



Maryland
Department of
the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary
Adam Ortiz, Deputy Secretary

Dr. Hazoor Khan, Engineer
Environmental Compliance Branch
U.S. Army Garrison, Aberdeen Proving Ground
4303 Rodman Road
Aberdeen Proving Ground, MD 21005-5001

APR 15 2026

Dear Dr. Khan:

Re: Renewal Part 70/ Title V Operating Permit 24-025-0082 Edgewood Area

Enclosed, please find the Renewal Part 70/Title V Operating Permit and Fact Sheet for the U.S. Army Garrison, Aberdeen Proving Ground, Edgewood Area. The Permit will expire on October 31, 2030.

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

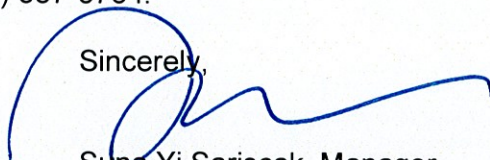
If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant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

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

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

If you have any questions, please feel free to contact Mr. Schuyler Fearins at schuyler.fearins@maryland.gov or (410) 537-3764.

Sincerely,


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

SYS/jm

Enclosures

cc: EPA Region III (w/encl)

Wes Moore
Governor

State of



Serena McIlwain
Secretary

Maryland

DEPARTMENT OF THE ENVIRONMENT

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

Construction Permit

Part 70
 Operating Permit

PERMIT NO. 24-025-0082

DATE ISSUED APR 15 2026

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE October 31, 2030

LEGAL OWNER & ADDRESS

APG-Edgewood Area
U.S. Army Garrison Aberdeen Proving Ground
6504 Rodman Road, Building 4304
Aberdeen Proving Ground, MD 21005-5001
Attn: Dr. Hazoor B. Khan

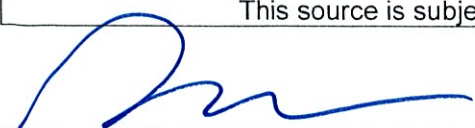
SITE

APG-Edgewood Area
Aberdeen Proving Ground, MD 21010
Harford County
AI # 20603

SOURCE DESCRIPTION

Renewal Part 70 Permit to Operate for one military facility.

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


Program Manager


Director, Air and Radiation Administration

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION I	SOURCE IDENTIFICATION	4
1.	DESCRIPTION OF FACILITY	4
2.	FACILITY INVENTORY LIST	4
SECTION II	GENERAL CONDITIONS	9
1.	DEFINITIONS	9
2.	ACRONYMS	9
3.	EFFECTIVE DATE	10
4.	PERMIT EXPIRATION	10
5.	PERMIT RENEWAL	10
6.	CONFIDENTIAL INFORMATION	11
7.	PERMIT ACTIONS	11
8.	PERMIT AVAILABILITY	12
9.	REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA	12
10.	TRANSFER OF PERMIT	12
11.	REVISION OF PART 70 PERMITS – GENERAL CONDITIONS	12
12.	SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS	13
13.	MINOR PERMIT MODIFICATIONS	14
14.	ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS	17
15.	OFF-PERMIT CHANGES TO THIS SOURCE	19
16.	ON-PERMIT CHANGES TO SOURCES	20
17.	FEE PAYMENT	22
18.	REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS	22
19.	CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION	23
20.	PROPERTY RIGHTS	24
21.	SEVERABILITY	24
22.	INSPECTION AND ENTRY	24
23.	DUTY TO PROVIDE INFORMATION	25
24.	COMPLIANCE REQUIREMENTS	25
25.	CREDIBLE EVIDENCE	26
26.	NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE	26
27.	CIRCUMVENTION	26
28.	PERMIT SHIELD	26
29.	ALTERNATE OPERATING SCENARIOS	27
SECTION III	PLANT WIDE CONDITIONS	28
1.	PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION	28
2.	OPEN BURNING	28
3.	AIR POLLUTION EPISODE	28
4.	REPORT OF EXCESS EMISSIONS AND DEVIATIONS	28
5.	ACCIDENTAL RELEASE PROVISIONS	29
6.	GENERAL TESTING REQUIREMENTS	30
7.	EMISSIONS TEST METHODS	30
8.	EMISSIONS CERTIFICATION REPORT	30
9.	COMPLIANCE CERTIFICATION REPORT	32
10.	CERTIFICATION BY RESPONSIBLE OFFICIAL	32
11.	SAMPLING AND EMISSIONS TESTING RECORD KEEPING	33

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

12.	GENERAL RECORDKEEPING.....	33
13.	GENERAL CONFORMITY.....	34
14.	ASBESTOS PROVISIONS	34
15.	OZONE DEPLETING REGULATIONS.....	34
16.	ACID RAIN PERMIT	35
SECTION IV	PLANT SPECIFIC CONDITIONS.....	36
SECTION V	INSIGNIFICANT ACTIVITIES	114
SECTION VI	STATE-ONLY ENFORCEABLE CONDITIONS	119

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

The Aberdeen Proving Ground (APG) is a military installation for the testing of military equipment, laboratory research, and military training. APG is divided into two distinct areas: the northern Aberdeen Area and the southern Edgewood Area. This Part 70 permit application is for the Edgewood Area of APG. The regulated activities which produce air emissions at the Edgewood Area include space heating and NSPS boilers, generators, gasoline storage tanks, and surface coating activities. The applicable primary SIC code is 9711.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
Space Heating Boilers			
E1464-A01	4-0626	One (1) Burnham No. 2 fuel oil fired boiler rated at 1.62 million Btu per hour heat input	2008
E1958-A01	4-0660	One(1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.092 million Btu per hour heat input	1988
E2188-A01	4-0627	One(1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 4.184 million Btu per hour heat input	1987
E4301-A02	4-0559	One (1) Burnham No. 2 fuel oil fired boiler rated at 9.614 million Btu per hour heat input.	1990
E4516-A03 & A04	4-0716	Two (2) Weil-McClain No. 2 fuel oil fired boilers each rated at 1.34 MMBtu/hr.	2015
E5664-A01	4-0545	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.120 million Btu per hour heat input	1996
E5828-A01 & A02	4-0669 & 4-0670	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 8.162 million Btu per hour heat input	2004
E5840-A01	4-0650	One (1) Renzor No. 2 fuel oil fired boiler rated at 1.25 million Btu per hour heat input	2003
E3832-A02	4-0684	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.040 million Btu per hour heat input	2010

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E4585-A02	4-0681	One (1) Smith No. 2 fuel oil fired boiler rated at 1.292 MMBtu/hr.	2010
E3312-A04 & A05	4-0571 & 4-0572	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 33.476 million Btu per hour heat input	1988
E3312-A01	4-0570	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 33.476 million Btu per hour heat input	1987
26-E1930-A03	4-0725	One (1) Smith Cast Iron No. 2 fuel oil fired boiler rated at 2.02 MMBtu/hr. heat input.	2019
E2100-A03, A04 & A05	5-0329 thru 5-0331	Three (3) Aerco natural gas/No. 2 fuel oil fired boilers each rated at 3.0 million Btu per hour heat input	2012
E1574-A01	5-0311	One (1) Cleaver Brooks natural gas/No. 2 fuel oil fired boiler rated at 3.350 million Btu per hour heat input	2010
E1574-A02 & A03	5-0312 & 5-0313	Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 6.124 million Btu per hour heat input	2010
E2100-A06 & A07	5-0316 & 5-0317	Two (2) Aerco Benchmark BMK-3.0 LN GWB natural gas fired boiler rated at 3.0 MMBtu/hr.	2010
E3844-A01 & A02	4-0700 & 4-0701	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 2.00 million Btu per hour heat input	2012
E2194-A02	4-0695	One (1) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 1.68 million Btu per hour heat input.	2012
26-E4160-A04	4-0723	One (1) Cleaver Brooks No. 2 oil fired boiler rated at 9.95 MMBtu/hr. heat input.	2019
26-E4301-A04	4-0732	One (1) Unilux No. 2 oil fired boiler rated at 9.24 MMBtu/hr. heat input.	2023
E1950-A01	4-0665	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.102 MMBtu/hr. heat input	1993
E2100-A01 & A02	5-0322 & 5-0333	Two (2) Cleaver Brooks gas/No. 2 fuel oil fired boilers each rated at 3.5 million Btu per hour heat input	2012
E5126-A06	4-0460	One (1) Cleaver Brooks No. 2 oil fired boiler rated at 37.4 MMBtu/hr. heat input	1985

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
NSPS Boilers			
26-E4160-A02	4-0506	One (1) No. 2 oil fired boiler rated at 12.55-MMBtu/hr. heat input	1994
26-E4160-A03	4-0523	One (1) No. 2 oil fired boiler rated at 12.55-MMBtu/hr. heat input	1990
26-E5126-A01 & A02	4-0543 & 4-0544	Two (2) Cleaver Brooks natural gas/No. 2 oil fired boilers each rated at 73.1-MMBtu/hr. heat input	1997
E2901-A04 thru A07	5-0306	Four (4) natural gas/No. 2 fuel oil fired boilers, each rated at 33.5 million Bu per hour heat input utilizing low NO _x burners located at MRICD.	2011
E2851-A01 thru A03	5-0347 thru 5-0349	Three (3) Superior natural gas/No.2 fuel oil fired boilers, each rated at 14.7 MMBtu/hr.	2018
E2851-A04 & A05	5-0350 & 5-0351	Two (2) English natural gas/No. 2 fuel oil fired boilers each rated at 14.7-MMBtu/hr.	2018
Spray Booths			
E4301	6-0497 & 6-0498	Two (2) spray paint booths for R&D painting on plastic, metal and wood parts/pieces. PTC issued 4/16/2014.	2014
Emergency Generators			
E2100-A01	9-0453	One (1) Kohler diesel fired emergency generator sets, each rated at 940 hp (600-kW).	2012
E2800-A01	9-0448	One (1) Kohler diesel fired emergency generator set rated at 1881 hp	2012
E2390-A01	9-0465	One (1) Cummins diesel fired emergency generator set rated at 680 hp	2005
E2400-A01	9-0463	One (1) Katolight diesel fired emergency generator set rated at 1207 hp	2008
E3510-A01	9-0378	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp	2009
E3549-A01	9-0232	One (1) Cummins diesel fired emergency generator set rated at 1135 hp	1989
E3835-A01	9-0341	One (1) Cummins diesel fired emergency generator set rated at 900 hp	1991

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E5146-A01	9-0339	One (1) Cummins diesel fired emergency generator set rated at 500 hp	2004
E5126-A11	9-0293	One (1) Cummins diesel fired emergency generator set rated at 635 hp	1996
E3566-A01	9-0464	One (1) MTU Onsite Energy diesel fired emergency generator set rated at 635 hp (400 kW)	2013
E3150-A01 thru A03	9-0278 thru 9-0280	Three (3) Cummins diesel fired emergency generator sets each rated at 1350 hp	1996
E3300-A01	9-0231	One (1) Cummins diesel fired emergency generator rated at 1490 hp	1990
E5100-A01	9-0379	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp (1500 kW).	2009
E1457-A01	9-0355	One (1) Detroit diesel fired emergency generator set rated at 2200 hp	2005
E3400-A01	9-0356	One (1) Caterpillar diesel fired emergency generator set rated at 1816 hp (1250 kW)	2005
E3401-A01	9-0380	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.	2009
E2901-A01 thru A03	9-0402	Three (3) Caterpillar or equivalent Tier 1 diesel fired emergency generator sets each rated at 3673 hp (2500 kW) located at MRICD	2009
E3844-A03	9-0442	One (1) Kohler diesel fired emergency generator set rated at 1341 hp (1000 kW)	2012
E2851-A06 & A07	9-0485 & 9-0486	Two (2) Cummins diesel fired emergency generators each rated at 1280 kW (2923 hp).	2018
E3462-A01	9-0484	One Kohler emergency generator rated at 755 hp (500 kW) to be located outside building E4520 to support the Chemical Demilitarization Training Facility (CDTF). PTC issued 3/14/2014.	2014
E3857	9-0506	One (1) Kohler diesel fired emergency generator rated at 2923 hp.	2005

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E3150	9-0545	One Cummins diesel-fired emergency generator set rated at 2682 horsepower.	2024
Cogeneration Unit (CHP)			
E5126-A10	5-0366	One (1) cogeneration unit consisting of a dual fired combustion turbine driven generator with a heat recovery steam generator (HRSG) to provide steam and approximately 7.9 MW of electric power.	2016

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

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

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO ₂	Sulfur Dioxide

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

3. EFFECTIVE DATE

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

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

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

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

5. PERMIT RENEWAL

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

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

7. PERMIT ACTIONS

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

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

- d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

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

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

[COMAR 26.11.03.20B]

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

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

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

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

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

- a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.
- b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

- e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.
- f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.
- g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.
- h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

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

- a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:
 - (1) The change is not a Title I modification;
 - (2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;
 - (3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;
 - (4) The change does not violate an applicable requirement of the Clean Air Act;
 - (5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

- (6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;
 - (7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and
 - (8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.
- b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:
- (1) A description of the proposed change;
 - (2) The date on which the change is proposed to be made;
 - (3) Any change in emissions resulting from the change, including the pollutants emitted;
 - (4) Any new applicable requirement of the Clean Air Act; and
 - (5) Any permit term or condition that would no longer apply.
- c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.
- d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.
- e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.
- f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

17. FEE PAYMENT

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

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

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

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

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

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

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

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

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

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

24. COMPLIANCE REQUIREMENTS

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

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

25. CREDIBLE EVIDENCE

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

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

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

27. CIRCUMVENTION

[COMAR 26.11.01.06]

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

28. PERMIT SHIELD

[COMAR 26.11.03.23]

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

- a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

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

2. OPEN BURNING

[COMAR 26.11.07]

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

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

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

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

5. ACCIDENTAL RELEASE PROVISIONS

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

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

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

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

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

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

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

8. EMISSIONS CERTIFICATION REPORT

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

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

- a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

- b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:
 - (1) Familiar with each source for which the certifications forms are submitted, and
 - (2) Responsible for the accuracy of the emissions information;
- c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:
 - (1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
 - (2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
 - (3) Amounts, types and analyses of all fuels used;
 - (4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;
 - (5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:
 - (a) Significant maintenance performed,
 - (b) Malfunctions and downtime, and
 - (c) Episodes of reduced efficiency of all equipment;
 - (6) Limitations on source operation or any work practice standards that significantly affect emissions; and
 - (7) Other relevant information as required by the Department.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

9. COMPLIANCE CERTIFICATION REPORT

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

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

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

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

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

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

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

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

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

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

These records and support information shall include:

- a. All calibration and maintenance records;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

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

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

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

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

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

- a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.
- b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

- d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
- f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION IV PLANT SPECIFIC CONDITIONS

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

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

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

Table IV – INDEX	
Table	Emission Unit Category
IV - 1	Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed BEFORE June 4, 2010
IV - 2	Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed AFTER June 4, 2010
IV - 3	Space Heating Boilers rated GREATER THAN 5 MMBtu/hr. but LESS THAN 10 MMBtu/hr.
IV - 4	Space Heating Boilers rated GREATER THAN 10 MMBtu/hr. constructed BEFORE June 4, 2010
IV - 5	NSPS Boilers
IV - 6	Emergency generators exempt from NSPS
IV - 7	NSPS emergency generators
IV - 8	Paint Spray Booths
IV - 9	CHP and HRSG

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1	
1.0	<p><u>Emissions Unit Number(s): Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed BEFORE June 4, 2010.</u></p> <p><u>E1464-A01</u>: One (1) Burnham No. 2 fuel oil fired boiler rated at 1.62 million Btu per hour heat input.</p> <p><u>E1950-A01</u>: One (1) Burnham No. 2 fuel oil fired boiler rated at 2.102 million Btu per hour heat input.</p> <p><u>E1958-A01</u>: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.092 million Btu per hour heat input.</p> <p><u>E2188-A01</u>: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 4.184 million Btu per hour heat input.</p> <p><u>E5664-A01</u>: One (1) Burnham No. 2 fuel oil fired boiler rated at 2.120 million Btu per hour heat input.</p> <p><u>E3832-A02</u>: One (1) Burnham No. 2 fuel oil fired boiler rated at 2.040 million Btu per hour heat input.</p> <p><u>E4585-A02</u>: One (1) Smith No. 2 fuel oil fired boiler rated at 1.292 million Btu per hour heat input.</p> <p><u>E5840-E01</u>: One (1) Reznor No. 2 fuel oil fired boiler rated at 1.73 MMBtu/hr.</p>
1.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity." 2. COMAR 26.1.09.05A(3), <u>Exceptions</u>. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1

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), Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:

- a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
- b. Develop an operating and maintenance plan to minimize NOx 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.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1

	<p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none"> 1. The Permittee 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. [Reference: 40 CFR §63.11201(b)] 2. The Permittee shall conduct an initial tune-up as specified in 40 CFR §63.11214 and conduct a tune-up of the boilers every 5 years as specified in 40 CFR §63.11223. [Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2] 3. These standards apply at all times, except during periods of startup and shutdown. [Reference: 40 CFR §63.11201(d)] 4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than 180 days after the compliance date that is specified in 40 CFR §63.11196 and according to the applicable provisions in 40 CFR §63.7(a)(2). [Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]
<p>1.2</p>	<p><u>Testing Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>See Monitoring Requirements</p> <p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none"> 1. The Permittee must conduct a performance tune-up every 5 years and no more than 61 months after the previous tune-up. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 1

months prior to the tune-up. **[Reference: 40 CFR §63.11223(a) and (e)]**

2. The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified below:
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
 - e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.
 - f. Maintain onsite and submit, if requested, a report containing the following information:
 - i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler.
 - ii. A description of any corrective actions taken as a part of the tune-up of the boiler.
 - iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit.
 - 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) and (e)]**

1.3 Monitoring Requirements:

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1	
	<p>A. <u>Visible Emissions Limitations</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>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> <p>D. <u>Boiler MACT Tune-up</u></p> <p>At all times the Permittee must operate and maintain 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 you 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>
1.4	<p><u>Record Keeping Requirements:</u> NOTE: All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control Visible Emissions</u></p> <p>The Permittee shall maintain operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1

performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C].

B. Control of Sulfur Oxide Emissions

The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: COMAR 26.11.09.07C].

