more efficient tuning system was realized as the controls were now embedded into the digital scheme. A new VFD was installed on EU #001-4 boiler forced air draft fan for better and more efficient

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control of the FD fan. The oil guns were rebuilt with new internal parts and new nozzles specifically manufactured for burning No. 2 fuel oil.

Applicable Standards and Limits

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

A. Fuel Burning Equipment.

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

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

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

Compliance Demonstration

(1) The Permittee shall 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 12-minute period at least once for each 168 hours that the combustion turbines burn oil. If oil is burned for less than 100 hours in a calendar year, this requirement is waived for that calendar year.

The Permittee shall perform the following if emissions are visible:

- (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 boilers.

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

The Permittee shall maintain:

- (1) Records of the results of visual emissions observations for a period of at least 5 years; and
- (2) Records of maintenance performed that relates to combustion performance for a period of at least five years.

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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." [Reference: COMAR 26.11.03.06C]

Applies when using NO. 2 fuel oil

B. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**"

Compliance Demonstration

The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation for at least 5 years. The Permittee shall submit fuel certification report if requested by MDE . [Reference: COMAR 26.11.03.06C]

C. Control of Nitrogen Oxides

COMAR 26.11.09.08D(1)(b)- Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 MM Btu per hour and Greater than 100 MM Btu/hr. - All other fuel burning equipment with a rated heat input capacity of less than 250 MM Btu per hour shall meet the NOx emission rates set forth in §B(1)(c) of this regulation.

§B(1)(c): Emission Standards in Pounds of NOx per MM Btu of heat input.

<u>Fuel</u>	<u>Tangential-Fired</u>	<u>Wall-Fired</u>
Gas Only	0.20	0.20
Gas/Oil	0.25	0.25

OR

Alternate Operating Scenario.

COMAR 26.11.09.08G(1) - Control of NOx Emissions

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 in writing;
- B. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform and optimize combustion at least once annually;

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- C. Maintain the results of the combustion analysis at the site for at least two years and make these results available to the Department and the EPA upon request;
- D. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- E. Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

Note: *if the capacity factor for these units in any calendar year is less than 15 percent, the boilers are subject to the NO_x requirements of COMAR 26.11.09.08G(1).*

Compliance Demonstration

(1) The Permittee shall measure the NO_x content of the flue gases from each boiler for a 15-minute period once a calendar quarter. 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. This requirement is waived for any boiler that operates less than 400 hours during a calendar quarter;

Conditions (2) & (3) apply if applicable to Alternate Scenario:

(2) For fuel-burning equipment that operates more than 500 hours during a calendar year, the Permittee shall perform and optimize combustion at least once annually.

(3) The Permittee shall maintain a record of the operator training for each operator at the site and make these records available to the Department upon request.

[Reference: COMAR 26.11.03.06C & COMAR 26.11.09.08G(1)]

(1) The Permittee shall maintain a record of the quarterly NO_x sampling analyses for a period of at least five years.

(2) The Permittee shall maintain the results of any annual combustion analyses required to be performed at the site for at least five years and make them available to the Department upon request.

(3) The Permittee shall maintain a record of the operator training for each operator at the site and make these records available to the Department upon request. The Permittee shall report results of the quarterly NO_x sampling analyses to the Department within 30 days of the end of each calendar quarter.

[Reference: COMAR 26.11.03.06C]

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D. Operational Limit
For EU #001-6 only

CPCN #8840 issued on October 25, 2000, and amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015, states that the Permittee shall burn only natural gas or No. 2 fuel oil in the boilers.

Compliance Demonstration

The Permittee shall maintain monthly records of the type and amount of fuels fired for each boiler. The Permittee maintain monthly records of the type and amount of fuels fired for each boiler. **[Reference: COMAR 26.11.03.06C]**

Emissions Unit(s): EU #001-2 & EU #001-4, EU #001-9 and EU #360-3 (MACT)

EU #001-2: One 157 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler **[5-0256]**

EU #001-4: One 117 MMBtu/hr. dual (NG/ No.2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Union Iron Boiler **[5-0159]**

These boilers are subject to the requirements for existing oil-fired boilers greater than or equal to 10 million Btu/hr. heat input.

EU #001-9: One 95 MMBtu/hr. dual (NG/No. 2 fuel oil during curtailment/supply interruptions/startup/testing/training only) fired Wabash mobile boiler. **[5-1665]**
This boiler is not subject to the MACT requirements if defined as gas fired boiler .
[Reference: §63.11195 - Are any boilers not subject to this subpart? (e) A gas-fired boiler as defined in this subpart]

"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."

"Period of gas curtailment or supply interruption means a period of time during which the supply of gaseous fuel to an affected boiler is restricted or 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 due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility"

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EU #001-10: One Cleaver Brooks No. 2 oil fired mobile boiler rated at 6.695 MMBtu/hr. [4-1980]. Located in the Central Heating Plant.

EU #360-3: One Cleaver Brooks No. 2 oil fired mobile boiler rated at 8.4 MMBtu/hr. [4-1974]. Located throughout the campus.

These boilers are subject to the requirements of new oil-fired boiler greater than 5 MMBtu/hr. heat input.

Compliance Status

Tune-up on **EU #001-2** and **EU #001-4** for natural gas was complete in December 2018, while tuning for oil was completed in January 2019.

EU #001-2 reported two (2) Deviations: Deviation start: 12/17/2018, 11:30 End: 12/17/2018, 11:35; Deviation starts: 12/19/2018, 14:34 End: 12/19/2018, 14:40. An opacity greater than 40% was observed during maintenance and tuning of **EU #001-2**. The number 2 burner on **EU #001-2** was experiencing anomalies on light off. The Permittee adjusted atomizing steam pressure and flow, main line fuel pressure, fuel regulator pressure, low flow regulator floe, verified fuel guns assembled correctly, adjusted air/fuel ratios, fuel flow via computer program and steam pressure via computer program.

EU #360-3: The Permittee submitted notification on 1/26/2018.

Applicable Standards and Limits

Control of HAPs:

40 CFR Part 63, Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

§63.11194 - What is the affected source of this subpart?

(a) This subpart applies to each new, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all **existing** industrial, commercial, and institutional boilers within a subcategory, as listed in §63.11200 and defined in §63.11237, located at an area source.

(2) The affected source of this subpart is each **new** or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.

§63.11196 - What are my compliance dates?

(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

(1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management practice standard no later than **March 21, 2014**.

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(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than **March 21, 2014**.

(c) If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

§63.11201 - What standards must I meet?

(b) You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Table 2 to this subpart satisfies the energy assessment requirement. A facility that operates under an energy management program established through energy management systems compatible with ISO 50001, that includes the affected units, also satisfies the energy assessment requirement.

(d) These standards apply at all times the affected boiler is operating, except during periods of startup and shutdown as defined in § 63.11237, during which time you must comply only with Table 2 to this subpart.

Table 2 to Subpart JJJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices

As stated in § 63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

Your boiler is in this subcategory.	You must meet the following.
5. New oil-fired boilers with heat input capacity greater than 5 MMBtu/hr. that do not meet the definition of seasonal boiler or limited-use boiler, or use an oxygen trim system that maintains an optimum air-to-fuel ratio	Conduct a tune-up of the boiler biennially as specified in §63.11223.

§63.11210 - What are my initial compliance requirements and by what date must I conduct them?

(c) For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is

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specified in § 63.11196 and according to the applicable provisions in § 63.7(a)(2), except as provided in paragraph (j) of this section.

(g) For new or reconstructed affected boilers that have applicable work practice standards or management practices, you are not required to complete an initial performance tune-up, but you are required to complete the applicable biennial, or 5-year tune-up as specified in §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

§63.11223 - How do I demonstrate continuous compliance with the work practice and management practice standards?

(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a performance tune-up according to paragraph (b) of this section and keep records as required in § 63.11225(c) to demonstrate continuous compliance. You must conduct the tune-up while 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.

(b) Except as specified in paragraphs (c) through (f) of this section, you must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up. For a new or reconstructed boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new or reconstructed boiler.