C. Control of Nitrogen Oxide Emissions

The Permittee shall maintain:

- a. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)]
- b. Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)]
- c. An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)]

D. Boiler MACT Tune-up

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 and §63.11223 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)]

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 1

	<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. The records may be kept off site for the remaining three (3) years. [Reference: 40 CFR §63.11225(d)]</p>
1.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08F(1)(e)]</p> <p>D. <u>Boiler MACT Tune-up</u></p> <p>1. The Permittee must submit all applicable notifications in §63.7(b), §63.8(e) and (f), §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 an Initial Notification, as specified in 40 CFR §63.9(b)(2), no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. [Reference: 40 CFR §63.11225(a)(2)]</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 1

3. The Permittee must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §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. The notification must be submitted electronically using 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 40 CFR 63, Subpart JJJJJJ, is not available in CEDRI at the time the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. [Reference: 40 CFR §63.11225(a)(4)(i), (4)(ii), and (4)(vi), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]

4. The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
 - d. 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) and 40 CFR §63.10(a)(5)]

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 2	
2.0	<p><u>Emissions Unit Number(s): Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed AFTER June 4, 2010.</u></p> <p><u>E2100-A03, A04, & A05</u>: Three (3) Aerco natural gas/No. 2 fuel oil fired boilers each rated at 3.0 million Btu per hour heat input.</p> <p><u>E1574-A01</u>: One (1) Cleaver Brooks natural gas/No. 2 fuel oil fired boiler rated at 3.350 million Btu per hour heat input.</p> <p><u>E2100-A01 & A02</u>: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 3.50 million Btu per hour heat input.</p> <p><u>E3844-A01 & A02</u>: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 2.00 million Btu per hour heat input.</p> <p><u>E2194-A02</u>: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 1.68 million Btu per hour heat input.</p> <p><u>E2100-A06 & A07</u>: Two (2) Aerco Benchmark BMK-3.0 LN GWB natural gas/No. 2 fuel oil fired boiler rated at 3.0 MMBtu/hr.</p> <p><u>E4516-A03 & A04</u>: Two (2) Weil-McLain No. 2 fuel oil fired boilers each rated at 1.34 MMBtu/hr.</p> <p><u>E1930-A03</u>: One (1) Smith Cast Iron No. 2 fuel oil fired boiler rated at 2.02 MMBtu/hr. heat input.</p>
2.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity." 2. COMAR 26.1.09.05A(3), <u>Exceptions</u>. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 2

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), Sulfur Content Limitations for Fuel.

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:

- a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
- b. Develop an operating and maintenance plan to minimize NOx 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.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 2

	<p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none"> 1. The Permittee 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. [Reference: 40 CFR §63.11201(b)] 2. The Permittee shall conduct a tune-up of the boilers every 5 years as specified in 40 CFR §63.11223. [Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2] 3. These standards apply at all times, except during periods of startup and shutdown. [Reference: 40 CFR §63.11201(d)] 4. The Permittee must achieve compliance with the provisions of 40 CFR Part 63 Subpart JJJJJJ upon startup of your affected source. [Reference: 40 CFR §63.11196(c)] 5. The Permittee, so long as the boilers combust only ultra-low-sulfur liquid fuel as defined in §63.11237, is not subject to the PM emission limit in 40 CFR Part 63 Subpart JJJJJJ Table 1 providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 CFR §63.11237, you must conduct a performance test within 60 days of burning the new fuel. [Reference: 40 CFR §63.11210(f)] 6. The Permittee is not required to complete an initial performance tune-up, but the Permittee is required to complete the applicable 5-year tune-up as specified in 40 CFR §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [Reference: 40 CFR §63.11210(g)]
2.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 2

C. Control of Nitrogen Oxides

See Monitoring Requirements

D. Boiler MACT Tune-up

1. The Permittee must conduct a performance tune-up every 5 years and no more than 61 months after the previous tune-up. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [Reference: 40 CFR §63.11223(a) and (e)]
2. The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified below:
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
 - e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.
 - f. Maintain onsite and submit, if requested, a report containing the following information:
 - i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 2	
	<p>high-fire or typical operating load, before and after the tune-up of the boiler.</p> <ul style="list-style-type: none"> ii. A description of any corrective actions taken as a part of the tune-up of the boiler. iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit. <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) and (e)]</p>
2.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>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> <p>D. <u>Boiler MACT Tune-up</u></p> <p>At all times the Permittee must operate and maintain 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 you 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</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 2	
	<p>maintenance records, and inspection of the source. [Reference: 40 CFR §63.11205(a)]</p>
2.4	<p><u>Record Keeping Requirements:</u> NOTE: All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control Visible Emissions</u></p> <p>The Permittee shall maintain operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>The Permittee shall maintain:</p> <ul style="list-style-type: none"> a. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)] b. Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)] c. An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)] <p>D. <u>Boiler MACT Tune-up</u></p> <ul style="list-style-type: none"> 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 and §63.11223 as follows:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 2

	<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> <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. The records may be kept off site for the remaining three (3) years. [Reference: 40 CFR §63.11225(d)]</p>
2.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 2

The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08F(1)(e)]**

D. Boiler MACT Tune-up

1. The Permittee must submit all applicable notifications in §63.7(b), §63.8(e) and (f), §63.9(b) through (e), and §63.9(g) and (h). **[Reference: 40 CFR §63.11225(a)(1)]**
2. The Permittee must submit an Initial Notification, as specified in 40 CFR §63.9(b)(2), no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. **[Reference: 40 CFR §63.11225(a)(2)]**
3. The Permittee must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §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. The notification must be submitted electronically using 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 40 CFR 63, Subpart JJJJJJ, is not available in CEDRI at the time the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. **[Reference: 40 CFR §63.11225(a)(4)(i), (4)(ii), and (4)(vi), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]**
4. The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 2	
	<p>c. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."</p> <p>d. 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) and 40 CFR §63.10(a)(5)]</p>

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

Table IV – 3	
3.0	<p><u>Emissions Unit Number(s): Space Heating Boilers rated GREATER THAN 5 MMBtu/hr. but LESS THAN 10 MMBtu/hr.</u></p> <p><u>E4301-A02</u>: One (1) Burnham No. 2 fuel oil fired boilers each rated at 9.614 MMBtu/hr.</p> <p><u>E5828-A01 & A02</u>: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 8.162 MMBtu/hr.</p> <p><u>E1574-A02 & A03</u>: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 6.124 MMBtu/hr.</p> <p><u>E4301-A04</u>: One (1) Unilux No. 2 oil fired boiler rated at 9.24 MMBtu/hr. heat input.</p> <p><u>E4160-A04</u>: One (1) Cleaver Brooks No. 2 oil fired boiler rated at 9.95 MMBtu/hr. heat input</p>
3.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p>1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 3

than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

2. COMAR 26.1.09.05A(3), Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
 - a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NOx emissions based on the recommendations of equipment vendors and other information including the source’s operating and maintenance experience;

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 3

- 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.

D. Boiler MACT Tune-up

1. The Permittee 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. [Reference: 40 CFR §63.11201(b)]
2. The Permittee shall Conduct an initial tune-up as specified in §63.11214 and conduct a tune-up of the boiler biennially as specified in §63.11223. [Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]
3. These standards apply at all times, except during periods of startup and shutdown. [Reference: 40 CFR §63.11201(d)]

Conditions 4 applies to EU E4301-A02 & A03, E5825-A01 & A02, and E4225-A01, A02, & A03 only.

4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2).. [Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]

Condition 5 thru 7 applies to EU E1574-A02 & A03 only.

5. The Permittee must achieve compliance with the provisions of 40 CFR Part 63 Subpart JJJJJJ upon startup of your affected source. [Reference: 40 CFR §63.11196(c)]
6. The Permittee, so long as the boilers combust only ultra-low-sulfur liquid fuel as defined in §63.11237, is not subject to the PM emission limit in 40 CFR Part 63 Subpart JJJJJJ Table 1 providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 3	
	<p>liquid fuel or gaseous fuels as defined in 40 CFR §63.11237, you must conduct a performance test within 60 days of burning the new fuel. [Reference: 40 CFR §63.11210(f)]</p> <p>7. The Permittee is not required to complete an initial performance tune-up, but the Permittee is required to complete the applicable 5-year tune-up as specified in 40 CFR §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. [Reference: 40 CFR §63.11210(g)]</p>
3.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p style="padding-left: 40px;">See Monitoring Requirements</p> <p>D. <u>Boiler MACT Tune-up</u></p> <p>1. The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [Reference: 40 CFR §63.11223(a)]</p> <p>2. The Permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified below:</p> <ol style="list-style-type: none"> a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection). b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 3	
	<p>be consistent with the manufacturer's specifications, if available.</p> <ul style="list-style-type: none"> c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection). d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer. f. Maintain onsite and submit, if requested, a report containing the following information: <ul style="list-style-type: none"> i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler. ii. A description of any corrective actions taken as a part of the tune-up of the boiler. iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit. 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)]
3.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 3

	<p>The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>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> <p>D. <u>Boiler MACT Tune-up</u></p> <p>At all times the Permittee must operate and maintain 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 you 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>
<p>3.4</p>	<p><u>Record Keeping Requirements:</u> NOTE: All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control Visible Emissions</u></p> <p>The Permittee shall maintain operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 3

The Permittee shall maintain:

- a. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(c)]**
- b. Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08F(1)(e)]**
- c. An operations manual and preventive maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(b)]**

D. Boiler MACT Tune-up

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 and §63.11223 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)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 3	
	<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. The records may be kept off site for the remaining three (3) years. [Reference: 40 CFR §63.11225(d)]</p>
3.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08F(1)(e)]</p> <p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none"> 1. The Permittee must submit all applicable notifications in §63.7(b), §63.8(e) and (f), §63.9(b) through (e), and §63.9(g) and (h). [Reference: 40 CFR §63.11225(a)(1)] 2. The Permittee must submit an Initial Notification, as specified in 40 CFR §63.9(b)(2), no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. [Reference: 40 CFR §63.11225(a)(2)] 3. The Permittee must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §63.9(h)(2), your notification must include the following certifications of compliance, as applicable, and signed by a responsible official:

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 3	
	<p>a. "This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler."</p> <p>b. The notification must be submitted electronically using 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 40 CFR 63, Subpart JJJJJJ, is not available in CEDRI at the time the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. [Reference: 40 CFR §63.11225(a)(4)(i), (4)(ii), and (4)(vi), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]</p>
	<p>4. The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:</p> <p>a. Company name and address.</p> <p>b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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.</p> <p>c. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."</p> <p>d. 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) and 40 CFR §63.10(a)(5)]</p>

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

Table IV – 4	
4.0	<u>Emissions Unit Number(s): Space Heating Boilers rated GREATER THAN 10 MMBtu/hr. constructed BEFORE June 4, 2010.</u>

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 4	
	<p><u>E3312-A04 & A05</u>: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 33.476 million Btu per hour heat input.</p> <p><u>E3312-A01</u>: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 33.476 million Btu per hour heat input.</p> <p><u>E5126-A06</u>: One (1) Cleaver Brooks No. 2 oil fired boiler rated at 37.4 MMBtu/hr. heat input</p>
4.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.” 2. COMAR 26.1.09.05A(3), <u>Exceptions</u>. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: <ol style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period.” <p>B. <u>Control of Sulfur Oxides</u></p> <p>COMAR 26.11.09.07A(2), <u>Sulfur Content Limitations for Fuel</u>. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.08B(5), <u>Operator Training</u>.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 4

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
- a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NOx 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.

D. Boiler MACT Tune-up

1. The Permittee 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. **[Reference: 40 CFR §63.11201(b)]**
2. The Permittee shall conduct an initial tune-up as specified in §63.11214 and conduct a tune-up of the boiler biennially as specified in §63.11223. **[Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**
3. These standards apply at all times, except during periods of startup and shutdown. **[Reference: 40 CFR §63.11201(d)]**

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 4

	<p>4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2). [Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]</p> <p>5. The Permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (a) to (d) appropriate for the on-site technical hours listed in 40 CFR §63.11237:</p> <ul style="list-style-type: none"> a. A visual inspection of the boiler system, b. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints, c. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator, d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage, e. A list of major energy conservation measures that are within the facility's control, f. A list of the energy savings potential of the energy conservation measures identified, and g. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [Reference: 40 CFR §63.11201(k)(3) and 40 CFR Part 63 Subpart JJJJJJ Table 2]
4.2	<u>Testing Requirements:</u>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 4

<p>A. <u>Visible Emissions Limitations</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>See Monitoring Requirements.</p> <p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none">1. The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. [Reference: 40 CFR §63.11223(a)]2. The Permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified below:<ol style="list-style-type: none">a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made
--

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 4	
	<p>(measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.</p> <p>f. Maintain onsite and submit, if requested, a report containing the following information:</p> <ul style="list-style-type: none"> i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler. ii. A description of any corrective actions taken as a part of the tune-up of the boiler. iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit. <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>
4.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p>The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>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> <p>D. <u>Boiler MACT Tune-up</u></p> <p>At all times the Permittee must operate and maintain any affected source, including air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 4

control practices for minimizing emissions. The general duty to minimize emissions does not require you 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)]

4.4 **Record Keeping Requirements:**

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

A. Control Visible Emissions

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

B. Control of Sulfur Oxide Emissions

The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. [Reference: COMAR 26.11.09.07C]

C. Control of Nitrogen Oxide Emissions

The Permittee shall maintain:

- a. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)]
- b. Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)]
- c. An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)]

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 4

Table IV – 4	
	<p>D. <u>Boiler MACT Tune-up</u></p> <ol style="list-style-type: none"> 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 and §63.11223 as follows: <ol style="list-style-type: none"> 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. The records may be kept off site for the remaining three (3) years. [Reference: 40 CFR §63.11225(d)]
4.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 4

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

B. Control of Sulfur Oxide Emissions

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

C. Control of Nitrogen Oxide Emissions

The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08F(1)(e)]**

D. Boiler MACT Tune-up

1. The Permittee must submit all applicable notifications in §63.7(b), §63.8(e) and (f), §63.9(b) through (e), and §63.9(g) and (h). **[Reference: 40 CFR §63.11225(a)(1)]**
2. The Permittee must submit an Initial Notification, as specified in 40 CFR §63.9(b)(2), no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. **[Reference: 40 CFR §63.11225(a)(2)]**
3. The Permittee must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §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. The notification must be submitted electronically using 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 40 CFR 63, Subpart JJJJJJ, is not available in CEDRI at the time the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. **[Reference: 40 CFR**

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 4	
	<p align="center">§63.11225(a)(4)(i), (4)(ii), and (4)(vi), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]</p> <p>4. The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:</p> <ul style="list-style-type: none"> a. Company name and address. b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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 JJJJJ. c. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." d. 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) and 40 CFR §63.10(a)(5)]

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

Table IV – 5	
5.0	<p><u>Emissions Unit Number(s): NSPS Boilers</u></p> <p><u>E4160-A02 & A03</u>: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 12.5 million Btu per hour heat input.</p> <p><u>E5126-A01 & A02</u>: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 73.1 million Btu per hour heat input.</p> <p><u>E2901-A04 thru A07</u>: Four (4) natural gas/No. 2 fuel oil fired boilers, each rated at 33.5 million Bu per hour heat input utilizing low NOx burners located at MRICD.</p> <p><u>E2851-A01, A02, & A03</u>: Three (3) Superior natural gas/No. 2 fuel oil fired boilers each rated at 11.7 MMBtu/hr.</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5	
	<u>E2851-A04 & A05</u> : Two (2) English natural gas/No. 2 fuel oil fired boilers each rated at 11.7 MMBtu/hr.
5.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.” 2. COMAR 26.1.09.05A(3), <u>Exceptions</u>. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: <ol style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. 3. The Permittee shall not cause to be discharged into the atmosphere from the 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. [Reference: 40 CFR §60.43c(c)] <p><i>Note: Compliance with the “No Visible Emissions” requirement of COMAR 26.11.09.05A(2) will be used to show compliance with this NSPS standard.</i></p> <ol style="list-style-type: none"> 4. The particulate matter and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction. [Reference: 40 CFR §60.43c(d)] <p>B. <u>Control of Sulfur Oxides</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.07A(2), <u>Sulfur Content Limitations for Fuel</u>. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

2. The Permittee shall not cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/million Btu) heat input; or 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 percent weight percent sulfur. [Reference: 40 CFR §60.42c(d)]
3. 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 40 CFR §60.48c(f). [Reference: 40 CFR §60.42c(h)]
4. The SO₂ emission limits and fuel oil sulfur limits requirements under this section apply at all times, including periods of startup, shutdown, and malfunction. [Reference: 40 CFR §60.42c(i)]

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08E, Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu/hr. or Less. A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 MMBtu/hr. or less shall:
 - a. 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;
 - b. Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
 - c. 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;
 - d. Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

- 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.

Condition C3 applies to EU E2901-A04 thru A07 only.

3. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the MRICD Building. These emission units include E2901-A01 thru A07. [Reference: MDE Permit to Construct No. 025-0082-5-0306 and 025-0082-9-0402]

Condition C4 applies to EU E2851-A01 thru A05

4. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the PHCL Building. These emission units include E2851-A01 thru A07. [Reference: MDE Permit to Construct No. 025-0082-5-0347 thru 5-0351 and 025-0082-9-0485 & 9-0486]

D. Boiler MACT Tune-up

1. The Permittee 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. [Reference: 40 CFR §63.11201(b)]
2. The Permittee shall conduct an initial tune-up as specified in §63.11214 and conduct a tune-up of the boiler biennially as specified in §63.11223. [Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]
3. These standards apply at all times, except during periods of startup and shutdown. [Reference: 40 CFR §63.11201(d)]
4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2). [Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]

Condition 5 applies to EU E4160-A02 & A03 and E5126-A01 & A02 only.