Compliance Demonstration

(1) The Permittee must conduct a biennial performance tune-up no more than 25 months after the previous tune-up. For a new boiler, the first biennial tune-up must be no later than 25 months after the initial startup of the new boiler.

[Reference: 40 CFR §63.11223(b)]

(2) The Permittee must conduct a biennial or every 5-yr 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, but you must inspect each burner at least once every 36 months).
- (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.

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- (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 inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection.
- (d) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.
- (e) Measure the concentrations in the effluent stream of CO 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 using a portable CO analyzer.
- (f) Maintain onsite and submit, if requested by the Department, a biennial 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 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 tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
- (g) 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.

[Reference: 40 CFR §63.11223(b)(1) through (7)]

The Permittee must operate and maintain, at all times, any affected source, including air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **[Reference: 40 CFR §63.11205(a)]**

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(1) The Permittee must keep a copy of each notification and report that is submitted to comply with 40 CFR Part 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted as required in 40 CFR §63.10(b)(2)(xiv). **[Reference: 40 CFR §63.11225(c)(1)]**

(2) The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 as follows:

- a. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.
- b. Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

[Reference 40 CFR §63.11225(c)(2)]

(3) The Permittee must keep records of the occurrence and duration of each malfunction of the boiler or of associated air pollution control equipment and monitoring equipment. **[Reference: 40 CFR §63.11225(c)(4)]**

(4) The Permittee must keep records of actions taken during periods of malfunctions to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler to its normal or usual manner of operation.

[Reference: 40 CFR §63.11225(c)(5)]

(5) The Permittee must keep the records in a form suitable and readily available for expeditious review. Each record must be kept for five (5) years following the date of each recorded action. The records must remain on site for at least two (2) years after the date of each recorded action. **[Reference: 40 CFR §63.11225(d)]**

(1) The Permittee must submit all applicable notifications in 40 CFR §63.7(b), §63.8(e), §63.9(b) through (e), and §63.9(g) and (h). **[Reference: 40 CFR §63.11225(a)(1)]**

(2) The Permittee must submit the Notification of Compliance Status in accordance with 40 CFR §63.9(h) no later than 120 days after the applicable compliance date specified in 40 CFR §63.11196. In addition to the information

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required in 40 CFR §63.9(h)(2), your notification must include the following certifications of compliance, as applicable, and signed by a responsible official:

- a. "This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler."
- b. "This facility has had an energy assessment performed according to §63.11214(c)."

[Reference: 40 CFR §63.11225(a)(4)(i), and (4)(ii), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]

(3) By March 1 of each affected calendar year, the Permittee must prepare a biennial compliance certification report for the previous two (2) calendar years containing the information specified in 40 CFR §63.11225(b). The Permittee must submit the report by March 15 if the Permittee had any instance described by 40 CFR §63.11225(b)(3). The compliance report must contain the following information:

- a. Company name and address.
- b. Statement by a responsible official certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and requirements of 40 CFR 63, Subpart JJJJJJ.
- c. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, time periods during which the deviations occurred, and the corrective actions taken.

[Reference: 40 CFR §63.11225(b)(1) through (3)]

Emissions Unit(s): Misc. Small Boilers, Hot Water heaters and furnaces

Building	MDE Registration No.	Capacity
Ritchie Coliseum	5-0945 & 5-0946 - EU #004-1 & EU #004-2	(2) PVI natural gas, 1.0 MMBtu/hr.
Eppley Recreation Center	5-0947 - EU #068-1	PVI natural gas, 1.4 MMBtu/hr.
	5-1680 - EU #068-7	Therm natural gas, 2.0 MMBtu/hr.
	5-0949 - EU #068-3	Natural gas, 2.45 MMBtu/hr.
	5-1457 - EU #068-4 5-1458 - EU #068-5	(2) Therm natural gas, 2.0 MMBtu/hr.