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 5

	<p>5. The Permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (a) to (d) appropriate for the on-site technical hours listed in 40 CFR §63.11237:</p> <ul style="list-style-type: none"> a. A visual inspection of the boiler system, b. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints, c. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator, d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage, e. A list of major energy conservation measures that are within the facility's control, f. A list of the energy savings potential of the energy conservation measures identified, and g. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [Reference: 40 CFR §63.11201(k)(3) and 40 CFR Part 63 Subpart JJJJJJ Table 2]
5.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p style="padding-left: 40px;">The Permittee shall demonstrate compliance with the SO₂ standards based on a performance test that shall consist of the certification from the</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

fuel supplier, as described under 40 CFR §60.48c(f)(1), (2), or (3), as applicable. **[Reference: 40 CFR §60.44c(h)]**

C. Control of Nitrogen Oxides

The Permittee shall perform a combustion analysis once a year.
[Reference: COMAR 26.11.09.08E(2)]

D. Boiler MACT Tune-up

1. The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a)]**
2. The Permittee must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified below:
 - a. As applicable, inspect the burner and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - b. Inspect the flame pattern as applicable and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).
 - d. Optimize the total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
 - e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

	<p>f. Maintain onsite and submit, if requested, a report containing the following information:</p> <ul style="list-style-type: none"> i. The concentrations of CO in the effluent stream in parts per million, by volume and oxygen in volume percent, measured at high-fire or typical operating load, before and after the tune-up of the boiler. ii. A description of any corrective actions taken as a part of the tune-up of the boiler. iii. The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler. Units sharing a fuel meter may estimate the fuel use by each unit. <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>
<p>5.3</p>	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Visible Emissions Limitations</u></p> <ul style="list-style-type: none"> 1. The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions; and verify no visible emissions when burning No. 2 fuel oil. [Reference: COMAR 26.11.03.06C] 2. The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year. [Reference: COMAR 26.11.03.06C] 3. The Permittee shall perform the following, if emissions are visible: <ul style="list-style-type: none"> a. Inspect combustion control system and boiler operations, b. Perform all necessary adjustments and/or repairs to the boiler within 48 hours, so that visible emissions are eliminated; c. Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and d. After 48 hours, if the required adjustments and/or repairs had not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions. [Reference: COMAR 26.11.03.06C] <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>The monitoring requirements of 40 CFR §60.46c(a) and (d) shall not apply, so long as, the Permittee demonstrates compliance with the SO₂</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 5

	<p>standards based on fuel supplier certification, as described under §60.48c(f)(1), (2) or (3), as applicable. [Reference: 40 CFR §60.46c(e)]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>The Permittee shall optimize combustion based on the annual combustion analysis. [Reference: COMAR 26.11.09.08E(2)]</p> <p>D. <u>Boiler MACT Tune-up</u></p> <p>At all times the Permittee must operate and maintain 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 you 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>
<p>5.4</p>	<p><u>Record Keeping Requirements:</u> NOTE: All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control Visible Emissions</u></p> <p>The Permittee shall maintain operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>1. The Permittee shall submit notification of the date of construction or reconstruction and actual startup. This notification shall include:</p> <ul style="list-style-type: none"> a. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility. b. If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR §60.42c, or §60.43c.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

- c. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired. **[Reference: 40 CFR §60.48c(a)]**
2. The Permittee shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period. **[Reference: 40 CFR §60.48c(c)]**
3. Fuel supplier certification shall include the following information:
 - a. The name of the oil supplier;
 - b. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; **[Reference: 40 CFR §60.48c(f)]**
 - c. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. **[Reference: 40 CFR §60.48c(e)(11)]**
4. The Permittee shall record and maintain records of the amount of each fuel combusted during each operating day. As an alternative, the Permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month or the total amount of fuel delivered to that property during each calendar month. **[Reference: 40 CFR §60.48c(g)(1), (2), and (3)]**

C. Control of Nitrogen Oxide Emissions

The Permittee shall maintain combustion analysis results on-site for at least two (2) years and make this data available to the Department and the EPA upon request, records of training program attendance for each operator at the site and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)]**

D. Boiler MACT Tune-up

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 and §63.11223 as follows:

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 5

	<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> <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. The records may be kept off site for the remaining three (3) years. [Reference: 40 CFR §63.11225(d)]</p>
5.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations".</p> <p>B. <u>Control of Sulfur Oxide Emissions</u></p> <p>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. [Reference: 40 CFR §60.48c(j)]</p> <p>C. <u>Control of Nitrogen Oxide Emissions</u></p> <p>The Permittee shall submit:</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 5

- a. A record of training program attendance for each operator to the Department upon request;
- b. Results of combustion analysis to the Department and EPA upon request;
- c. Record of combustion optimization training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(3) and (5)]**

D. Boiler MACT Tune-up

1. The Permittee must submit all applicable notifications in §63.7(b), §63.8(e) and (f), §63.9(b) through (e), and §63.9(g) and (h). **[Reference: 40 CFR §63.11225(a)(1)]**
2. The Permittee must submit an Initial Notification, as specified in 40 CFR §63.9(b)(2), no later than January 20, 2014 or within 120 days after the source becomes subject to the standard. **[Reference: 40 CFR §63.11225(a)(2)]**
3. The Permittee must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §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. The notification must be submitted electronically using 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 40 CFR 63, Subpart JJJJJJ, is not available in CEDRI at the time the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in §63.13. **[Reference: 40 CFR §63.11225(a)(4)(i), (4)(ii), and (4)(vi), 40 CFR §63.11214(b) and 40 CFR §63.11214(c)]**
4. The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 5	
	<p>b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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.</p> <p>c. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."</p> <p>d. 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) and 40 CFR §63.10(a)(5)]</p>

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

Table IV – 6	
6.0	<p><u>Emissions Unit Number(s): Emergency generator exempt from NSPS</u></p> <p><u>E3549-A01</u>: One (1) Cummins diesel fired emergency generator set rated at 1135 hp</p> <p><u>E3835-A01</u>: One (1) Cummins diesel fired emergency generator set rated at 900 hp</p> <p><u>E3150-A01, A02, & A03</u>: Three (3) Cummins diesel fired emergency generator sets each rated at 1350 hp.</p> <p><u>E3300-A01</u>: One (1) Cummins diesel fired emergency generator rated at 1490 hp.</p> <p><u>E1457-A01</u>: One (1) Detroit diesel fired emergency generator set rated at 2200 hp.</p> <p><u>E3400-A01</u>: One (1) Caterpillar diesel fired emergency generator set rated at 1816 hp (1250 kW).</p> <p><u>E2390-A01</u>: One (1) Cummins diesel fired emergency generator set rated at 680 hp.</p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 6	
	<p><u>E5126-A11: One (1) Cummins diesel fired emergency generator set rated at 635 hp</u></p> <p><u>E5146-A01: One (1) diesel fired emergency generator rated at 500 hp.</u></p>
6.1	<p>Applicable Standards/Limits:</p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05E(2), <u>Emissions During Idle Mode.</u> “A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.” 2. COMAR 26.11.09.05E(3), <u>Emissions During Operating Mode.</u> “A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.” 3. COMAR 26.11.09.05E(4), <u>Exceptions.</u> <ol style="list-style-type: none"> a. “Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system. b. Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: <ol style="list-style-type: none"> i. Engines that are idled continuously when not in service: 30 minutes; ii. All other engines: 15 minutes. c. Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics.” <p>B. <u>Control of Sulfur Oxides</u></p> <p>COMAR 26.11.09.07A(2), <u>Sulfur Content Limitations for Fuel.</u> “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”</p> <p>C. <u>Control of Nitrogen Oxides</u></p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 6

1. **COMAR 26.11.09.08B(5) - Operator Training.**
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

2. **COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less.**
 - a. A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
 - i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - iii. Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
 - iv. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - v. Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtain approval from the Department to burn an alternate fuel. **[Reference: COMAR 26.11.02.09A]**

2. The Permittee must operate emergency stationary RICE according to the requirements in the paragraphs of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements in the paragraphs of this section, the engine will not

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 6	
	<p>be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.</p> <p>a. There is no limit on emergency operation of the engine.</p> <p>b. The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year.</p> <p>c. The Permittee may operate the emergency engine for up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for the maintenance and testing and emergency response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [Reference: 40 CFR §63.6640(f)(1), (2), and (4)]</p>
6.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Reference: COMAR 26.11.09.08G(1)(b)]</p> <p>D. <u>Operational Limits</u></p>

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 6	
	See Monitoring Requirements.
6.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.03.06C].</p> <p>D. <u>Operational Limits</u></p> <p>The Permittee shall monitor fuel usage for the generator. [Reference: COMAR 26.11.03.06C]</p>
6.4	<p><u>Record Keeping Requirements:</u></p> <p>All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06.C (5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 6	
	<p>The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>The Permittee shall:</p> <ol style="list-style-type: none"> a. Maintain the results of the combustion analysis at the site for at least 5 years and make these results available to the Department and the EPA upon request. [Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C]. b. Retain records of training program attendance for each operator at the site for at least 5 years and make these records available to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C]. <p>D. <u>Operational Limits</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. [Reference: COMAR 26.11.03.06C]. 2. The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s): <ol style="list-style-type: none"> a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine; and b. The installation date of the emergency diesel generator. [Reference: COMAR 26.11.03.06C]
6.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations" [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall report annual fuel supplier certification to the Department upon request. [Reference: COMAR 26.11.09.07C]</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 6	
	<p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C] 2. The Permittee shall submit a list of trained operators to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C] <p>D. <u>Operational Limits</u></p> <p>The Permittee shall send a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. [Reference: COMAR 26.11.03.06C]</p>

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

Table IV – 7	
7.0	<p><u>Emissions Unit Number(s): NSPS emergency generators</u></p> <p><u>E2800-A01</u>: One (1) Kohler diesel fired emergency generator set rated at 1881 hp</p> <p><u>E3510-A01</u>: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.</p> <p><u>E5100-A01</u>: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp (1500 kW).</p> <p><u>E3401-A01</u>: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.</p> <p><u>E2901-A01, A02, & A03</u>: Three (3) Caterpillar or equivalent Tier 1 diesel fired emergency generator sets each rated at 3673 hp (2500 kW) located at MRICD.</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 7

	<p><u>E3844-A03</u>: One (1) Kohler diesel fired emergency generator set rated at 1341 hp (1000 kW).</p> <p><u>E2400-A01</u>: One (1) Katolight diesel fired emergency generator set rated at 1207 hp.</p> <p><u>E3566-A01</u>: One (1) MTU Onsite Energy diesel fired emergency generator set rated at 635 hp (400 kW).</p> <p><u>E2851-A06 & A07</u>: Two (2) Cummins diesel fired emergency generator rated at 2923 hp (1280 kW).</p> <p><u>E3857</u>: One (1) diesel fired emergency generator rated at 2923 hp (2000 kW).</p> <p><u>E2100-A01</u>: <u>One (1) Kohler diesel fired emergency generator, rated at 940 hp (600-kW)</u></p> <p><u>E3462-A01</u>: One Kohler emergency generator rated at 755 hp (500 kW) to support the Chemical Demilitarization Training Facility (CDTF).</p> <p><u>E3150</u>: One Cummins diesel-fired emergency generator set rated at 2682 horsepower.</p>
7.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05E(2), <u>Emissions During Idle Mode.</u> “A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.” 2. COMAR 26.11.09.05E(3), <u>Emissions During Operating Mode.</u> “A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.” 3. COMAR 26.11.09.05E(4), <u>Exceptions.</u> <ol style="list-style-type: none"> a. “Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 7

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

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

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

C. Control of Nitrogen Oxides

1. **COMAR 26.11.09.08B(5), Operator Training.**

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

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

- a. A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
 - i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 7

- iii. Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
- iv. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- v. Maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

Condition C3 applies to E2901-A01 thru A03 only.

1. The Permittee shall not emit more than 25 tons of NOx per 12-month rolling average from any combination of emission units located in the MRICD Building. These emission units include E2901-A01 thru A07. **[Reference: MDE Permit to Construct No. 025-0082-5-0306 and 025-0082-9-0402]**

Condition C4 applies to E2851-A06 and A07

2. The Permittee shall not emit more than 25 tons of NOx per 12-month rolling average from any combination of emission units located in the PHCL Building. These emission units include E2851-A01 thru A07. **[Reference: MDE Permit to Construct No. 025-0082-5-0347 thru 5-0351 and 025-0082-9-0485 & 9-0486]**

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtains a Permit to Construct from the Department to burn alternate fuel. **[Reference: COMAR 26.11.02.09A]**
2. The Permittee must operate and maintain the generators in a manner that achieve the emissions standards over the entire life of the engine. **[Reference: 40 CFR §60.4206]**
3. The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §1090.305 as follows:
 - a. Maximum sulfur content 15 ppm and
 - b. Minimum cetane index of 40; or
 - c. Maximum aromatic content of 35 volume percent.**[Reference: 40 CFR §60.4207(b) and 40 CFR §1090.305]**

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 7

4. The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission related written instruction. **[Reference: 40 CFR §60.4211(a)(1)]**
 5. The Permittee may change only those emission related settings that are permitted by the manufacturer. **[Reference: 40 CFR §60.4211(a)(2)]**
 6. The Permittee must purchase an engine certified to the emission standards in 40 CFR §60.4205(b). The engine must be installed and configured according to the manufacturer's emissions related specifications. **[Reference: 40 CFR §60.4211(c)]**
 7. The Permittee must not exceed the following opacity emission standards:
 - a. 20 percent during the acceleration mode;
 - b. 15 percent during the lugging mode; and
 - c. 50 percent during the peaks in either the acceleration or lugging modes. **[Reference: 40 CFR §60.4205(b), §60.4202(a)(2), and §1039.105]**
- Note:** *Compliance with this condition will be demonstrated by the purchase of a certified engine and operating that engine as required under 40 CFR §60.4211(c).*
8. There is no time limit on the use of emergency stationary ICE (internal combustion engine) in emergency situations. **[Reference: 40 CFR §60.4211(f)(1)]**
 9. The Permittee may operate the emergency stationary ICE for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. **[Reference: 40 CFR §60.4211(f)(2)(i)]**

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 7	
	<p>10. The Permittee may operate the emergency stationary ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in the previous paragraph of this section. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [Reference: 40 CFR §60.4211(f)(3)]</p>
7.2	<p><u>Testing Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p style="padding-left: 40px;">The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Reference: COMAR 26.11.09.08G(1)(b)]</p> <p>D. <u>Operational Limits</u></p> <p style="padding-left: 40px;">See Monitoring Requirements.</p>
7.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p style="padding-left: 40px;">The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 7	
	<p>The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil complies with the limitation on sulfur content of the fuel oil. [Reference: COMAR 26.11.03.06C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. [Reference: COMAR 26.11.03.06C]. 2. The Permittee shall calculate the capacity factor of the engine within 30 days after the end of each month. [Reference: COMAR 26.11.03.06C] <p>D. <u>Operational Limits</u></p> <p>The Permittee shall monitor fuel usage for the generator. [Reference: COMAR 26.11.03.06C]</p>
7.4	<p><u>Record Keeping Requirements:</u></p> <p>All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06.C (5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall retain annual fuel supplier certifications stating that the fuel oil is in compliance with this regulation must be maintained for at least 5 years. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee shall maintain records of the results of the combustion analyses and any stack tests on site for at least five years and make them available to the Department and EPA upon request. [Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 7

	<p>2. The Permittee shall maintain a record of the calculated capacity factor. [Reference: COMAR 26.11.09.08G(1)(c)].</p> <p>3. The Permittee shall maintain record of training program attendance for each operator on site for at least five years and make the records available to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) & COMAR 26.11.03.06C]</p> <p>D. <u>Operational Limits</u></p> <p>1. The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. [Reference: COMAR 26.11.03.06C].</p> <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). [Reference: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013] <p>3. Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §1090.305. The Permittee shall maintain the required records on site for at least five (5) years. [Reference: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013]</p>
7.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations" [Reference: COMAR 26.11.03.06C].</p> <p>B. <u>Control of Sulfur Oxides</u></p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 7	
	<p>The Permittee shall report annual fuel supplier certification to the Department upon request. [Reference: COMAR 26.11.09.07C]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. [Reference: COMAR 26.11.03.06C]. 2. The Permittee shall submit a list of trained operators to the Department upon request. [Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C] <p>D. <u>Operational Limits</u></p> <p>The Permittee shall report a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. [Reference: COMAR 26.11.03.06C]</p>

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

Table IV–8	
8.0	<p><u>Emissions Unit Number(s): Paint Spray Booths</u></p> <p>E4301: Two (2) spray paint booths for R&D painting on plastic, metal and wood parts/pieces added in 2014 (MDE Registration No. 025-0082-6-0497 & 025-0082-6-0498). Located in Building E4301.</p>
8.1	<p><u>Applicable Standards/Limits</u></p> <p>A. <u>Control of VOC</u></p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV-8

1. **COMAR 26.11.19.07-2B(1) – Plastic Parts and Business Machines Coating. Standards for Coating Installations.** “A person may not cause or permit the discharge into the atmosphere of any VOC from any installation listed in §B(2), (3), and (4) of this regulation in excess of the standards in §B(2), (3), and (4) of this regulation.”

2. **COMAR 26.11.19.07-2B(2) – Plastic Parts and Business Machines Coating. Plastic Parts Coating Standards:**

Coating Installation	Applicability (Pounds of VOC per day)	Pounds of VOC Per Gallon of Coating (As applied minus water)	Kilograms of VOC Per Liter of Coating (As applied minus water)
Decorative coating of other plastic parts	20	5.9	0.70
General, one-component	15	2.3	0.28
General, multi-component	15	3.5	0.42
Electric dissipating coatings and shock-free coatings	15	6.7	0.80
Extreme performance	15	3.5	0.42
Metallic	15	3.5	0.42
Military specification, one-component	15	2.8	0.34
Military specification, multi-component	15	3.5	0.42
Mold seal	15	6.3	0.76
Multi-colored coatings	15	5.7	0.68
Optical coatings	15	6.7	0.80
Plastic vehicle parts	20	3.0	0.36
Vacuum-metalizing	15	6.7	0.80
Vinyl	20	3.8	0.45

3. **COMAR 26.11.19.08D(1) – Metal Parts and Products Coating. Emission Standards.** “A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal furniture coating:”

Coating Type	Baked		Air-Dried	
	Lbs./gal	Kg/l	Lbs./gal	Kg/l

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV-8

General, one-component	2.3	0.275	2.3	0.275
General, multi-component	2.3	0.275	2.8	0.340
Extreme performance	3.0	0.360	3.5	0.420
Metallic	3.5	0.420	3.5	0.420
Pretreatment	3.5	0.420	3.5	0.420
Solar absorbent	3.0	0.360	3.5	0.420
Extreme high gloss	3.0	0.360	2.8	0.340

4. **COMAR 26.11.19.08D(2) – Metal Parts and Products Coating Emission Standards.** “A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal parts and products coating:”

Coating Type	Baked		Air-Dried	
	Lbs./gal	Kg/l	Lbs./gal	Kg/l
General, one-component	2.3	0.275	2.3	0.275
General, multi-component	2.3	0.275	2.8	0.340
Adhesion promoter	4.0	0.479	4.0	0.479
Prefabricated architectural one component and multi-component	2.3	0.280	3.5	0.420
Military specification	2.3	0.280	2.8	0.340
Extreme high-gloss; extreme performance; heat-resistant; high performance architectural; repair coating; solar absorbent; or touch up coating	3.0	0.360	3.5	0.420
Camouflage, electric-insulating varnish; etching filler; high temperature; metallic; mold-seal; pan backing; pretreatment; silicone release and vacuum-metalizing	3.5	0.420	2.8	0.420

5. **COMAR 26.11.19.32D – Control of Volatile Organic Compounds (VOC) from Wood Coating Operations. General Requirements.**

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV-8

- a. "Spray Gun Application. A person subject to this regulation that applies a coating with a spray gun shall use a high volume-low pressure (HVLP) spray gun or other high efficiency application method approved by the Department."
 - b. "Alternative Compliance Method. A person subject to this regulation may achieve compliance with the requirements of this regulation through use of a control device that reduces emissions from the wood coating operation by not less than 90 percent overall."
- 6. COMAR 26.11.19.32E – Control of Volatile Organic Compounds (VOC) from Wood Coating Operations. VOC Content Limits.**
- a. "A person subject to this regulation shall meet the VOC content limits for coatings described in Table 1:"

Table 1		
VOC Content Limits of Coatings as Applied, Less Water and Exempt Compounds		
Coating Category	Grams per Liter	Pounds per Gallon
Stains	250	2.1
Washcoats, topcoats, and basecoats	420	3.5
Primers and sealers	200	1.7
Pigmented coatings	550	4.6
Clear topcoats	680	5.7
Conversion varnishes	725	6.1
Coating Category	Grams per Liter	Pounds per Gallon

- b. "Daily Weighted Average Option. A person may demonstrate compliance by showing that the daily weighted average VOC of all compliant and noncompliant coatings used is equal to or less than 398 grams per liter (3.3 pounds per gallon)."
- c. "A person subject to this regulation shall meet the VOC content limits for non-coating materials described in Table 2:"

Table 2

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD.21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV-8

	VOC Content Limits of Non-Coating Materials as Applied, Less Water and Exempt Compounds	
Non-Coating Materials	Grams per Liter	Pounds per Gallon
Fillers	500	4.2
Paint removers and strippers	350	2.9
Adhesives	120	1.0

B. Good Operating Practices

1. COMAR 26.11.19.021(2) – Good Operating Practices, Equipment Cleanup and VOC Storage. Good Operating Practices.

- a. "A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere."
- b. "Good operating practices shall, at a minimum, include the following:
 - i. Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;
 - ii. Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;
 - iii. Minimize spills of VOC-containing cleaning materials;
 - iv. Convey VOC-containing cleaning materials from one location to another in closed containers or pipelines;
 - v. Minimize VOC emissions from cleaning of storage, mixing, and conveying equipment;
 - vi. As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;
 - vii. For spray gun applications of coatings, use of high-volume low pressure (HVLP) or other high efficiency application methods where practical; and
 - viii. As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC. "
- c. "A person subject to this regulation shall:
 - i. Establish good operating practices in writing;

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV-8

- ii. Make the written operating practices available to the Department upon request; and
 - iii. Display the good operating practices so that they are clearly visible to the operator or include them in operator training.”
2. **COMAR 26.11.19.02I(3) – Good Operating Practices, Equipment Cleanup and VOC Storage. Equipment Cleanup.**
- a. “A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps.”
 - b. “Reasonable precautions for equipment cleanup shall, at a minimum, include the following:
 - i. Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
 - ii. Preparing written standard operating procedures for frequently cleaned equipment, including when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;
 - iii. Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
 - iv. Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.”
3. **COMAR 26.11.19.02I(4) – Good Operating Practices, Equipment Cleanup and VOC Storage. VOC Storage and Transfer.**
- a. “A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more to minimize VOC emissions.”
 - b. “A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia.”

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV-8

	<p>4. COMAR 26.11.19.16C – Control of VOC Leaks. General Requirements. “A person subject to this regulation shall comply with all of the following requirements:</p> <ul style="list-style-type: none"> a. Visually inspect all components on the premises for leaks at least once each calendar month. b. Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired. c. Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours. d. Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part. e. Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings. f. Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.” <p>5. COMAR 26.11.19.16D – Control of VOC Leaks. Exceptions. “Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source’s maintenance schedule for repair during the next source shutdown.”</p>
<p>8.2</p>	<p><u>Testing Requirements</u></p> <ul style="list-style-type: none"> A. <u>Control of VOC</u> See Monitoring Requirements. B. <u>Good Operating Practices</u> See Monitoring Requirements.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV-8

8.3	<p><u>Monitoring Requirements</u></p> <p>A. <u>Control of VOC</u></p> <ol style="list-style-type: none">1. The Permittee shall check the Material Safety Data Sheet (MSDS) to ensure that the VOC content of plastic (or wood) coatings is less than the applicable standard. The MSDS shall contain VOC data that is based on EPA Method 24 or equivalent. If non-compliant coatings are used, the Permittee shall maintain sufficient records to demonstrate that the emissions were less than 20 pounds per day based on a monthly average. [Reference: COMAR 26.11.03.06C]2. The Permittee shall check MSDS to ensure that the VOC content of metal coatings is less than the applicable standard. The MSDS shall contain VOC data based on EPA Method 24 or equivalent. If non-compliant coatings are used, the Permittee shall maintain sufficient records to demonstrate that the emissions were less than 20 pounds per day based on a monthly average. [Reference: COMAR 26.11.03.06C] <p>B. <u>Good Operating Practices</u></p> <ol style="list-style-type: none">1. The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of "good operating practices" designed to minimize emissions of VOC. [Reference: COMAR 26.11.03.06C]2. The Permittee shall:<ol style="list-style-type: none">a. Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for VOC leaks at least once each calendar month;b. Tag any VOC leak immediately with I.D. Number, the date VOC leak was discovered and the name of the person who discovered the VOC leak. The tag is to remain in place until the VOC leak is repaired;c. Take immediate action to repair/control all observed VOC leaks that can be repaired within 48 hours;d. Repair all other VOC leaking components not later than 15 days after the VOC leak is discovered in accordance with COMAR 26.11.19.16C(4);

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV-8	
	<p>e. If a replacement part is needed, it shall be ordered within 3 days after discovery of the VOC leak and the leak shall be repaired within 48 hours after receiving the part;</p> <p>f. Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and</p> <p>g. Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown. [Reference: COMAR 26.11.19.16C and D]</p>
8.4	<p><u>Record Keeping Requirements:</u> Note: All records must be maintained for a period of at least 5 years. [Reference: COMAR 26.11.03.06C(5)(g)]</p> <p>A. <u>Control of VOC</u></p> <p>1. COMAR 26.11.19.32F(1) – <u>Record Keeping Requirements.</u></p> <p>a. "A person subject to this regulation shall maintain a monthly record of:</p> <p style="margin-left: 20px;">i. The quantity of all coatings and materials used (liters); and</p> <p style="margin-left: 20px;">ii. Material data sheets, material lists, container labeling or records sufficient to show the VOC content of all coatings and materials used."</p> <p>b. "A person demonstrating compliance using the daily weighted average of coatings as provided in §E(2) of this regulation shall maintain records sufficient to show daily compliance."</p> <p>c. "Records shall be maintained for at least 2 years and made available to the Department upon request."</p> <p>2. The Permittee shall maintain a copy of MSDS for each coating used. Records of material usage shall be maintained onsite for at least 5 years and shall be made available to the Department upon request. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Good Operating Practices</u></p> <p>1. The Permittee shall maintain:</p> <p style="margin-left: 20px;">a. Written descriptions of all "good operating practices" designed to minimize emissions of VOC from facility-wide operations. [Reference: COMAR 26.11.19.02I]</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV-8	
	<p>b. Records of all inspections conducted to determine the facility's compliance status with regard to implementation of "good operating practices" designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. [Reference: COMAR 26.11.03.06C]</p> <p>2. The Permittee shall:</p> <p>a. Maintain a log that includes the name of the person conducting the inspection, the date on which VOC leak inspection was made, the findings of the inspection, a list of VOC leaks by tag identification number, the date the part was ordered, and the date the VOC leak was repaired; and</p> <p>b. Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the VOC leaks' occurrence. [Reference: COMAR 26.11.19.16C(6)]</p>
8.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of VOC</u></p> <p>The Permittee shall report material usage and VOC content of coatings to the Department annually in the Emission Certification Report. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Good Operating Practices</u></p> <p>1. Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request.</p> <p>2. VOC Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.</p>

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

Table IV - 9	
9.0	Emissions Unit Number(s): CHP and HRSG

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 9

	<p>E5126-A10: One (1) cogeneration unit consisting of a dual fired combustion turbine driven generator with a heat recovery steam generator (HRSG) to provide steam and approximately 7.9 MW of electric power.</p>
9.1	<p><u>Applicable Standards/Limits:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.05A(2), <u>Fuel Burning Equipment</u>. “Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.” 2. COMAR 26.1.09.05A(3), <u>Exceptions</u>. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: <ol style="list-style-type: none"> a. The visible emissions are not greater than 40 percent opacity; and b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty-minute period. <p>B. <u>Control of Sulfur Oxides</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.09.07A(2)(b) – <u>Control of Sulfur Oxides From Fuel Burning Equipment. Sulfur Content Limitations for Fuel</u>. “A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (b) Distillate fuel oils, 0.3 percent.” 2. COMAR 26.11.09.07C – <u>Control of Sulfur Oxides From Fuel Burning Equipment. Request for Analyses</u>. “Any person offering to sell or deliver fuel or any person responsible for equipment in which fuel or process gas is burned, upon request, shall submit to the Department or control officer such analyses of fuel or process gas as may be required to determine compliance with this regulation.” 3. The Permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 9

contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb./MWh)) gross output. [Reference: 40 CFR §60.4330(a)(1)]

4. The Permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb. SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. [Reference: 40 CFR §60.4330(a)(2)]

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08G. - Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.
 - a. "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
 - i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - iii. Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request."
 - b. "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."
3. The Permittee must meet the emission limits specified in 40 CFR Part 60, Subpart KKKK, Table 1. If your total heat input is greater

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 9

than or equal to 50 percent natural gas, you must meet the corresponding limit for a natural gas-fired turbine when you are burning that fuel. Similarly, when your total heat input is greater than 50 percent distillate oil and fuels other than natural gas, you must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that you burn that particular fuel. **[Reference: 40 CFR §60.4325 and 40 CFR Part 60, Subpart KKKK Table 1]**

Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines

Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO_x emission standard
New turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb./MWh).
New turbine firing fuels other than natural gas	>50 MMBtu/h and ≤ 850 MMBtu/h	74 ppm at 15 percent O ₂ or 460 ng/J of useful output (3.6 lb./MWh).

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

5. In order to exempt the Cogeneration project from major new source review, NO_x emissions from the combustion turbine shall be limited to less than 25 tons per year for any 12-month rolling period. **[Reference: MDE Permit to Construct No. 025-0082-5-0366]**

9.2 Testing Requirements:

A. Control of Visible Emissions

See Monitoring Requirements.

B. Control of Sulfur Oxides

The Permittee shall conduct performance test for SO_x in accordance with the methodologies specified in 40 CFR §60.4415. **[Reference: 40 CFR §60.4415(a)]**

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 9	
	<p>C. <u>Control of Nitrogen Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee shall perform a combustion analysis once a year. [Reference: COMAR 26.11.09.08E(2)] 2. The Permittee must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, you must resume annual performance tests. [Reference: 40 CFR §60.4340(a)] 3. As an alternative to the annual performance testing required in 40 CFR §60.4340(a), the Permittee may install, calibrate, maintain and operate one of the following continuous monitoring systems: <ol style="list-style-type: none"> a. Continuous emission monitoring as described in §60.4335(b) and §60.4345, or b. Continuous parameter monitoring as follows: <ol style="list-style-type: none"> i. For any turbine that uses SCR to reduce NO_x emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls. [Reference: 40 CFR §60.4340(b)] 4. The Permittee shall conduct performance test for NO_x in accordance with the methodologies specified in 40 CFR §60.4400. [Reference: 40 CFR 60.4400(a)]
9.3	<p><u>Monitoring Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall properly operate and maintain the CHP System in a manner to prevent visible emissions. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <ol style="list-style-type: none"> 1. The Permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR §60.4365. The

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 9

sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR §60.17), which measure the major sulfur compounds, may be used. [Reference: 40 CFR §60.4360]

2. The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb. SO₂/MMBtu) heat input for units located in continental areas and 180 ng SO₂/J (0.42 lb. SO₂/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. [Reference: 40 CFR §60.4365]
3. If the Permittee elects not to demonstrate sulfur content using options in 40 CFR §60.4365, and the fuel is supplied without intermediate bulk storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day. [Reference: 40 CFR §60.4370]
4. So long as the Permittee monitors sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:
 - a. For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
 - b. If the option to sample each delivery of fuel oil has been selected, you must immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

Table IV – 9

the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.

- c. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. **[Reference: 40 CFR §60.4385]**

C. Control of Nitrogen Oxides

1. The Permittee shall optimize combustion based on the annual combustion analysis. **[Reference: COMAR 26.11.09.08E(2)]**
2. The Permittee shall demonstrate continuous compliance with NO_x in accordance with 40 CFR §60.4340 as follows:
 - a. If the Permittee is not using water or steam injection to control NO_x emissions, The Permittee must perform annual performance tests in accordance with 40 CFR §60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, The Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, The Permittee must resume annual performance tests.
 - b. As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:
 - i. Continuous emission monitoring as described in 40 CFR §60.4335(b) and 40 CFR §60.4345, or
 - ii. For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the Permittee must define parameters indicative of the unit's NO_x formation characteristics, and you must monitor these parameters continuously.
3. The Permittee shall establish and document an appropriate parametric monitoring plan in accordance with 40 CFR §60.4355. The plan shall include, but not be limited to:

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 9	
	<p>a. Selection of indicators to be monitored, b. Ranges of indicators, c. Process used to obtain representative data, d. Quality assurance, e. Frequency of monitoring, and f. Justification for the proposed elements of monitoring. [Reference 40 CFR §60.4355]</p> <p>4. So long as the Permittee has chosen to monitor combustion parameters or parameters indicative of proper operation of NOX emission controls in accordance with 40 CFR §60.4340, the appropriate parameters must be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR §60.4355. [Reference: 40 CFR §60.4410]</p> <p>5. Periods of excess emissions and monitor downtime that must be reported are defined as follows: a. An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit. b. A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid. [Reference: 40 CFR §60.4385]</p>
9.4	<p><u>Record Keeping Requirements:</u></p> <p>All records must be maintained for a period of 5 years. [Reference: COMAR 26.11.03.06.C (5)(g)]</p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall maintain an operations manual and preventive maintenance plan. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee shall maintain records and results of fuel sulfur content monitoring and make them available to the Department</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

Table IV – 9	
	<p>upon request. [Reference: MDE Permit to Construct No. 25.0082-5-0366]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>1. The Permittee shall maintain:</p> <p style="margin-left: 20px;">a. Records of the results of the annual combustion analysis on site. [Reference: COMAR 26.11.09.08E(5)]</p> <p style="margin-left: 20px;">b. Record of training program attendance for each operator at the site. [Reference: COMAR 26.11.09.08E(5)]</p>
9.5	<p><u>Reporting Requirements:</u></p> <p>A. <u>Control of Visible Emissions</u></p> <p>The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [Reference: COMAR 26.11.03.06C]</p> <p>B. <u>Control of Sulfur Oxides</u></p> <p>The Permittee must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. [Reference: 40 CFR §60.4375(a) and §60.4395]</p> <p>C. <u>Control of Nitrogen Oxides</u></p> <p>1. The Permittee shall submit:</p> <p style="margin-left: 20px;">a. The results of combustion analysis to the department and the EPA upon request. [Reference: COMAR 26.11.09.08E(3)]</p> <p style="margin-left: 20px;">b. (2) A record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08E(5)]</p> <p>2. The Permittee must 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. [Reference: 40 CFR §60.4375(b)]</p> <p>3. All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. [40 CFR §60.4395]</p>

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

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

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

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. 31 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 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.

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.

See Table 3 for additional Requirements.

- (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;

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

The affected units are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2), Emissions During Idle Mode:
The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (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) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

- (6) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
- (7) Confection cookers where the products are edible and intended for human consumption;
- (8) Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (9) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (10) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (11) 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;
- (12) Containers, reservoirs, or tanks used exclusively for:
- (a) Storage of butane, propane, or liquefied petroleum, or natural gas;
- (b) No. 208 Storage of lubricating oils;
- (c) No. 165 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
- (d) No. 4 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
- (e) No. 1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels,

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082

varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

- (13) 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;
- (14) 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;
- (15) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (16) Firing and testing of military weapons and explosives;
- (17) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (18) Laboratory fume hoods and vents;
- (19) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 Stereolithography machine and parts washer/rinser.

No. T See Table Below

Reference: Memorandum dated August 2, 1996 from John S. Seitz, Director of Office of Air Quality Planning and Standards (MD-10), Subject: Major Source Determination for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act.

**US ARMY GARRISON ABERDEEN PROVING GROUND
 EDGEWOOD AREA, 2100 BUSH RIVER ROAD
 ABERDEEN PROVING GROUND, MD 21010
 PART 70 OPERATING PERMIT NO. 24-025-0082**

Emission Unit No.	ARA Registration Number	Emission Unit Description	Facility Description
E4010 -A01 through A03	025-0143-0151	Three underground gasoline storage tanks	AAFES (Mini Mart)
E2172-A01	025-0143-0151	One 2,500-gallon underground gasoline storage tank.	Gunpowder Boat Club
E4040-A91	025-0143-4-0623	Fuel Oil Boiler (2.163 MMBtu)	Maryland Army National Guard
E4651-A01	025-0143-4-0501	Fuel Oil Boiler	Gunpowder Boat Club
E4081-A01 & A02	025-0143-4-0685 & 4-0686	Two (2) Smith Cast Iron Fuel Oil Boilers (3.978 MMBtu)	Maryland Army National Guard
E4081-A03 & A04	025-0143-4-0698 & 4-0699	Two (2) Unilux Fuel Oil Boilers (4.2 MMBtu)	Maryland Army National Guard
E1902-A01	025-0143-0171	One (1) H.B. Smith natural gas fired boiler rated at 1.491 million Btu per hour heat input	Youth Center
E4305-A02 & A03	025-0082-4-0702 & 0703	Two (2) Smith No. 2 fuel oil fired boilers each rated at 2.836 MMBtu/hr.	Maryland Army National Guard

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA, 2100 BUSH RIVER ROAD
ABERDEEN PROVING GROUND, MD 21010
PART 70 OPERATING PERMIT NO. 24-025-0082**

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

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

1. Applicable Regulations:

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

BACKGROUND

The Aberdeen Proving Ground (APG) is a military installation which performs testing of military equipment, does laboratory research, and performs military training. APG is divided into two distinct areas: the northern Aberdeen Area and the southern Edgewood Area. This Part 70 permit application is for the Edgewood Area of APG. The regulated activities which produce air emissions at the Edgewood Area include space heating and NSPS boilers, generators, gasoline storage tanks, and surface coating activities. The applicable primary SIC code is 9711.

The following table summarizes the actual emissions from APG-Edgewood Area 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)
2019	41.98	2.50	10.00	51.97	6.14	1.05
2020	32.95	3.70	5.65	44.69	4.60	0.03
2021	34.41	3.46	6.32	46.36	5.38	0.03
2022	27.59	3.59	6.07	46.62	5.13	0.03
2023	24.07	3.35	6.23	43.52	4.58	0.03
2024	21.77	3.32	6.74	37.77	4.70	1.95

The major source threshold for triggering Title V permitting requirements in Harford County is 25 tons per year for NO_x, 25 tons per year for VOCs, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS. Since the actual NO_x emissions from the facility are greater than the major source threshold, APG-Edgewood Area is required to obtain a Title V-Part 70 Operating Permit under COMAR 26.11.03.01.