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Adele H. Stamp Student Union	5-1030 – EU #163-1 5-1029 – EU #163-2	(2) natural gas , 1.2 MMBtu/hr.
Maryland Stadium	5-0856 – EU #361-1	Jarco natural gas, 1.2 MMBtu/hr.
	5-0854 – EU #361-2	(2) Jarco natural gas,
	5-0855 – EU #361-3	1.4 MMBtu/hr.
Technology Advancement Program	5-0944 – EU #387-1 5-0943 – EU #387-2	(2) Cleaver Brooks, 3.0 MMBtu/hr.
SCUB III	5-0942 – EU #392-1 5-0941 – EU #392-2	(2) Lochinvar natural gas, 1.44 MMBtu/hr.
Research Greenhouse	5-1032 – EU #398-1 5-1033 - EU #398-2	(2) Hurst natural gas, 8.4 MMBtu/hr.
Biosciences Research	5-1226 – EU #413-1 5-1227 - EU #413-2 5-1228 - EU #413-3	(3) Fulton natural gas, 1.26 MMBtu/hr.
Chesapeake Building	5-1664-1 & -2 – EU #338-1 & 2	(2) Trane natural gas, 1 MMBtu/hr.
SCUB II	5-1635 – EU #067-1 5-1636 – EU #067-2	(2) PVI natural gas, 2.01 MMBtu/hr.
Laboratory of Physical Science	5-1662 – EU #796-3 & EU #796-4	(2) HB Smith natural gas, 2.403 MMBtu/hr.
Gudelsky Vet Science	5-0980 – EU #795-1	Cleaver Brooks natural gas, 2.1 MMBtu/hr.
	5-0978 – EU #795-2	(2) Cleaver Brooks
	5-0979 – EU #795-3	natural gas, 8.4 MMBtu/hr.
Maryland Fire and Rescue Institute	5-1674 – EU #199-2	Weil McLain natural gas, 1.38 MMBtu/hr.

Compliance Status

During the December 20, 2017, inspection, no Method 9 observation was performed. Boilers/heaters/furnaces were likely operating intermittently to maintain building temperature or hot water temperature. The small boilers/hot water heaters/furnaces operate primarily on natural gas. The fuel supplier provided specification sheet for fuel oil indicating 15 ppm sulfur. Fuel use records are maintained and used in the ECR calculations.

Applicable Standards and Limits

A. Control of Visible Emissions

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COMAR 26.11.09.05 - Visible Emissions.

A. Fuel Burning Equipment.

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

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

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

Compliance Demonstration

The Permittee shall keep the equipment in good working order and properly maintained as to assure compliance with the visible emissions requirements. The Permittee shall maintain records of the results of visual emission observations for a period of at least 5 years. The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [Reference: COMAR 26.11.03.06C]

When using No. 2 fuel oil

B. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**"

Compliance Demonstration

The Permittee shall obtain fuel supplier certifications stating the fuel oil is in compliance with the sulfur content in the fuel limitation. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitations for at least five years. The Permittee shall submit fuel certification report if requested by MDE. [Reference: COMAR 26.11.03.06C]

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C. Control of Nitrogen Oxides

COMAR 26.11.09.08B(5) - Operator Training.

“(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

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

COMAR 26.11.09.08F. - Requirements for Space Heaters.

“(1) 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) 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.”

Compliance Demonstration

The Permittee shall develop and maintain an operating and maintenance plan to minimize NO_x emissions . [Reference: **COMAR 26.11.09.08F(1)(b)**]

The Permittee shall maintain the following for a period of at least 5 years: (1) records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan; (2) record of training program attendance for each operator; (3) an operations manual and preventative maintenance plan; and (4) records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: **COMAR 26.11.09.08F & COMAR 26.11.03.06C**]

The Permittee shall record a training program attendance for each operator to the Department upon request. [Reference: **COMAR 26.11.03.06C**]

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Emissions Unit(s): Natural gas-fired and diesel-fired generators