The Department on October 25, 2023 received APG-Edgewood Area's Part 70 renewal permit application. An administrative completeness review was conducted and the application was deemed to be administratively complete. A completeness determination letter was sent to APG-Edgewood Area on November 10, 2023 granting APG-Edgewood Area an application shield.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

GREENHOUSE GAS (GHG) EMISSIONS

APG-Edgewood Area emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from various processes (boilers and internal combustion engines) contained within the facility premises applicable to APG-Edgewood Area. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, emission certifications reports for the years 2021, 2022, and 2023, showed that APG-Edgewood Area is not a major source (threshold: 100,000 tpy CO_{2e}) for GHG's (see Table 2 shown below). The Permittee shall quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

The following table summarizes the actual emissions from APG-Edgewood Area based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2021 tpy CO _{2e}	2022 tpy CO _{2e}	2023 tpy CO _{2e}
Carbon dioxide CO ₂	1	62045	59496	58641
Methane CH ₄	25	0.40	0.10	0.69
Nitrous Oxide N ₂ O	298	0.28	0.04	0.30
Total GHG CO_{2eq}		62,138	59,510	58,748

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

The Emission Units of this Title V – Part 70 Operating Permit for APG-Edgewood have been organized into the following categories:

1. Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed BEFORE June 4, 2010
2. Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed AFTER June 4, 2010
3. Space Heating Boilers rated GREATER THAN 5 MMBtu/hr. but LESS THAN 10 MMBtu/hr.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

4. Space Heating Boilers rated GREATER THAN 10 MMBtu/hr. constructed BEFORE June 4, 2010
5. NSPS Boilers
6. Emergency generator exempt from NSPS
7. NSPS emergency generators
8. Paint Spray Booths
9. CHP and HRSG

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

Equipment Removed

The following equipment were removed since the last renewal:

Former Emission Unit No.	ARA Registration No.	Comments
E1930-A01	4-0663	One (1) Burnham No. 2 fuel oil fired boiler rated at 1.743 million Btu per hour heat input.
E1930-A02	4-0664	One (1) Burnham No. 2 fuel oil fired boiler rated at 1.743 million Btu per hour heat input.
E3302-A01	4-0568	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 25.1 million Btu per hour heat input
E4110-A01	4-0114	Fuel oil space heating boiler.
E4160-A01	4-0115	Fuel oil space heating boiler.
E4301-A03	4-0560	One (1) Burnham No. 2 fuel oil fired boiler rated at 9.614 million Btu per hour heat input.
E4902-A01	4-0432	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.953 million Btu per hour
E5126-A04	4-0103	One (1) Union Iron Works natural gas/No. 2 fuel oil fired boiler rated at 32.0 million Btu per hour heat input

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

E5126-A05	4-0104	One (1) Union Iron Works natural gas/No. 2 fuel oil fired boiler rated at 32.0 million Btu per hour heat input
E5951-A01	4-0668	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.511 million Btu per hour heat input
E3081-A02	9-0369	One (1) Kohler diesel fired emergency generator set rated at 1088 hp.
E3081-A03	9-0230	One (1) KATO diesel fired emergency generator rated at 1,073 hp.
E3156-A01	9-0488	One (1) Kohler diesel fired emergency generator rated at 685 hp (510 kW).

Equipment added

The following equipment was issued Permits to construct since the last renewal:

Emission Unit No.	ARA Registration No.	Comments
26-E1930-A03	4-0725	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 9.95 MMBtu/hr. heat input.
26-E4160-A04	4-0723	One (1) Smith Cast Iron No. 2 oil fired boiler rated at 2.02 MMBtu/hr. heat input.
26-E4301-A04	4-0732	One (1) Unilux No. 2 oil fired boiler rated at 9.24 MMBtu/hr. heat input.
E3462-A01	9-0484	One Kohler emergency generator rated at 755 hp (500 kW) to be located outside building E4520 to support the Chemical Demilitarization Training Facility (CDTF). PTC issued 3/14/2014.
E3150	9-0545	One (1) Cummins diesel-fired emergency generator set rated at 2000-kW. Bldg, E3150

MACT and NSPS

APG-Edgewood Area is a minor source of HAPs and is subject to the following area source MACT standards (40 CFR Part 63):

1. Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants: Industrial, Commercial, and Institutional Boilers Area Sources.
2. Subpart ZZZZ—National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines.

APG-Edgewood Area is subject to the following New Source Performance Standards (NSPS) (40 CFR Part 60),

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

1. Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
2. Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
3. Subpart KKKK—Standards of Performance for Stationary Combustion Turbines
4. Subpart TTTT—Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units. "You are not subject to the requirements of this subpart if your affected EGU meets any of the conditions specified in paragraphs (b)(1) through (10) of this section. (4) Your EGU serves a generator along with other steam generating unit(s), IGCC, or stationary combustion turbine(s) where the effective generation capacity (determined based on a prorated output of the base load rating of each steam generating unit, IGCC, or stationary combustion turbine) is 25 MW or less." [Reference: **40 CFR 60.5509(b)**]. The cogeneration unit produces approximately 7.9MW of electric power.

APG-Edgewood Area is also subject to the NO_x Reasonably Available Control Technology (RACT) requirements.

Compliance Assurance Monitoring (CAM) Requirement.

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

The Aberdeen Proving Ground Combined Heat and Power (CHP) Plant (MDE Registration No. 025-0082-5-0366) consists of a dual fired combustion turbine (CT) driven generator, with a heat recovery steam generator (HRSG), and a selective catalytic reduction (SCR) system to control NO_x emissions. The Permit to Construct, issued on June 29, 2015, requires continuous compliance for NO_x as required by 40 CFR §60.4340. The Permittee elected to demonstrate

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

continuous compliance for NO_x by means of continuous parameter monitoring as defined in 40 CFR §60.4355.

The CHP Plant is subject to 40 CFR Part 60, Subpart KKKK and is subject to the following emission limits for NO_x emissions:

- While firing Natural Gas: 25 parts per million (ppm) NO_x at 15 percent oxygen or 290 nanogram per Joule (ng/J) of useful output [1.2 pound per megawatt-hour (lb./MWh)].
- While Firing Diesel Oil: 74 ppm NO_x at 15 percent oxygen or 460 ng/J of useful output (3.6 lb./MWh).

Compliance with the SO₂ limits in 40 CFR §60.4330 will be demonstrated by using fuel that complies with the sulfur content limits under 40 CFR §60.4365. Fuel quality characteristics in a "current, valid purchase contract, tariff sheet or transportation contract for the fuel" shall specify that the maximum total sulfur content for diesel is 0.05 weight percent.

The parameters to continuously monitor NO_x emissions are based upon the applicable requirements of 40 CFR 60.4340(b)(2) to "monitor appropriate parameters" and are organized into two categories: (1) fuel consumption and (2) SCR system operational parameters.

Fuel consumption monitoring instrumentation, in conjunction with performance characteristics that relate to NO_x output to heat output, is used to maintain NO_x control performance within the combustion turbine. Specifically, consumption of diesel fuel flow and natural gas flow to the combustion turbine as well as natural gas flow to the HRSG are monitored. Fuel consumption is used to estimate NO_x emissions based on emission factors specific to the CHP plant. Specifically, ammonia injection rate and SCR bed NO_x inlet flow are used to control NO_x outlet flow from the CHP plant.

To ensure that the SCR ammonia injection rate is appropriate, continuous readings from fuel flow meters are used in conjunction with emission factors to calculate NO_x flow into the SCR System. This value is input for the SCR system ammonia flow control logic to ensure the most efficient NH₃/NO_x ratio is achieved at the catalyst bed. The two most predominant NO_x removal reactions occurring on the catalyst bed require a one-to-one (or higher molar ratio of ammonia to NO_x). Thus, the NH₃/NO_x molar ratio is the primary indicator of NO_x emissions.

Since the performance of the catalyst bed can experience rapid degradation if it is operated approximately 45 degrees Fahrenheit below the recommended

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

minimum operating temperature of 400 °F, catalyst bed inlet temperatures are a secondary indicator. The acceptable temperature range in the catalyst bed is 400 to 600°F.

SCR system catalyst bed differential pressure is also monitored to provide another indicator of proper system operation. The measured value is not used to directly control an operating parameter of the CHP plant but provides an important indication of catalyst bed condition. A differential pressure significantly higher than the normal operating range of 1.2 to 2.5 inches of water could be indicative of SCR system degradation from sintering of the catalyst bed materials or plugging of the catalyst bed pores. Corrective maintenance activities will be required in the event of such degradation to the catalyst bed. Thus, differential pressure is another secondary indicator.

Fuel flow rate, both diesel fuel and natural gas, and ammonia injection rate are measured every minute and averaged over 15 minutes and 1-hour intervals. The data from the meters and detectors is transmitted to a computerized data acquisition system in 1 minute intervals; these discrete data points are averaged every hour. The hourly averaged data are used to ensure that NOx emissions are maintained below their limit for each 12 month rolling period.

EMISSION UNIT IDENTIFICATION

APG-Edgewood Area 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 Registration Number	Emissions Unit Name and Description	Date of Installation
Space Heating Boilers			
E1464-A01	4-0626	One (1) Burnham No. 2 fuel oil fired boiler rated at 1.62 million Btu per hour heat input	2008
E1958-A01	4-0660	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.092 million Btu per hour heat input	1988
E2188-A01	4-0627	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 4.184 million Btu per hour heat input	1987

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E4301-A02	4-0559	One (1) Burnham No. 2 fuel oil fired boiler rated at 9.614 million Btu per hour heat input.	1990
E4516-A03 & A04	4-0716	Two (2) Weil-McClain No. 2 fuel oil fired boilers each rated at 1.34 MMBtu/hr.	2015
E5664-A01	4-0545	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.120 million Btu per hour heat input	1996
E5828-A01& A02	4-0669 & 4-0670	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 8.162 million Btu per hour heat input	2004
E5840-A01	4-0650	One (1) Renzor No. 2 fuel oil fired boiler rated at 1.25 million Btu per hour heat input	2003
E3832-A02	4-0684	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.040 million Btu per hour heat input	2010
E4585-A02	4-0681	One (1) Smith No. 2 fuel oil fired boiler rated at 1.292 MMBtu/hr.	2010
E3312-A04 & A05	4-0571 & 4-0572	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 33.476 million Btu per hour heat input	1988
E3312-A01	4-0570	One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 33.476 million Btu per hour heat input	1987
26-E1930-A03	4-0725	One (1) Smith Cast Iron No. 2 fuel oil fired boiler rated at 2.02 MMBtu/hr. heat input.	2019
E2100-A03, A04 & A05	5-0329 thru 5-0331	Three (3) Aerco natural gas/No. 2 fuel oil fired boilers each rated at 3.0 million Btu per hour heat input	2012
E1574-A01	5-0311	One (1) Cleaver Brooks natural gas/No. 2 fuel oil fired boiler rated at 3.350 million Btu per hour heat input	2010
E1574-A02 & A03	5-0312 & 5-0313	Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 6.124 million Btu per hour heat input	2010

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E2100-A06 & A07	5-0316 & 5-0317	Two (2) Aerco Benchmark BMK-3.0 LN GWB natural gas fired boiler rated at 3.0 MMBtu/hr.	2010
E3844-A01 & A02	4-0700 & 4-0701	Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 2.00 million Btu per hour heat input	2012
E2194-A02	4-0695	One (1) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 1.68 million Btu per hour heat input.	2012
26-E4160-A04	4-0723	One (1) Cleaver Brooks No. 2 oil fired boiler rated at 9.95 MMBtu/hr. heat input.	2019
26-E4301-A04	4-0732	One (1) Unilux No. 2 oil fired boiler rated at 9.24 MMBtu/hr. heat input.	2023
E1950-A01	4-0665	One (1) Burnham No. 2 fuel oil fired boiler rated at 2.102 MMBtu/hr. heat input	1993
E2100-A01 & A02	5-0322 & 5-0333	Two (2) Cleaver Brooks gas/No. 2 fuel oil fired boilers each rated at 3.5 million Btu per hour heat input	2012
E5126-A06	4-0460	One (1) Cleaver Brooks No. 2 oil fired boiler rated at 37.4 MMBtu/hr. heat input	1985
NSPS Boilers			
26-E4160-A02	4-0506	One (1) No. 2 oil fired boiler rated at 12.55-MMBtu/hr. heat input	1994
26-E4160-A03	4-0523	One (1) No. 2 oil fired boiler rated at 12.55-MMBtu/hr. heat input	1990
26-E5126-A01 & A02	4-0543 & 4-0544	Two (2) Cleaver Brooks natural gas/No. 2 oil fired boilers each rated at 73.1-MMBtu/hr. heat input	1997
E2901-A04 thru A07	5-0306	Four (4) natural gas/No. 2 fuel oil fired boilers, each rated at 33.5 million Bu per hour heat input utilizing low NO _x burners located at MRICD.	2011
E2851-A01 thru A03	5-0347 thru 5-0349	Three (3) Superior natural gas/No.2 fuel oil fired boilers, each rated at 14.7 MMBtu/hr.	2018
E2851-A04 & A05	5-0350 & 5-0351	Two (2) English natural gas/No. 2 fuel oil fired boilers each rated at 14.7-MMBtu/hr.	2018
Spray Booths			

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E4301	6-0497 & 6-0498	Two (2) spray paint booths for R&D painting on plastic, metal and wood parts/pieces. PTC issued 4/16/2014.	2014
Emergency Generators			
E2100-A01	9-0453	One (1) Kohler diesel fired emergency generator sets, each rated at 940 hp (600-kW).	2012
E2800-A01	9-0448	One (1) Kohler diesel fired emergency generator set rated at 1881 hp	2012
E2390-A01	9-0465	One (1) Cummins diesel fired emergency generator set rated at 680 hp	2005
E2400-A01	9-0463	One (1) Katolight diesel fired emergency generator set rated at 1207 hp	2008
E3510-A01	9-0378	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp	2009
E3549-A01	9-0232	One (1) Cummins diesel fired emergency generator set rated at 1135 hp	1989
E3835-A01	9-0341	One (1) Cummins diesel fired emergency generator set rated at 900 hp	1991
E5146-A01	9-0339	One (1) Cummins diesel fired emergency generator set rated at 500 hp	2004
E5126-A11	9-0293	One (1) Cummins diesel fired emergency generator set rated at 635 hp	1996
E3566-A01	9-0464	One (1) MTU Onsite Energy diesel fired emergency generator set rated at 635 hp (400 kW)	2013
E3150-A01 thru A03	9-0278 thru 9-0280	Three (3) Cummins diesel fired emergency generator sets each rated at 1350 hp	1996
E3300-A01	9-0231	One (1) Cummins diesel fired emergency generator rated at 1490 hp	1990
E5100-A01	9-0379	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp (1500 kW).	2009
E1457-A01	9-0355	One (1) Detroit diesel fired emergency generator set rated at 2200 hp	2005

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
E3400-A01	9-0356	One (1) Caterpillar diesel fired emergency generator set rated at 1816 hp (1250 kW)	2005
E3401-A01	9-0380	One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.	2009
E2901-A01 thru A03	9-0402	Three (3) Caterpillar or equivalent Tier 1 diesel fired emergency generator sets each rated at 3673 hp (2500 kW) located at MRICD	2009
E3844-A03	9-0442	One (1) Kohler diesel fired emergency generator set rated at 1341 hp (1000 kW)	2012
E2851-A06 & A07	9-0485 & 9-0486	Two (2) Cummins diesel fired emergency generators each rated at 1280 kW (2923 hp).	2018
E3462-A01	9-0484	One Kohler emergency generator rated at 755 hp (500 kW) to be located outside building E4520 to support the Chemical Demilitarization Training Facility (CDTF). PTC issued 3/14/2014.	2014
E3857	9-0506	One (1) Kohler diesel fired emergency generator rated at 2923 hp.	2005
E3150	9-0545	One Cummins diesel-fired emergency generator set rated at 2682 horsepower.	2024
Cogeneration Unit (CHP)			
E5126-A10	5-0366	One (1) cogeneration unit consisting of a dual fired combustion turbine driven generator with a heat recovery steam generator (HRSG) to provide steam and approximately 7.9 MW of electric power.	2016

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.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

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

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

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

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

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

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

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET

Emissions Unit Number(s): Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed BEFORE June 4, 2010.

E1464-A01: One (1) Burnham No. 2 fuel oil fired boiler rated at 1.62 million Btu per hour heat input.

E1958-A01: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 2.092 million Btu per hour heat input.

E2188-A01: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 4.184 million Btu per hour heat input.

E5664-A01: One (1) Burnham No. 2 fuel oil fired boiler rated at 2.120 million Btu per hour heat input.

E3832-A02: One (1) Burnham No. 2 fuel oil fired boiler rated at 2.040 million Btu per hour heat input.

E4585-A02: One (1) Smith No. 2 fuel oil fired boiler rated at 1.292 million Btu per hour heat input.

E5840-E01: One (1) Reznor No. 2 fuel oil fired boiler rated at 1.73 MMBtu/hr.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards and Limits

A. Visible Emissions Limitations

1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

2. COMAR 26.1.09.05A(3), Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Demonstration

The Permittee shall:

- Properly operate and maintain boilers in a manner to prevent visible emissions
- Maintain an operations manual and preventive maintenance plan
- Maintain a log of maintenance performed that relates to combustion performance. **[Reference: COMAR 26.11.03.06C]**
- Report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Rationale for Periodic Monitoring

Boilers that burn natural gas or No. 2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr. typically never have visible emissions if properly operated and maintained. Boilers in this size range are designed to operate in an automatic mode without oversight of an operator. Therefore, the completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions are visible.

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall:

- Obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C].
- Retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C]

Rationale for Periodic Monitoring

The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F, Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
- a. Submit to the Department a list of each affected installation on the premises and the type 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.

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:
 1. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(c)]**.
 2. Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08F(1)(e)]**.
 3. An operations manual and preventive maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(b)]**.
 4. Records of fuel use that demonstrate that the boiler meets the definition of a space heater. **[Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C]**.
- The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08F(1)(e)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

D. Boiler MACT Tune-up

1. The Permittee 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. **[Reference: 40 CFR §63.11201(b)]**
2. The Permittee shall conduct an initial tune-up as specified in 40 CFR §63.11214, and conduct a tune-up of the boilers every 5 years as specified in 40 CFR §63.11223. **[Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**
3. These standards apply at all times, except during periods of startup and shutdown. **[Reference: 40 CFR §63.11201(d)]**
4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than 180 days after the compliance date that is specified in 40 CFR §63.11196 and according to the applicable provisions in 40 CFR §63.7(a)(2). **[Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]**

Compliance Demonstration

- The Permittee must conduct a performance tune-up every 5 years and no more than 61 months after the previous tune-up. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a) and (e)]**
- The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified in 40 CFR §63.11223(b)(1) through (7). **[Reference: 40 CFR §63.11223(b)(1) through (7) and (e)]**
- At all times the Permittee must operate and maintain 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 you 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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

procedures, review of operation and maintenance records, and inspection of the source. **[Reference: 40 CFR §63.11205(a)]**

- The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 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)]**

- 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)]**

- The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
 - d. 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) and 40 CFR §63.10(a)(5)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number(s): Space Heating Boilers rated LESS THAN or equal to 5 MMBtu/hr. constructed AFTER June 4, 2010.

E2100-A03, A04, & A05: Three (3) Aerco natural gas/No. 2 fuel oil fired boilers each rated at 3.0 million Btu per hour heat input.

E1574-A01: One (1) Cleaver Brooks natural gas/No. 2 fuel oil fired boiler rated at 3.350 million Btu per hour heat input.

E2100-A01 & A02: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 3.50 million Btu per hour heat input.

E3844-A01 & A02: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 2.00 million Btu per hour heat input.

E2194-A02: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 1.68 million Btu per hour heat input.

E2100-A06 & A07: Two (2) Aerco Benchmark BMK-3.0 LN GWB natural gas/No. 2 fuel oil fired boiler rated at 3.0 MMBtu/hr.

E4516-A03 & A04: Two (2) Weil-McLain No. 2 fuel oil fired boilers each rated at 1.34 MMBtu/hr.

E1930-A03: One (1) Smith Cast Iron No. 2 oil fired boiler rated at 2.02 MMBtu/hr. heat input.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits

A. Visible Emissions Limitations

1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

2. COMAR 26.1.09.05A(3), Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
- a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Demonstration

The Permittee shall:

- Properly operate and maintain boilers in a manner to prevent visible emissions
- Maintain an operations manual and preventive maintenance plan
- Maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]
- Report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations”

Rationale for Periodic Monitoring

Boilers that burn natural gas or No. 2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr. typically never have visible emissions if properly operated and maintained. Boilers in this size range are designed to operate in an automatic mode without oversight of an operator. Therefore, the completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions are visible.

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

Compliance Demonstration

The Permittee shall:

- Obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: COMAR 26.11.03.06C].
- Retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: COMAR 26.11.09.07C]

Rationale for Periodic Monitoring

The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F, Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
 - a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NOx 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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- 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.

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:
 1. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(c)]**.
 2. Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08F(1)(e)]**.
 3. An operations manual and preventive maintenance plan. **[Reference: COMAR 26.11.09.08F(1)(b)]**.
 4. Records of fuel use that demonstrate that the boiler meets the definition of a space heater. **[Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C]**.
- The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08F(1)(e)]**

D. Boiler MACT Tune-up

1. The Permittee 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. **[Reference: 40 CFR §63.11201(b)]**
2. The Permittee shall conduct a tune-up of the boilers every 5 years as specified in 40 CFR §63.11223. **[Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**
3. These standards apply at all times, except during periods of startup and shutdown. **[Reference: 40 CFR §63.11201(d)]**
4. The Permittee must achieve compliance with the provisions of 40 CFR Part 63 Subpart JJJJJJ upon startup of your affected source. **[Reference: 40 CFR §63.11196(c)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

5. The Permittee, so long as the boilers combust only ultra-low-sulfur liquid fuel as defined in §63.11237, is not subject to the PM emission limit in 40 CFR Part 63 Subpart JJJJJ Table 1 providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 CFR §63.11237, you must conduct a performance test within 60 days of burning the new fuel. **[Reference: 40 CFR §63.11210(f)]**
6. The Permittee is not required to complete an initial performance tune-up, but the Permittee is required to complete the applicable 5-year tune-up as specified in 40 CFR §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. **[Reference: 40 CFR §63.11210(g)]**

Compliance Demonstration

- The Permittee must conduct a performance tune-up every 5 years and no more than 61 months after the previous tune-up. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a) and (e)]**
- The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified in 40 CFR §63.11223(b)(1) through (7). **[Reference: 40 CFR §63.11223(b)(1) through (7) and (e)]**
- At all times the Permittee must operate and maintain 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 you 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)]**
- The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 as follows:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- 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)]
- 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)]
 - The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
 - d. 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) and 40 CFR §63.10(a)(5)]

Emissions Unit Number(s): Space Heating Boilers rated GREATER THAN 5 MMBtu/hr. but LESS THAN 10 MMBtu/hr.

E4301-A02: One (1) Burnham No. 2 fuel oil fired boiler rated at 9.614 million Btu per hour heat input.

E5828-A01 & A02: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 8.162 million Btu per hour heat input.

E1574-A02 & A03: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 6.124 million Btu per hour heat input.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

E4160-A04: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 9.95 MMBtu/hr. heat input.

E4301-A04: One (1) Unilux No. 2 oil fired boiler rated at 9.24 MMBtu/hr. heat input.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits:

A. Visible Emissions Limitations

1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."
2. COMAR 26.1.09.05A(3), Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Demonstration

The Permittee shall:

- Properly operate and maintain boilers in a manner to prevent visible emissions
- Maintain an operations manual and preventive maintenance plan
- Maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- Report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"

Rationale for Periodic Monitoring

Boilers that burn natural gas or No. 2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr. typically never have visible emissions if properly operated and maintained. Boilers in this size range are designed to operate in an automatic mode without oversight of an operator. Therefore, the completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions are visible.

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall:

- Obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. **[Reference: COMAR 26.11.03.06C].**
- Retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report fuel supplier certifications to the Department upon request. **[Reference: COMAR 26.11.09.07C]**

Rationale for Periodic Monitoring

The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
- a. Submit to the Department a list of each affected installation on the premises and the type 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.

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:
 1. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)].
 2. Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)].
 3. An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)].
 4. Records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C].

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08F(1)(e)]**

D. Boiler MACT Tune-up

1. The Permittee 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. **[Reference: 40 CFR §63.11201(b)]**
2. The Permittee shall Conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223. **[Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**
3. These standards apply at all times, except during periods of startup and shutdown. **[Reference: 40 CFR §63.11201(d)]**

Conditions 4 applies to EU 26-E4301-A02 & A03, 26-E5828-A01 & A02, and 26-E4225-A01, A02, & A03 only.

4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2). **[Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]**

Condition 5 thru 7 applies to EU 26-E1574-A02 & A03 only.

5. The Permittee must achieve compliance with the provisions of 40 CFR Part 63 Subpart JJJJJJ upon startup of your affected source. **[Reference: 40 CFR §63.11196(c)]**
6. The Permittee, so long as the boilers combust only ultra-low-sulfur liquid fuel as defined in §63.11237, is not subject to the PM emission limit in 40 CFR Part 63 Subpart JJJJJJ Table 1 providing you monitor and record on a monthly basis the type of fuel combusted. If you intend to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 CFR §63.11237, you must conduct a performance test within 60 days of burning the new fuel. **[Reference: 40 CFR §63.11210(f)]**
7. The Permittee is not required to complete an initial performance tune-up, but the Permittee is required to complete the applicable 5-year tune-up as specified in 40 CFR §63.11223 no later than 25 months or 61 months, respectively, after the initial startup of the new or reconstructed affected source. **[Reference: 40 CFR §63.11210(g)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Compliance Demonstration

- The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a)]**
- The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified in 40 CFR §63.11223(b)(1) through (7). **[Reference: 40 CFR §63.11223(b)(1) through (7) and (e)]**
- At all times the Permittee must operate and maintain 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 you 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)]**
- The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 as follows:
 - c. 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.
 - d. 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)]**
- 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)]**
- The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
- d. 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) and 40 CFR §63.10(a)(5)]

Emissions Unit Number(s): Space Heating Boilers rated GREATER THAN 10 MMBtu/hr. constructed BEFORE June 4, 2010.

26-E3312-A04 & A05: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 33.476 million Btu per hour heat input.

26-E3312-A01: One (1) Cleaver Brooks No. 2 fuel oil fired boiler rated at 33.476 million Btu per hour heat input.

26-E5126-A06: One (1) No. 2 fuel oil fired boiler rated at 37.4 MMBtu/hr.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits:

A. Visible Emissions Limitations

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."
2. COMAR 26.1.09.05A(3), Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Demonstration

The Permittee shall:

- Properly operate and maintain boilers in a manner to prevent visible emissions
- Maintain an operations manual and preventive maintenance plan
- Maintain a log of maintenance performed that relates to combustion performance. [Reference: COMAR 26.11.03.06C]
- Report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations"

Rationale for Periodic Monitoring

Boilers that burn natural gas or No. 2 fuel oil with a rated heat input capacity of less than 10 MM Btu/hr. typically never have visible emissions if properly operated and maintained. Boilers in this size range are set up to operate in an automatic mode without oversight of an operator. The completion of annual preventative maintenance as recommended by the boiler manufacturer, focusing on combustion performance, is sufficient to maintain compliance with the no visible emissions requirement. Even though there is not a specific schedule to perform observations of the stack emissions, the Permittee is required under the general reporting requirement for excess emissions and deviations to report incidents when visible emissions are visible.

B. Control of Sulfur Oxides

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

Compliance Demonstration

The Permittee shall:

- Obtain a certification from the fuel supplier indicating that the oil complies with the limitations on the sulfur content in fuel oil. [Reference: **COMAR 26.11.03.06C**].
- Retain fuel supplier certifications stating that the fuel oil is in compliance with this regulation. The Permittee shall report fuel supplier certifications to the Department upon request. [Reference: **COMAR 26.11.09.07C**]

Rationale for Periodic Monitoring

The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil.

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08F(1), Requirements for Space Heaters. A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:
 - a. Submit to the Department a list of each affected installation on the premises and the type of fuel used in each installation;
 - b. Develop an operating and maintenance plan to minimize NOx 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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- 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.

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:
 1. Records of maintenance performed that relates to combustion performance in keeping with the requirements of an operations and maintenance plan. [Reference: COMAR 26.11.09.08F(1)(c)].
 2. Record of training program attendance for each operator. [Reference: COMAR 26.11.09.08F(1)(e)].
 3. An operations manual and preventive maintenance plan. [Reference: COMAR 26.11.09.08F(1)(b)].
 4. Records of fuel use that demonstrate that the boiler meets the definition of a space heater. [Reference: COMAR 26.11.09.08K(3) and COMAR 26.11.03.06C].
- The Permittee shall submit: a record of training program attendance for each operator to the Department upon request. [Reference: COMAR 26.11.09.08F(1)(e)]

D. Boiler MACT Tune-up

1. The Permittee 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. [Reference: 40 CFR §63.11201(b)]
2. The Permittee shall conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223. [Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]
3. These standards apply at all times, except during periods of startup and shutdown. [Reference: 40 CFR §63.11201(d)]
4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2). [Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

5. The Permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (a) to (d) appropriate for the on-site technical hours listed in 40 CFR §63.11237:
- a. A visual inspection of the boiler system,
 - b. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
 - c. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
 - d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
 - e. A list of major energy conservation measures that are within the facility's control,
 - f. A list of the energy savings potential of the energy conservation measures identified, and
 - g. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. **[Reference: 40 CFR §63.11201(k)(3) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**

Compliance Demonstration

- The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified in 40 CFR §63.11223(b)(1) through (7). **[Reference: 40 CFR §63.11223(b)(1) through (7) and (e)]**
- At all times the Permittee must operate and maintain 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 you 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)]**
- The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 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)]**
- 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)]**
- The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- c. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
- d. 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) and 40 CFR §63.10(a)(5)]

Emissions Unit Number(s): NSPS Boilers

E4160-A02 & A03: Two (2) Cleaver Brooks No. 2 fuel oil fired boilers each rated at 12.5 million Btu per hour heat input.

E5126-A01 & A02: Two (2) Cleaver Brooks natural gas/No. 2 fuel oil fired boilers each rated at 73.1 million Btu per hour heat input.

E2901-A04 thru A07: Four (4) natural gas/No. 2 fuel oil fired boilers, each rated at 33.5 million Bu per hour heat input utilizing low NO_x burners located at MRICD.

E2851-A01, A02, & A03: Three (3) Superior natural gas/No. 2 fuel oil fired boilers each rated at 11.7 MMBtu/hr.

E2851-A04 & A05: Two (2) English natural gas/No. 2 fuel oil fired boilers each rated at 11.7 MMBtu/hr.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

A. Visible Emissions Limitations

- 1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.”

2. COMAR 26.1.09.05A(3), Exceptions. “Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.
3. The Permittee shall not cause to be discharged into the atmosphere from the 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. **[Reference: 40 CFR §60.43c(c)]**

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

4. The particulate matter and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction. **[Reference: 40 CFR §60.43c(d)]**

Compliance Demonstration

- The Permittee shall properly operate and maintain the boilers in a manner to prevent visible emissions; and verify no visible emissions when burning No. 2 fuel oil. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall perform a visual observation for a 6-minute period once for each 168 hours that the boiler burns oil or at a minimum of once per year. **[Reference: COMAR 26.11.03.06C]**
- 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, so that visible emissions are eliminated;
 - c. Document in writing the results of the inspections, adjustments and/or repairs to the boiler; and
 - d. After 48 hours, if the required adjustments and/or repairs had not eliminated the visible emissions, perform Method 9 observations once daily for 18 minutes until corrective actions have eliminated the visible emissions. **[Reference: COMAR 26.11.03.06C]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall maintain an operational manual and preventive maintenance plan on site; maintain a record of the maintenance performed that relates to combustion performance; maintain a log of visible emissions observations performed and make it available to the Department upon request; maintain a record of the hours that No.2 fuel oil is burned. [Reference: COMAR 26.11.03.06C]
- The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". [Reference: COMAR 26.11.01.07 and COMAR 26.11.03.06C]

Rationale for Periodic Monitoring

Boilers that burn Natural Gas fuel with No. 2 Fuel Oil as backup (or No. 2 fuel oil as primary) with a rated heat input capacity of more than 10 MM Btu/hr and less than 250 MM Btu/hr. rarely have visible emissions if properly operated and maintained. The Permittee is required to maintain on site an operations manual, a preventative maintenance plan, and records of maintenance performed that relate to combustion performance. If visible emissions occur, it will happen when burning No. 2 fuel oil. No. 2 fuel oil is burned only as a backup fuel. The Permittee is required to perform a visual observation of the exhaust gases from the boiler stack for a 6-minute period, once each 168 hours that fuel oil is burned. In mild winters, the hours of interrupted gas service may be less than 168 hours. At a minimum, one observation for visible emissions is required each year. The Permittee is required to maintain a record of the results of the observations and number of hours that No. 2 fuel oil is burned.

B. Control of Sulfur Oxides

1. COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."
2. The Permittee shall not cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb./million Btu) heat input; or 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 percent weight percent sulfur. [Reference: 40 CFR §60.42c(d)]

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

3. 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 40 CFR §60.48c(f). **[Reference: 40 CFR §60.42c(h)]**
4. The SO₂ emission limits and fuel oil sulfur limits requirements under this section apply at all times, including periods of startup, shutdown, and malfunction. **[Reference: 40 CFR §60.42c(i)]**

Compliance Demonstration

- The Permittee shall obtain a certification from the fuel supplier stating that the oil complies with the limitation on the sulfur content of the fuel oil. **[Reference: 40 CFR 60.44c(h)]**
- The Permittee shall maintain records of fuel supplier's certification and shall make records available to the Department upon request. **[Reference: 40 CFR 60.48c(e)]**
- The Permittee shall report fuel supplier certifications to the Department every six months. The report shall be postmarked by the 30th day following the end of the reporting period. **[Reference: 40 CFR 48c(j)]**

Rationale for Periodic Monitoring

The strategy for the compliance demonstration is based on the compliance demonstration for NSPS Subpart Dc boilers that burn fuel oil. The methodology for the compliance demonstration is based on the NSPS monitoring, record keeping, and reporting requirements for sulfur in fuel oil. See discussion of streamlining below.

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 1. 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.
 2. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.
2. COMAR 26.11.09.08E, Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 MMBtu/hr. or Less. A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 MMBtu/hr. or less shall:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- a. 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;
- b. Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;
- c. 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;
- d. 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
- 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.

Condition C3 applies to E2901-A04 thru A07 only.

3. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the MRICD Building. These emission units include E2901-A01 thru A07.
[Reference: MDE Permit to Construct No. 025-0082-5-0306 and 025-0082-9-0402]

Condition C4 applies to E2851-A01 thru A05

4. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the PHCL Building. These emission units include E2851-A01 thru A07.
[Reference: MDE Permit to Construct No. 025-0082-5-0347 thru 5-0351 and 025-0082-9-0485 & 9-0486]

Compliance Demonstration

- The Permittee shall perform a combustion analysis once a year.
[Reference: COMAR 26.11.09.08E(2)]
- The Permittee shall optimize combustion based on the annual combustion analysis. **[Reference: COMAR 26.11.09.08E(2)]**
- The Permittee shall maintain: combustion analysis results on-site for at least two (2) years and make this data available to the Department and the EPA upon request. Record of training program attendance for each operator at the site, and make these records available to the Department upon request. **[Reference: COMAR 26.11.09.08E(5)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall submit: a record of training program attendance for each operator to the Department upon request; results of combustion analysis to the Department and EPA upon request; record of combustion optimization training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08E(3) & (5)]**

D. Boiler MACT Tune-up

1. The Permittee 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. **[Reference: 40 CFR §63.11201(b)]**
2. The Permittee shall conduct an initial tune-up as specified in §63.11214, and conduct a tune-up of the boiler biennially as specified in §63.11223. **[Reference: 40 CFR §63.11201(b) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**
3. These standards apply at all times, except during periods of startup and shutdown. **[Reference: 40 CFR §63.11201(d)]**
4. The Permittee must demonstrate initial compliance with the applicable emission limits no later than March 21, 2014 and according to the applicable provisions in 40 CFR §63.7(a)(2). **[Reference: 40 CFR §63.11196(a)(1) and 40 CFR §63.11210(c)]**

Condition 5 applies to EU 26-E4160-A02 & A03 and 26-E5126-A01 & A02 only.