- EU #001-6:** diesel fired Caterpillar: 1,109 bhp [9-1083]
- EU #036-1:** natural gas Caterpillar: 780 kWe / 1,106 bhp [9-0898]
- EU #039-1:** diesel fired Stamford: 400 kWe [9-1184]
- EU #068-6:** diesel fired Caterpillar: 500 kWe [9-1176]
- EU #142-2:** diesel fired Cummins: 775 kWe / 1,155 bhp [9-0900]
- EU #228-1:** diesel fired John Deere: 617 bhp [9-1583].
- EU #360-1 & EU #360-2:** (2) diesel fired Caterpillar: 500 kWe / 745 bhp [9-1178 & 9-1179]
- EU#386-1:** diesel fired Katolight: 500 kWe [9-1177]
- EU #392-3:** diesel fired Detroit: 835 kWe [9-1180]
- EU #398-3:** diesel fired Detroit: 450 kWe / 670 bhp [9-1191]
- EU #405-1 & EU #405-2:** (2) diesel fired Detroit: 700 kWe [9-1181 & 9-1182]
- EU #413-4:** diesel fired Detroit: 835 kWe / 1,120 bhp [9-1248]
- EU #413-5:** diesel fired Detroit: 835 kWe / 1,120 bhp [9-1183]
- EU #795-4:** diesel fired Caterpillar: 890 bhp [9-1175]

NSPS Subpart IIII		
Building	MDE Registration No.	Capacity
Atlantic Building	9-1537 - EU #224-1	Caterpillar 2,220 bhp
School of Public Health	9-1536 - EU #225-1	Kohler 401 kWe / 538 bhp
Cole Fieldhouse	9-1555 - EU #162-1	1,194 bhp
Laboratory of Physical Science	9-1546 - EU #796-1 & 9-1547 - EU #796-2	(2) 1,111 kWe / 1.490 bhp
Patuxent Building	9-1545 - EU #010-1	685 bhp
Mobile	9-1517 - EU #810-1	500 kWe / 757 bhp
Physical Science Complex	9-1408 - EU #415-1	1,250 kWe / 2,200 bhp
SCUB V	9-1296 - EU #418-1	600 kWe / 918 bhp
Pocomoke Building	9-1419 - EU #007-1	Generac 500 kWe / 757 bhp
E.A Fernandez Idea Factory	9-1583 - EU #228-1	John Deere: 617-hp

NSPS Subpart JJJJ		
Building	MDE Registration No.	Capacity

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A. James Clark Hall	9-1495 - EU #429-1 & 9-1496 - EU #429-2	(2) Caterpillar 750 kWe
Brendan Iribe Center for Computer Science and Innovation	9-1516 - EU #432-1	Kohler 400 kWe / 536 bhp
Prince Frederick Hall	9-1420 - EU #425-1	Cummins 395 kWe / 530 bhp
Oakland Hall	9-1387 - EU #419-1	450 kWe / 701 bhp
Satellite Central Utility Building II	9-1568 - EU #067-3	Caterpillar 636 bhp
Microbiology Building	9-1569 - EU #231-1	550 bhp
Yahentamitsi Dining Facility	9-1578 - EU #436-1	Kohler 684-hp

Compliance Status

During the December 20, 2017, inspection, no Method 9 observation was performed. No emergency generators were operating. Emergency generators are exercised between 5:00 am and 6:00 am on Monday and/or Tuesday mornings for about 30 minutes. This occurs automatically. Monthly generator inspection occur at various times throughout the month as is demand maintenance (service if the generator is not functioning properly).
EU #398-3: diesel fired Detroit: 450 kWe / 670 bhp [9-1191]: total runtime is 435.1 hours.
EU #810-1: diesel fired Kohler: 500 kWe [9-1517]: total runtime 53 hours 45 mins
EU #429-1: natural gas fired Caterpillar: 750 kWe [9-1495] total run time: 58.0 hours.
EU #360-1: diesel fired Caterpillar: 500 kWe / 745 bhp [9-1178]: total runtime: 462 hours.
EU #360-2: diesel fired Caterpillar: 500 kWe / 745 bhp [9-1179]: total runtime: 407 hours;

Applicable Standards and Limits

A. Control of Visible Emissions

COMAR 26.11.09.05 - Visible Emissions.

E. Stationary Internal Combustion Engine Powered Equipment.

(2) **Emissions During Idle Mode.** A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(3) **Emissions During Operating Mode.** A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(4) **Exceptions.**

(a) Section E(2) of this regulation does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

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(b) Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(i) Engines that are idled continuously when not in service: 30 minutes;

(ii) All other engines: 15 minutes.

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

Compliance Demonstration

The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. The Permittee shall maintain on site an operations manual and preventive maintenance plan that relates to combustion performance and maintain records of preventive maintenance 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.” [Reference: **COMAR 26.11.03.06C**]

B. Control of Sulfur Oxides

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: **(b) Distillate fuel oil, 0.3 percent.**”

Compliance Demonstration

The Permittee shall obtain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation. The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitations for at least five years. The Permittee shall submit fuel certification report if requested by MDE. [Reference: **COMAR 26.11.03.06C**]

C. Control of Nitrogen Oxides

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

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

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

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- (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
- (c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
- (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request."

Compliance Demonstration

The Permittee shall perform a combustion analysis and optimize combustion at least annually for any engine that operates more than 500 hours during a calendar year. The Permittee shall monitor the hours of operation of each installation and perform a combustion analysis at least once each year for any engine that exceeds 500 hours per year of operation and optimize combustion based on the analysis. The Permittee shall maintain the following for a period of at least 5 years:

- (1) the results of the combustion analysis at the site and make these results available to the Department and the EPA upon request;
- (2) record of training program attendance for each operator;
- (3) records of hour of operation on a monthly basis for all engines. At the end of each month, the Permittee shall calculate the total hours for the calendar year.

The Permittee shall submit the following:

- (1) a list of operator training operator attendance to the Department upon request; and (2) results of the combustion analysis to the Department upon request whenever an engine operates more than 500 hours in a calendar year.

[Reference: COMAR 26.11.03.06C]

D. Operational Limit

Applies only to **EU #001-6** (Reg. No. 9-1083): One 1109 hp (780 kW) diesel fueled Caterpillar generator

CPCN #8840 issued on October 25, 2000, amended on December 15, 2003, April 24, 2013, July 30, 2014, and July 1, 2015 which states that emissions from the emergency generator shall be *designed* not to exceed the following:

NO_x: 24.8 lb./hour
CO: 6.6 lb./hour

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PM: 0.5 lb./hour
 PM₁₀: 0.5 lb./hour
 SO_x: 0.235 lb./hour
 VOC: 0.7 lb./hour

Compliance Demonstration

The Permittee shall operate and maintain each generator in accordance with the manufacturer recommendations and/or the facility's preventive maintenance plan. The Permittee shall maintain on site an operations manual and preventive maintenance plan that relates to combustion performance and maintain records of preventive maintenance that relates to combustion performance. [Reference: COMAR 26.11.03.06C]

Emissions Unit(s): See Table below: NSPS Subpart IIII

NSPS Subpart IIII		
Building	MDE Registration No.	Capacity
Atlantic Building	9-1537 - EU #224-1	2220 bhp
School of Public Health	9-1536 - EU #225-1	401 kWe / 538 bhp
Cole Fieldhouse	9-1555 – EU #162-1	1,194 bhp
Laboratory of Physical Science	9-1546 - EU #796-1 & 9-1547 - EU #796-2	(2) 1,000 kWe / 1.490 bhp
Patuxent Building	9-1545 - EU #010-1	685 bhp
Mobile	9-1517 - EU #810-1	500 kWe / 757 bhp
Physical Science Complex	9-1408 – EU #415-1	1,250 kWe /2,200 bhp
SCUB V	9-1296 - EU #418-1	600 kWe / 918 bhp
Pocomoke Building	9-1419 - EU #007-1	500 kWe / 757 bhp
E.A Fernandez Idea Factory	9-1583 –EU #228-1	617-hp

Miscellaneous Diesel-fueled Generators subject to NSPS 40 CFR 60 Subpart IIII.

Note: Requirements below apply to diesel engines manufactured after April 1, 2006 with a piston displacement less than 10 liters per cylinder.