5. The Permittee must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. Energy assessor approval and qualification requirements are waived in instances where past or amended energy assessments are used to meet the energy assessment requirements. A facility that operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least 1 year between January 1, 2008, and the compliance date specified in §63.11196 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items (a) to (d) appropriate for the on-site technical hours listed in 40 CFR §63.11237:
 - a. A visual inspection of the boiler system,

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- b. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
- c. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
- d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
- e. A list of major energy conservation measures that are within the facility's control,
- f. A list of the energy savings potential of the energy conservation measures identified, and
- g. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. **[Reference: 40 CFR §63.11201(k)(3) and 40 CFR Part 63 Subpart JJJJJJ Table 2]**

Compliance Demonstration

- The Permittee must conduct a performance tune-up biennially. The tune-up must be conducted burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. **[Reference: 40 CFR §63.11223(a)]**
- The Permittee must conduct a tune-up of the boiler every 5 years to demonstrate continuous compliance as specified in 40 CFR §63.11223(b)(1) through (7). **[Reference: 40 CFR §63.11223(b)(1) through (7) and (e)]**
- At all times the Permittee must operate and maintain 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 you 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)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 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)]**

- 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)]**

- The Permittee must prepare by April 1 every five years, and submit to the Department with the annual certification report, a compliance certification report for the previous calendar year containing the following information:
 - a. Company name and address.
 - b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, 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. The following statement: "This facility complies with the requirements in §63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler."
 - d. 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) and 40 CFR §63.10(a)(5)]**

Emissions Unit Number(s): Emergency generator exempt from NSPS

E3549-A01: One (1) Cummins diesel fired emergency generator set rated at 1135 hp

E3835-A01: One (1) Cummins diesel fired emergency generator set rated at 900 hp

E3150-A01, A02, & A03: Three (3) Cummins diesel fired emergency generator sets each rated at 1350 hp.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

E3300-A01: One (1) Cummins diesel fired emergency generator rated at 1490 hp.

E1457-A01: One (1) Detroit diesel fired emergency generator set rated at 2200 hp.

E3400-A01: One (1) Caterpillar diesel fired emergency generator set rated at 1816 hp (1250 kW).

E2100-A01: One (1) Kohler diesel fired emergency generator set rated at 940 hp.

E2390-A01: One (1) Cummins diesel fired emergency generator set rated at 680 hp.

E5146-A01: One (1) diesel fired emergency generator rated at 500 hp.

E5126-A11: One (1) Cummins diesel fired emergency generator set rated at 635 hp.

E5146-A01: One (1) Cummins diesel fired emergency generator rated at 500 hp.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05E(2)**, Emissions During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
2. **COMAR 26.11.09.05E(3)**, Emissions During Operating Mode. "A person may not cause or permit the discharge of emissions from any

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

engine, operating at other than idle conditions, greater than 40 percent opacity.”

3. **COMAR 26.11.09.05E(4), Exceptions.**

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

Compliance Demonstration

- The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Reference: COMAR 26.11.03.06C]
- The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Reference: COMAR 26.11.03.06C]
- The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, “Report of Excess Emissions and Deviations” [Reference: COMAR 26.11.03.06C]

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

“A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent.”

Compliance Demonstration

- The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of the fuel oil. The Permittee shall maintain records of fuel supplier’s certification and

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

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

C. Control of Nitrogen Oxides

1. **COMAR 26.11.09.08B(5) - Operator Training**
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

2. **COMAR 26.11.09.08G – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less**
 - a. A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
 - i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - iii. Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;
 - iv. Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
 - v. Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

Compliance Demonstration

- The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. [Reference: COMAR 26.11.09.08G(1)(b)].

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall calculate the capacity factor within 30 days after the end of each month. If any engine operates more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion at least once every year. **[Reference: COMAR 26.11.03.06C].**
- The Permittee shall maintain a record of the calculated capacity factor. For any engine that operate more than 500 hours in a calendar year, the Permittee shall maintain records of the results of the combustion analyses on site for at least five years and make them available to the Department and EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C].**
- The Permittee shall maintain record of training program attendance for each operator on site for at least five years and make the records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) & COMAR 26.11.03.06C].**
- The Permittee shall submit records of combustion analysis performed and capacity factor of the equipment to the Department as part of the April 1 certification report. **[Reference: COMAR 26.11.03.06C].**
- The Permittee shall submit a list of trained operators to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtain approval from the Department to burn an alternate fuel. **[Reference: COMAR 26.11.02.09A]**
2. The Permittee must operate the emergency stationary RICE according to the requirements in the paragraphs of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements in the paragraphs of this section, the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and must meet all requirements for non-emergency engines.
 - a. There is no limit on emergency operation of the engine.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- b. The Permittee may operate the emergency engines for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine for a maximum of 100 hours per calendar year.

- c. The Permittee may operate the emergency engine for up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for the maintenance and testing and emergency response. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. **[Reference: 40 CFR §63.6640(f)(1), (2), and (4)]**

Compliance Demonstration

- The Permittee shall monitor fuel usage for the generator. **[Reference: COMAR 26.11.03.06C]**

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

- The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine; and
 - b. The installation date of the emergency diesel generator. **[Reference: COMAR 26.11.03.06C]**

- The Permittee shall send a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. **[Reference: COMAR 26.11.03.06C]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number(s): NSPS emergency generators

E2800-A01: One (1) Kohler diesel fired emergency generator set rated at 1881 hp.

E3510-A01: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.

E5100-A01: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp (1500 kW).

E3401-A01: One (1) Caterpillar diesel fired emergency generator set rated at 2206 hp.

E2901-A01, A02, & A03: Three (3) Caterpillar or equivalent Tier 1 diesel fired emergency generator sets each rated at 3673 hp (2500 kW) located at MRICD.

E3844-A03: One (1) Kohler diesel fired emergency generator set rated at 1341 hp (1000 kW).

E2400-A01: One (1) Katolight diesel fired emergency generator set rated at 1207 hp.

E3566-A01: One (1) MTU Onsite Energy diesel fired emergency generator set rated at 635 hp (400 kW).

E2851-A06 & A07: Two (2) Cummins diesel fired emergency generator rated at 2923 hp.

E3857: One (1) diesel fired emergency generator rated at 2923 hp (2000 kW).

E2100-A01: One Kohler diesel fired emergency generator rated at 940 hp.

E3462-A1: One Kohler emergency generator rated at 755 hp (500 kW) to support the Chemical Demilitarization Training Facility (CDTF).

E3150: One Cummins diesel-fired emergency generator set rated at 2682 horsepower.

Compliance Status

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits:

A. Control of Visible Emissions

1. **COMAR 26.11.09.05E(2), Emissions During Idle Mode.** "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
2. **COMAR 26.11.09.05E(3), Emissions During Operating Mode.** "A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity."
3. **COMAR 26.11.09.05E(4), Exceptions.**
 - a. "Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - b. Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - i. Engines that are idled continuously when not in service: 30 minutes;
 - ii. All other engines: 15 minutes.
 - c. Section E(2) and (3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics."

Compliance Demonstration

- The Permittee shall properly operate and maintain the engine in a manner to minimize visible emissions. [Reference: COMAR 26.11.03.06C]
- The Permittee shall retain records of preventive maintenance on site for at least five years and make these records available to the Department upon request. [Reference: COMAR 26.11.03.06C]

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

B. Control of Sulfur Oxides

COMAR 26.11.09.07A(2), Sulfur Content Limitations for Fuel.

"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (b) Distillate fuel oils, 0.3 percent."

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

Compliance Demonstration

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

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.

- a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
- b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

Condition C3 applies to E2901-A01 thru A03 only.

3. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the MRICD Building. These emission units include E2901-A01 thru A07. **[Reference: MDE Permit to Construct No. 025-0082-5-0306 and 025-0082-9-0402]**

Condition C4 applies to E2851-A06 and A07

4. The Permittee shall not emit more than 25 tons of NO_x per 12-month rolling average from any combination of emission units located in the PHCL Building. These emission units include E2851-A01 thru A07. **[Reference: MDE Permit to Construct No. 025-0082-5-0347 thru 5-0351 and 025-0082-9-0485 & 9-0486]**

Compliance Demonstration

- The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the engines that operates more than 500 hours during a calendar year. **[Reference: COMAR 26.11.09.08G(1)(b)]**
- For engines that operate more than 500 hours during a calendar year, the Permittee shall perform a combustion analysis and optimize combustion. **[Reference: COMAR 26.11.03.06C].**
- The Permittee shall calculate the capacity factor of the engine within 30 days after the end of each month. **[Reference: COMAR 26.11.03.06C]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall maintain records of the results of the combustion analyses and any stack tests on site for at least five years and make them available to the Department and EPA upon request. **[Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C]**.
- The Permittee shall maintain a record of the calculated capacity factor. **[Reference: COMAR 26.11.09.08G(1)(c)]**.
- The Permittee shall maintain record of training program attendance for each operator on site for at least five years and make the records available to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) & COMAR 26.11.03.06C]**
- The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 certification report. **[Reference: COMAR 26.11.03.06C]**.
- The Permittee shall submit a list of trained operators to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C]**

D. Operational Limits

1. The Permittee shall use diesel fuel only in the emergency generator unless the Permittee applies for and obtains a Permit to Construct from the Department to burn alternate fuel. **[Reference: COMAR 26.11.02.09A]**
2. The Permittee must operate and maintain the generators in a manner that achieve the emissions standards over the entire life of the engine. **[Reference: 40 CFR §60.4206]**
3. The Permittee must meet the non-road diesel fuel sulfur requirements of 40 CFR §80.510(b) as follows:
 - a. Maximum sulfur content 15 ppm and
 - b. Minimum cetane index of 40; or
 - c. Maximum aromatic content of 35 volume percent. **[Reference: 40 CFR §60.4207(b) and 40 CFR §80.510(b)]**
4. The Permittee must operate and maintain the stationary compression ignition internal combustion engines and control devices according to the manufacturer's emission related written instruction. **[Reference: 40 CFR §60.4211(a)(1)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

5. The Permittee may change only those emission related settings that are permitted by the manufacturer. **[Reference: 40 CFR §60.4211(a)(2)]**
6. The Permittee must purchase an engine certified to the emission standards in 40 CFR §60.4205(b). The engine must be installed and configured according to the manufacturer's emissions related specifications. **[Reference: 40 CFR §60.4211(c)]**
7. The Permittee must not exceed the following opacity emission standards:
 - a. 20 percent during the acceleration mode;
 - b. 15 percent during the lugging mode; and
 - c. 50 percent during the peaks in either the acceleration or lugging modes. **[Reference: 40 CFR §60.4205(b), §60.4202(a)(2), and §89.113(a)]**

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

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

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

electric grid or otherwise supply power as part of a financial arrangement with another entity. **[Reference: 40 CFR §60.4211(f)(3)]**

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

Compliance Demonstration

- The Permittee shall monitor fuel usage for the generator. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall maintain a log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation. **[Reference: COMAR 26.11.03.06C].**
- The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s):
 - a. Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine;
 - 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). **[Reference: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013]**
- Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years. **[Reference: MDE Permit to Construct No. 510-0077-9-1282 issued June 21, 2013]**
- The Permittee shall report a copy of the log for the emergency generator indicating the amount of fuel oil combusted, the hours of operation and the reason for generator operation to the Department in the annual emission certification report due on April 1 of each year. **[Reference: COMAR 26.11.03.06C]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emissions Unit Number(s): Paint Spray Booths

25-E4301-A01 & A02: Two (2) spray paint booths for R&D painting on plastic, metal and wood parts/pieces added in 2014 (MDE Registration No. 025-0082-6-0497 & 025-0082-6-0498). Located in Building E4301.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

Applicable Standards/Limits

A. Control of VOC

1. **COMAR 26.11.19.07-2B(1) – Plastic Parts and Business Machines Coating. Standards for Coating Installations.** “A person may not cause or permit the discharge into the atmosphere of any VOC from any installation listed in §B(2), (3), and (4) of this regulation in excess of the standards in §B(2), (3), and (4) of this regulation.”
2. **COMAR 26.11.19.07-2B(2) – Plastic Parts and Business Machines Coating. Plastic Parts Coating Standards:**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Coating Installation	Applicability (Pounds of VOC per day)	Pounds of VOC Per Gallon of Coating (As applied minus water)	Kilograms of VOC Per Liter of Coating (As applied minus water)
Decorative coating of other plastic parts	20	5.9	0.70
General, one-component	15	2.3	0.28
General, multi-component	15	3.5	0.42
Electric dissipating coatings and shock-free coatings	15	6.7	0.80
Extreme performance	15	3.5	0.42
Metallic	15	3.5	0.42
Military specification, one-component	15	2.8	0.34
Military specification, multi-component	15	3.5	0.42
Mold seal	15	6.3	0.76
Multi-colored coatings	15	5.7	0.68
Optical coatings	15	6.7	0.80
Plastic vehicle parts	20	3.0	0.36
Vacuum-metalizing	15	6.7	0.80
Vinyl	20	3.8	0.45

3. **COMAR 26.11.19.08D(1) – Metal Parts and Products Coating. Emission Standards.** “A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal furniture coating:”

Coating Type	Baked		Air-Dried	
	Lbs./gal	Kg/l	Lbs./gal	Kg/l
General, one-component	2.3	0.275	2.3	0.275

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

General, multi-component	2.3	0.275	2.8	0.340
Extreme performance	3.0	0.360	3.5	0.420
Metallic	3.5	0.420	3.5	0.420
Pretreatment	3.5	0.420	3.5	0.420
Solar absorbent	3.0	0.360	3.5	0.420
Extreme high gloss	3.0	0.360	2.8	0.340

4. **COMAR 26.11.19.08D(2) – Metal Parts and Products Coating. Emission Standards.** “A person subject to this regulation may not exceed the applicable VOC emission standards (expressed in terms of mass of VOC per volume of coating excluding water and exempt compounds, as applied) of the following table when applying a metal parts and products coating:”

Coating Type	Baked		Air-Dried	
	Lbs./gal	Kg/l	Lbs./gal	Kg/l
General, one-component	2.3	0.275	2.3	0.275
General, multi-component	2.3	0.275	2.8	0.340
Adhesion promoter	4.0	0.479	4.0	0.479
Prefabricated architectural one component and multi-component	2.3	0.280	3.5	0.420
Military specification	2.3	0.280	2.8	0.340
Extreme high-gloss; extreme performance; heat-resistant; high performance architectural; repair coating; solar absorbent; or touch up coating	3.0	0.360	3.5	0.420
Camouflage, electric-insulating varnish; etching filler; high temperature; metallic; mold-seal; pan backing; pretreatment; silicone release and vacuum-metalizing	3.5	0.420	2.8	0.420

5. **COMAR 26.11.19.32D – Control of Volatile Organic Compounds (VOC) from Wood Coating Operations. General Requirements.**
- a. “Spray Gun Application. A person subject to this regulation that applies a coating with a spray gun shall use a high volume-low pressure (HVLP) spray gun or other high efficiency application method approved by the Department.”
 - b. “Alternative Compliance Method. A person subject to this regulation may achieve compliance with the requirements of this regulation

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

through use of a control device that reduces emissions from the wood coating operation by not less than 90 percent overall.”

6. COMAR 26.11.19.32E – Control of Volatile Organic Compounds (VOC) from Wood Coating Operations. VOC Content Limits.

- a. “A person subject to this regulation shall meet the VOC content limits for coatings described in Table 1:”

Table 1		
VOC Content Limits of Coatings as Applied, Less Water and Exempt Compounds		
Coating Category	Grams per Liter	Pounds per Gallon
Stains	250	2.1
Washcoats, topcoats, and basecoats	420	3.5
Primers and sealers	200	1.7
Pigmented coatings	550	4.6
Clear topcoats	680	5.7
Conversion varnishes	725	6.1
Coating Category	Grams per Liter	Pounds per Gallon

- b. “Daily Weighted Average Option. A person may demonstrate compliance by showing that the daily weighted average VOC of all compliant and noncompliant coatings used is equal to or less than 398 grams per liter (3.3 pounds per gallon).”
- c. “A person subject to this regulation shall meet the VOC content limits for non-coating materials described in Table 2:”

Table 2		
VOC Content Limits of Non-Coating Materials as Applied, Less Water and Exempt Compounds		
Non-Coating Materials	Grams per Liter	Pounds per Gallon
Fillers	500	4.2
Paint removers and strippers	350	2.9
Adhesives	120	1.0

Compliance Demonstration

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall check the Material Safety Data Sheet (MSDS) to ensure that the VOC content of plastic (or wood) coatings is less than the applicable standard. The MSDS shall contain VOC data that is based on EPA Method 24 or equivalent. If non-compliant coatings are used, the Permittee shall maintain sufficient records to demonstrate that the emissions were less than 20 pounds per day based on a monthly average. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall check MSDS to ensure that the VOC content of metal coatings is less than the applicable standard. The MSDS shall contain VOC data based on EPA Method 24 or equivalent. If non-compliant coatings are used, the Permittee shall maintain sufficient records to demonstrate that the emissions were less than 20 pounds per day based on a monthly average. **[Reference: COMAR 26.11.03.06C]**
- **COMAR 26.11.19.32F(1) – Record Keeping Requirements.**
 - a. “A person subject to this regulation shall maintain a monthly record of:
 - i. The quantity of all coatings and materials used (liters); and
 - ii. Material data sheets, material lists, container labeling or records sufficient to show the VOC content of all coatings and materials used.”
 - b. “A person demonstrating compliance using the daily weighted average of coatings as provided in §E(2) of this regulation shall maintain records sufficient to show daily compliance.”
 - c. “Records shall be maintained for at least 2 years and made available to the Department upon request.”
- The Permittee shall maintain a copy of MSDS for each coating used. Records of material usage shall be maintained onsite for at least 5 years and shall be made available to the Department upon request. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall report material usage and VOC content of coatings to the Department annually in the Emission Certification Report. **[Reference: COMAR 26.11.03.06C]**

B. Good Operating Practices

1. **COMAR 26.11.19.02I(2) – Good Operating Practices, Equipment Cleanup and VOC Storage. Good Operating Practices.**
 - a. “A person who is subject to this section shall implement good operating practices to minimize VOC emissions into the atmosphere.”
 - b. “Good operating practices shall, at a minimum, include the following:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- i. Provisions for training of operators on practices, procedures, and maintenance requirements that are consistent with the equipment manufacturers' recommendations and the source's experience in operating the equipment, with the training to include proper procedures for maintenance of air pollution control equipment;
 - ii. Maintenance of covers on containers and other vessels that contain VOC and VOC-containing materials when not in use;
 - iii. Minimize spills of VOC-containing cleaning materials;
 - iv. Convey VOC-containing cleaning materials from one location to another in closed containers or pipelines;
 - v. Minimize VOC emissions from cleaning of storage, mixing, and conveying equipment;
 - vi. As practical, scheduling of operations to minimize color or material changes when applying VOC coatings or other materials by spray gun;
 - vii. For spray gun applications of coatings, use of high volume low pressure (HVLP) or other high efficiency application methods where practical; and
 - viii. As practical, mixing or blending materials containing VOC in closed containers and taking preventive measures to minimize emissions for products that contain VOC. "
- c. "A person subject to this regulation shall:
- i. Establish good operating practices in writing;
 - ii. Make the written operating practices available to the Department upon request; and
 - iii. Display the good operating practices so that they are clearly visible to the operator or include them in operator training."
2. **COMAR 26.11.19.021(3) – Good Operating Practices, Equipment Cleanup and VOC Storage. Equipment Cleanup.**
- a. "A person subject to this section shall take all reasonable precautions to prevent or minimize the discharge of VOC into the atmosphere when cleaning process and coating application equipment, including containers, vessels, tanks, lines, and pumps."
 - b. "Reasonable precautions for equipment cleanup shall, at a minimum, include the following:
 - i. Storing all wastes and waste materials, including cloth and paper that are contaminated with VOC, in closed containers;
 - ii. Preparing written standard operating procedures for frequently cleaned equipment, including, when practical, provisions for the use of low-VOC or non-VOC materials and procedures to minimize the quantity of VOC materials used;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- iii. Using enclosed spray gun cleaning, VOC-recycling systems and other spray gun cleaning methods where practical that reduce or eliminate VOC emissions; and
 - iv. Using, when practical, detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines, containers, and process equipment.”
3. **COMAR 26.11.19.02I(4) – Good Operating Practices, Equipment Cleanup and VOC Storage. VOC Storage and Transfer.**
- a. “A person subject to this section who stores VOCs shall, at a minimum, install conservation vents or other vapor control measures on storage tanks with a capacity of 2,000 gallons or more to minimize VOC emissions.”
 - b. “A person subject to this section shall, at a minimum, utilize vapor balance, vapor control lines, or other vapor control measures when VOCs are transferred from a tank truck into a stationary storage tank with a capacity greater than 10,000 gallons and less than 40,000 gallons that store VOCs or materials containing VOCs, other than gasoline, that have a vapor pressure greater than 1.5 psia.”
4. **COMAR 26.11.19.16C – Control of VOC Leaks. General Requirements.**
“A person subject to this regulation shall comply with all of the following requirements:
- a. Visually inspect all components on the premises for leaks at least once each calendar month.
 - b. Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date the leak was discovered, and the name of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
 - c. Take immediate action to repair all observed VOC leaks that can be repaired within 48 hours.
 - d. Repair all other leaking components not later than 15 days after the leak is discovered. If a replacement part is needed, the part shall be ordered within 3 days after discovery of the leak, and the leak shall be repaired within 48 hours after receiving the part.
 - e. Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.
 - f. Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

number. The log shall be made available to the Department upon request. Leak records shall be maintained for a period of not less than 2 years from the date of their occurrence.”