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Compliance Status

During the December 20, 2017, inspection, the review of spreadsheet documenting the month operating hours for each generator was observed. Ex: EU #413-4: 35.3 hours (2017 to date); 4.3 hours in January for routine testing and exercising. The spreadsheet also indicated when the fuel oil tank for each generator is filled. Ex.: in January 2017, 200-gallon of fuel oil was added to the tank for EU #413-4.

Applicable Standards and Limits

Subpart III—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

§60.4200 - Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is: 2007 or later, for engines that are not fire pump engines.

§60.4205 - What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in § 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

Note: The Permittee shall satisfy the requirements above and §60.4202 by purchasing and installing engines certified at EPA Tier 2 or better.

§60.4207 - What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

Compliance Demonstration

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§60.4209 - What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in § 60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in § 60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

§60.4211 - What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR part 1068, as they apply to you.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

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(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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.
 - (ii)-(iii) [Reserved]
- (3) Emergency stationary ICE may be operated 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 and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand

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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.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

- (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
- (ii)-(iii) [Reserved]

- (1) The Permittee shall the following maintain records on site for at least five (5) years and they shall be made available to the Department upon request:
 - (a) The operating hours for each generator,
 - (b) Monthly records of fuel use,
 - (c) Reason for generator operation (i.e., maintenance or operational testing, power outage, etc.),
 - (d) A copy of the generator's and operations and maintenance manual, and records of maintenance and repair performed.
- (2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):

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- (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).
- (3) For any NSPS emergency diesel generator the 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.

[Reference: PTC 033-0010-9-1408, COMAR 26.11.03.06C, & 40 CFR 63, Subpart III]

§60.4214 - What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

- (i) Company name and address where the engine is located.
- (ii) Date of the report and beginning and ending dates of the reporting period.
- (iii) Engine site rating and model year.
- (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v)-(vi) [Reserved]

(vii) Hours spent for operation for the purposes specified in § 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

Emissions Unit(s): See Table below: NSPS Subpart JJJJ

NSPS Subpart JJJJ		
Building	MDE Registration No.	Capacity

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A. James Clark Hall	9-1495 - EU #429-1 & 9-1496 - EU #429-2	(2) Caterpillar 750 kWe
Brendan Iribe Center for Computer Science and Innovation	9-1516 - EU #432-1	Kohler 400 kWe / 536 bhp
Prince Frederick Hall	9-1420 - EU #425-1	Cummins 395 kWe / 530 bhp
Oakland Hall	9-1387 - EU #419-1	450 kWe / 701 bhp
SCUB II	9-1568 - EU #067-3	Caterpillar 636 bhp
Microbiology Building	9-1569 - EU #231-1	550 bhp
Yahentamitsi Dining Facility	9-1578 - EU #436-1	684-bhp

Spark Ignition (SI) Generators subject to NSPS 40 CFR 60 Subpart JJJJ

Compliance Status

Stack test conducted on June 14, 2018, on EU #419-1 for NO_x, CO and VOC compliance demonstration. The results are as follows:

Pollutant	Results, ppmvd @15% O ₂	Standard, ppmvd @15% O ₂
NO _x	34.63	160
CO	127.56	540
VOC	<0.09	86

Applicable Standards and Limits

40 CFR 60 Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

§60.4233 - What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

Emission Standards for Owners and Operators

Table 1 to Subpart JJJJ of Part 60 - NO_x, CO, and VOC Emission Standards for..., and Stationary Emergency Engines >25 HP

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards ^a					
			g/HP-hr.			ppmvd at 15% O ₂		
			NO _x	CO	VOC ^d	NO _x	CO	VOC ^d

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Emergency	HP≥130		2.0	4.0	1.0	160	540	86
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a Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr. or ppmvd at 15 percent O₂.

b Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.

c The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_x+ HC.

d For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

§60.4234 - How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in § 60.4233 over the entire life of the engine.

Compliance Demonstration

For EU §419-1 only

§60.4244 – What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

§60.4237- What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.

§60.4243 - What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008 and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

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(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subpart A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in § 60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.

(d) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (d)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may

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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.