5. **COMAR 26.11.19.16D – Control of VOC Leaks. Exceptions.** “Components that cannot be repaired as required in this regulation because they are inaccessible, or that cannot be repaired during operation of the source, shall be identified in the log and included within the source's maintenance schedule for repair during the next source shutdown.”

Compliance Demonstration

- The Permittee shall conduct facility-wide inspections at least once per calendar month to determine the compliance status of facility operations with regard to implementation of “good operating practices” designed to minimize emissions of VOC. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall:
 - a. Visually inspect all components (process equipment, storage tanks, pumps, compressors, valves, flanges, pipeline fittings, pressure relief valves) at the facility for VOC leaks at least once each calendar month;
 - b. Tag any VOC leak immediately with I.D. Number, the date VOC leak was discovered and the name of the person who discovered the VOC leak. The tag is to remain in place until the VOC leak is repaired;
 - c. Take immediate action to repair/control all observed VOC leaks that can be repaired within 48 hours;
 - d. Repair all other VOC leaking components not later than 15 days after the VOC leak is discovered in accordance with COMAR 26.11.19.16C(4);
 - e. If a replacement part is needed, it shall be ordered within 3 days after discovery of the VOC leak and the leak shall be repaired within 48 hours after receiving the part;
 - f. Maintain a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced; and
 - g. Identify in a log components that cannot be repaired as required by this regulation because they are inaccessible, or that cannot be repaired during operation of the source, and include them within the source's maintenance schedule for repair during the next source shutdown. **[Reference: COMAR 26.11.19.16C and D]**
- The Permittee shall maintain:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- a. Written descriptions of all “good operating practices” designed to minimize emissions of VOC from facility-wide operations. **[Reference: COMAR 26.11.19.02I]**
- b. Records of all inspections conducted to determine the facility's compliance status with regard to implementation of “good operating practices” designed to minimize emissions of VOC from facility-wide operations. The records shall include for each inspection the name of the inspector, the date and time of the inspection, and an account of the findings. **[Reference: COMAR 26.11.03.06C]**
- The Permittee shall:
 - a. Maintain a log that includes the name of the person conducting the inspection, the date on which VOC leak inspection was made, the findings of the inspection, a list of VOC leaks by tag identification number, the date the part was ordered, and the date the VOC leak was repaired; and
 - b. Make the log available to the Department upon request and shall be maintained for a period of not less than two years from the date of the VOC leaks' occurrence. **[Reference: COMAR 26.11.19.16C(6)]**
- Good operating practices information as required by COMAR 26.11.19.02I shall be made available to the Department upon request.
- VOC Leak inspection logs as required by COMAR 26.11.19.16 shall be made available to the Department upon request.

Emissions Unit Number(s): CHP and HRSG

26-E5126-A10: One (1) Cogeneration unit consisting of a dual fired combustion turbine driven generator with a heat recovery steam generator (HRSG) to provide steam and approximately 7.9 MW of electric power.

Compliance Status

The latest Full Compliance Evaluation for APG-Edgewood was performed by the Department on July 26, 2022. During the inspection, records were reviewed, and observations were performed to assess APG's compliance status with their Part 70 Title V operating permit and COMAR. Records from January 2022 onward were checked. Site managers for each facility were met with and corroborated the records given. A Method 9 was conducted for the stack of the Cogen plant. Based on the inspection and APG's actions taken to address their monitoring and record keeping deviations, the Department determined that APG-Edgewood is in compliance with their Title V operating Permit.

US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET

Applicable Standards/Limits:

A. Control of Visible Emissions

1. COMAR 26.11.09.05A(2), Fuel Burning Equipment. "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity."
2. COMAR 26.1.09.05A(3), Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:
 - a. The visible emissions are not greater than 40 percent opacity; and
 - b. The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

Compliance Demonstration

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

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

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations". **[Reference: COMAR 26.11.03.06C]**

B. Control of Sulfur Oxides

1. COMAR 26.11.09.07A(2)(b) – Control of Sulfur Oxides From Fuel Burning Equipment. Sulfur Content Limitations for Fuel. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (b) Distillate fuel oils, 0.3 percent."
2. COMAR 26.11.09.07C – Control of Sulfur Oxides From Fuel Burning Equipment. Request for Analyses. "Any person offering to sell or deliver

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

fuel or any person responsible for equipment in which fuel or process gas is burned, upon request, shall submit to the Department or control officer such analyses of fuel or process gas as may be required to determine compliance with this regulation.”

3. The Permittee must not cause to be discharged into the atmosphere from the subject stationary combustion turbine any gases which contain SO₂ in excess of 110 nanograms per Joule (ng/J) (0.90 pounds per megawatt-hour (lb./MWh)) gross output. **[Reference: 40 CFR §60.4330(a)(1)]**
4. The Permittee must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO₂/J (0.060 lb. SO₂/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. **[Reference: 40 CFR §60.4330(a)(2)]**

Compliance Demonstration

- The Permittee shall conduct performance test for SO_x in accordance with the methodologies specified in 40 CFR §60.4415. **[Reference: 40 CFR §60.4415(a)]**
- The Permittee must monitor the total sulfur content of the fuel being fired in the turbine, except as provided in 40 CFR §60.4365. The sulfur content of the fuel must be determined using total sulfur methods described in 40 CFR §60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084, D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR §60.17), which measure the major sulfur compounds, may be used. **[Reference: 40 CFR §60.4360]**
- The Permittee may elect not to monitor the total sulfur content of the fuel combusted in the turbine, if the fuel is demonstrated not to exceed potential sulfur emissions of 26 ng SO₂/J (0.060 lb. SO₂/MMBtu) heat input for units located in continental areas and 180 ng SO₂/J (0.42 lb. SO₂/MMBtu) heat input for units located in noncontinental areas or a continental area that the Administrator determines does not have access to natural gas and that the removal of sulfur compounds would cause more environmental harm than benefit. **[Reference: 40 CFR §60.4365]**
- If the Permittee elects not to demonstrate sulfur content using options in 40 CFR §60.4365, and the fuel is supplied without intermediate bulk

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

storage, the sulfur content value of the gaseous fuel must be determined and recorded once per unit operating day. [Reference: 40 CFR §60.4370]

- So long as the Permittee monitors sulfur content of the fuel, excess emissions and monitoring downtime are defined as follows:
 - a. For samples of gaseous fuel and for oil samples obtained using daily sampling, flow proportional sampling, or sampling from the unit's storage tank, an excess emission occurs each unit operating hour included in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.
 - b. If the option to sample each delivery of fuel oil has been selected, you must immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. You must continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and you must evaluate excess emissions according to paragraph (a) of this section. When all of the fuel from the delivery has been burned, you may resume using the as-delivered sampling option.
 - c. A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. [Reference: 40 CFR §60.4385]

- The Permittee must submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions must be reported for all periods of unit operation, including start-up, shutdown, and malfunction. All reports required under §60.7(c) must be postmarked by the 30th day following the end of each 6-month period. [Reference: 40 CFR §60.4375(a) and §60.4395]

C. Control of Nitrogen Oxides

1. COMAR 26.11.09.08B(5), Operator Training.
 - a. For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.
 - b. The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

2. 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.
- a. "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:
- i. Provide certification of the capacity factor of the equipment to the Department in writing;
 - ii. For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
 - iii. Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request."
- b. "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."
3. The Permittee must meet the emission limits specified in 40 CFR Part 60, Subpart KKKK, Table 1. If your total heat input is greater than or equal to 50 percent natural gas, you must meet the corresponding limit for a natural gas-fired turbine when you are burning that fuel. Similarly, when your total heat input is greater than 50 percent distillate oil and fuels other than natural gas, you must meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that you burn that particular fuel. [Reference: 40 CFR §60.4325 and 40 CFR Part 60, Subpart KKKK Table 1]

Table 1 to Subpart KKKK of Part 60—Nitrogen Oxide Emission Limits for New Stationary Combustion Turbines		
Combustion turbine type	Combustion turbine heat input at peak load (HHV)	NO_x emission standard
New turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 percent O ₂ or 150 ng/J of useful output (1.2 lb./MWh).
New turbine firing fuels other than natural gas	>50 MMBtu/h and ≤ 850 MMBtu/h	74 ppm at 15 percent O ₂ or 460 ng/J of useful output (3.6 lb./MWh).

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

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

5. In order to exempt the Cogeneration project from major new source review, NO_x emissions from the combustion turbine shall be limited to less than 25 tons per year for any 12-month rolling period. **[Reference: MDE Permit to Construct No. 025-0082-5-0366]**

Compliance Demonstration

- The Permittee shall perform a combustion analysis once a year. **[Reference: COMAR 26.11.09.08E(2)]**

- The Permittee must perform annual performance tests in accordance with §60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, you may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, you must resume annual performance tests. **[Reference: 40 CFR §60.4340(a)]**

- As an alternative to the annual performance testing required in 40 CFR §60.4340(a), the Permittee may install, calibrate, maintain and operate one of the following continuous monitoring systems:
 - a. Continuous emission monitoring as described in §60.4335(b) and §60.4345, or
 - b. Continuous parameter monitoring as follows:
 - i. For any turbine that uses SCR to reduce NO_x emissions, you must continuously monitor appropriate parameters to verify the proper operation of the emission controls. **[Reference: 40 CFR §60.4340(b)]**

- The Permittee shall conduct performance test for NO_x in accordance with the methodologies specified in 40 CFR §60.4400. **[Reference: 40 CFR 60.4400(a)]**

- The Permittee shall optimize combustion based on the annual combustion analysis. **[Reference: COMAR 26.11.09.08E(2)]**

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- The Permittee shall demonstrate continuous compliance with NO_x in accordance with 40 CFR §60.4340 as follows:
 - a. If the Permittee is not using water or steam injection to control NO_x emissions, The Permittee must perform annual performance tests in accordance with 40 CFR §60.4400 to demonstrate continuous compliance. If the NO_x emission result from the performance test is less than or equal to 75 percent of the NO_x emission limit for the turbine, The Permittee may reduce the frequency of subsequent performance tests to once every 2 years (no more than 26 calendar months following the previous performance test). If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit for the turbine, The Permittee must resume annual performance tests.
 - b. As an alternative, you may install, calibrate, maintain and operate one of the following continuous monitoring systems:
 - i. Continuous emission monitoring as described in 40 CFR §60.4335(b) and 40 CFR §60.4345, or
 - ii. For a diffusion flame turbine without add-on selective catalytic reduction (SCR) controls, the Permittee must define parameters indicative of the unit's NO_x formation characteristics, and you must monitor these parameters continuously.

- The Permittee shall establish and document an appropriate parametric monitoring plan in accordance with 40 CFR §60.4355. The plan shall include, but not be limited to:
 - a. Selection of indicators to be monitored,
 - b. Ranges of indicators,
 - c. Process used to obtain representative data,
 - d. Quality assurance,
 - e. Frequency of monitoring, and
 - f. Justification for the proposed elements of monitoring. **[Reference 40 CFR §60.4355]**

- So long as the Permittee has chosen to monitor combustion parameters or parameters indicative of proper operation of NO_x emission controls in accordance with 40 CFR §60.4340, the appropriate parameters must be continuously monitored and recorded during each run of the initial performance test, to establish acceptable operating ranges, for purposes of the parameter monitoring plan for the affected unit, as specified in 40 CFR §60.4355. **[Reference: 40 CFR §60.4410]**

- Periods of excess emissions and monitor downtime that must be reported are defined as follows:

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- a. An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
- b. A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid. **[Reference: 40 CFR §60.4385]**

- The Permittee shall maintain:
 - a. Records of the results of the annual combustion analysis on site. **[Reference: COMAR 26.11.09.08E(5)]**
 - b. Record of training program attendance for each operator at the site. **[Reference: COMAR 26.11.09.08E(5)]**

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

- The Permittee must 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. **[Reference: 40 CFR §60.4375(b)]**

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

COMPLIANCE SCHEDULE

APG-Edgewood is currently in compliance with all applicable air quality regulations, with the following exceptions:

- Ozone Depleting Regulations require that certain records are maintained by APG for ozone depleting substances. APG Policy #DPW-24 for Clean Air Act Compliance Management, Recording, and Reporting Requirements for Refrigeration Systems was signed in December 2015, to ensure compliance with the recordkeeping and reporting requirements specified in the Title V permits for APG and applicable regulations. APG has an inventory of over 1,000 pieces of equipment containing ozone depleting substances. Maintenance is performed by nation-wide certified contractors. These contractors maintain records of leak repair. The Permittee has not verified that these records comply with each condition of the regulations. APG

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Directorate of Public Works (DPW) is in the process of consolidating all appliances at APG under their maintenance contracts.

- Boilers Subject to NSPS requirements are to have annual combustion optimizations. The annual combustion optimization for unit 26-E5126-A01 could not be conducted in 2018 due to a safety issue. The issue was resolved, and the combustion optimization was conducted in January 2019.
- Emergency generators not subject to NSPS Subpart IIII requirements are to have RICE MACT tune-ups annually or if they operate 500 hours, whichever comes first. Tune-up and maintenance records are to be maintained in accordance with the maintenance plan. Maintenance records were not maintained for emergency generator 08-E1457-A01 from June 16 to December 31, 2018. Maintenance records were not maintained for emergency generator 06-E3300-A01 from February 16 to December 31, 2018.
- Reports of excess emissions and monitor downtime are to be submitted semi-annually for the CHP Unit. There is no record that semi-annual excess emissions and monitor downtime reports for the CHP Unit were submitted for the reporting period. Semi-annual excess emissions and monitor downtime reports for the reporting period were submitted to the Department on May 17, 2019. Reports for 2017 and 2018 were also submitted to the Department.

TITLE IV – ACID RAIN

Not Applicable

TITLE VI – OZONE DEPLETING SUBSTANCES

APG-Edgewood Area is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

APG-Edgewood Area is subject to the requirements of Section 112(r). A Risk Management plan for the Edgewood Area has been submitted.

PERMIT SHIELD

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

The APG-Edgewood Area facility 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.

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. 31 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 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.

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.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- (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:

- (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;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- (5) Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;
- (6) Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;
- (7) Confection cookers where the products are edible and intended for human consumption;
- (8) Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;
- (9) Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;
- (10) Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;
- (11) 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;
- (12) Containers, reservoirs, or tanks used exclusively for:
- (a) Storage of butane, propane, or liquefied petroleum, or natural gas;
- (b) No. 208 Storage of lubricating oils;
- (c) No. 165 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

- (d) No. 4 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;
- (e) No. 1 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;
- (13) 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;
- (14) 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;
- (15) Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;
- (16) Firing and testing of military weapons and explosives;
- (17) Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;
- (18) Laboratory fume hoods and vents;
- (19) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 Stereolithography machine and parts washer/rinser.

No. T See Table Below

Reference: Memorandum dated August 2, 1996 from John S. Seitz, Director of Office of Air Quality Planning and Standards (MD-10); Subject: Major Source Determination for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act.

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

Emission Unit No.	ARA Registration Number	Emission Unit Description	Facility Description
E4010 -A01 through A03	9-0151	Three underground gasoline storage tanks	AAFES (Mini Mart)
E2172-A01	9-0151	One 2,500-gallon underground gasoline storage tank.	Gunpowder Boat Club
E4040-A91	4-0623	Fuel Oil Boiler (2.163 MMBtu)	Maryland Army National Guard
E4651-A01	4-0501	Fuel Oil Boiler	Gunpowder Boat Club
E4081-A01 & A02	4-0685 & 4-0686	Two (2) Smith Cast Iron Fuel Oil Boilers (3.978 MMBtu)	Maryland Army National Guard
E4081-A03 & A04	4-0698 & 4-0699	Two (2) Unilux Fuel Oil Boilers (4.2 MMBtu)	Maryland Army National Guard
E1902-A01	5-0171	One (1) H.B. Smith natural gas fired boiler rated at 1.491 million Btu per hour heat input	Youth Center
E4305-A02 & A03	4-0702 & 4-0703	Two (2) Smith No. 2 fuel oil fired boilers each rated at 2.836 MMBtu/hr.	Maryland Army National Guard

STATE ONLY ENFORCEABLE REQUIREMENTS

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

1. Applicable Regulations:
 - a. COMAR 26.11.06.08 – Nuisance. An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution.”
 - b. COMAR 26.11.06.09 - Odors. “A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the

**US ARMY GARRISON ABERDEEN PROVING GROUND
EDGEWOOD AREA
PERMIT NO. 24-025-0082
PART 70 OPERATING PERMIT FACT SHEET**

property line in such a manner that a nuisance or air pollution is created.”

- c. 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.
- d. 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.