(ii)-(iii) [Reserved]

(3) Emergency stationary ICE may be operated 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 and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of this section, the 50 hours per 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.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

(ii) [Reserved]

(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and

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operators are required to conduct a performance test to demonstrate compliance with the emission standards of § 60.4233.

Notification, Reports, and Records for Owners and Operators

§60.4245 - What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- (a)** Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
- (1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
- (b)** For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
- (c)** Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission

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standards in § 60.4231 must submit an initial notification as required in § 60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in § 60.4244 within 60 days after the test has been completed.

(e) If you own or operate an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4243(d)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4243(d)(3)(i), you must submit an annual report according to the requirements in paragraphs (e)(1) through (3) of this section.

- (1) The report must contain the following information:
 - (i) Company name and address where the engine is located.
 - (ii) Date of the report and beginning and ending dates of the reporting period.
 - (iii) Engine site rating and model year.
 - (iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - (v) Hours operated for the purposes specified in § 60.4243(d)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 60.4243(d)(2)(ii) and (iii).
 - (vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 60.4243(d)(2)(ii) and (iii).
 - (vii) Hours spent for operation for the purposes specified in § 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in § 60.4243(d)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

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(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 60.4.

COMPLIANCE SCHEDULE

University of Maryland is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Not Applicable.

TITLE VI – OZONE DEPLETING SUBSTANCES

University of Maryland shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F.

SECTION 112(r) – ACCIDENTAL RELEASE

University of Maryland is not subject to the requirements of Section 112(r)

PERMIT SHIELD

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

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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. 53 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;

[For Areas III and IV]

The affected fuel burning units 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.

[For Distillate Fuel Oil]

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. 66 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:

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- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

- (3) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;
- (4) ✓ 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;
- (5) No. 33 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

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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:

- (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.
- (6) ✓ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
- (7) ✓ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;

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- (8) ✓ Confection cookers where the products are edible and intended for human consumption;
- (9) ✓ Die casting machines;
- (10) ✓ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (11) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (12) ✓ 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;
- (13) ✓ 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;
- (14) Containers, reservoirs, or tanks used exclusively for:
- (a) ✓ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;
- (b) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
- (c) No. 7 Storage of lubricating oils;
- (d) No. 91 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater;
- (e) No. 60 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

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- (f) No. 4 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
- (g) No. 50 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;
- (15) Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;
- (16) 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;

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- (17) 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;
- (18) 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;
- (19) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (20) Firing and testing of military weapons and explosives;
- (21) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (22) Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;
- (23) Laboratory fume hoods and vents;
-

STATE ONLY ENFORCEABLE REQUIREMENTS

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

1. Applicable Regulations:

COMAR 26.11.06.08 - Nuisance.

"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be

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construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.”

COMAR 26.11.06.09 - Odors.

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

COMAR 26.11.15.05, which requires that the Permittee implement “Best Available Control Technology for Toxics” (T – BACT) to control emissions of toxic air pollutants.

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

2. Record Keeping and Reporting:

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

- (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or
- (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

3. Specific Requirements for Charbroilers Only

Equipment Unit	Registration Number
Grills – Holstein (2)	8-0425
Grills – Belson (10)	8-0425
EU #162-2	8-8435
EU #163-3	8-0424

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SENECA BUILDING, SUITE #0103
4716 PONTIAC STREET
COLLEGE PARK, MARYLAND 20742-6511
PERMIT NO. 24-033-0010
PART 70 OPERATING PERMIT FACT SHEET**

EU #251-1	8-0329
EU #360-4	8-0227
EU #360-5	8-0228
EU #360-6	8-0229
EU #166-1	8-0438
EU #436-2	8-0432
EU #436-3	8-0432
EU #436-4	8-0432
EU #436-5	8-0432
EU #436-6	8-0432

- (a) If the charbroiler is located within 300 feet of any property line of any habitable dwelling:
- (1) The Permittee shall limit visible emissions to 10 percent opacity or less.
 - (2) The Permittee shall install a control device approved by the Department, if the installation cannot meet the 10 percent opacity limit without controls.
- (b) If the charbroiler is located more than 300 feet from the property line of any habitable dwelling, the Permittee shall limit visible emissions to 30 percent opacity or less.