

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

**FACT SHEET AND STATEMENT OF BASIS
FOR PROPOSED PERMITTING ACTION
UNDER 20 DCMR 300 (TITLE V-OPERATING PERMIT PROGRAM)**

This “Fact Sheet and Statement of Basis” has been prepared pursuant to 20 DCMR 303.1(c) and 40 CFR 70.7(a)(5).

PERMIT NO: 004-R1

APPLICANT AND PERMITTEE:

Department of the Army
Base Realignment and Closure Division
600 Army Pentagon
Washington, DC 20310

FACILITY LOCATION:

Former Walter Reed Army Medical Center
6900 Georgia Avenue NW
Washington, DC 20307

FACILITY DESCRIPTION:

The Walter Reed Army Medical Center (WRAMC) was formerly a provider of medical services for the United States Army. It is now closed and operated by a caretaker staff. It is covered by Standard Industrial Classification (SIC) code 9199 (General Government – Not Elsewhere Classified) and North American Industrial Classification System (NAICS) code 921190 (Other General Government Support). The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. The previous Title V permit (issued on July 28, 2000) listed four boilers, 23 emergency generators, and a degreaser. However, because medical operations ceased at the facility, numerous units have been decommissioned and removed since that time. Based on the updated Title V permit application dated May 27, 2014 and subsequent updates, this draft Title V permit identifies the following sources of air emissions at the facility:

- Three (3) large boilers (greater than 5 MMBTU/hr): including two (2) dual fuel boilers classified as “gas-fired” that burn No. 2 fuel oil only in the event of natural gas service interruptions and one (1) natural gas boiler;
- Eleven (11) diesel fired emergency generators not subject to New Source Performance Standards (NSPS);
- One (1) gasoline tank with associated dispensing station;
- Eleven (11) aboveground storage tanks;
- Three (3) underground storage tanks;

EMISSIONS SUMMARY:

The following represents the potential emissions from the facility:

FACILITYWIDE EMISSIONS SUMMARY [TONS PER YEAR]	
Pollutants	Potential Emissions
Sulfur Dioxide (SO ₂)	41.9*
Oxides of Nitrogen (NO _x)	27.0*
Total Particulate Matter, including condensables (PM Total)	23.6
Volatile Organic Compounds (VOC)	6.4
Carbon Monoxide (CO)	46.0*

* Note that the facility reported significantly higher potential emissions of these pollutants in their permit application, but neglected to consider facility-wide emission limits put in place in 1995, in part to avoid non-attainment New Source Review (NSR) and Prevention of Significant Deterioration (PSD) requirements. These emission limits remain in effect as limits to the potential to emit of the facility.

BASIS OF 20 DCMR CHAPTER 3 (TITLE V) APPLICABILITY:

As noted above, WRAMC has the potential to emit (PTE) 27.0 tons of NO_x. This exceeds the major source threshold in the District of Columbia of 25 TPY of NO_x. Because potential emissions of NO_x exceeds the relevant major source threshold, pursuant to 20 DCMR 300.1(a), the source is subject to Chapter 3 and must obtain an operating permit in accordance with that regulation and Title V of the federal Clean Air Act.

Note that for other pollutants, when facility-wide emission limits are considered, the facility's potential to emit does not exceed any other major source thresholds.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the draft Title V operating permit are based on underlying requirements of 20 DCMR as well as various federal regulations promulgated pursuant to the federal Clean Air Act. The regulations that are the basis of each condition are cited in the permit, except those conditions added to make another condition, with a direct underlying regulation, enforceable as a practical matter may, in some cases, not have a specific citation. These latter, un-cited conditions generally consist of monitoring, record keeping, and reporting requirements authorized under 20 DCMR 500.1.

The draft Title V permit has been developed to incorporate the requirements of all applicable requirements as defined in 20 DCMR 399.1 along with additional conditions necessary to make all such requirements enforceable as a practical matter.

Any condition of the draft Title V permit that is enforceable by the District but is not federally-

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enforceable is identified in the draft Title V permit as such with an asterisk.

It should also be noted that this permit is being issued pursuant to the District's authority under 20 DCMR Chapter 2 as well as Chapter 3. When the permit is issued for public review, the public notice will reflect this fact.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in notes below):

Federal and District Enforceable:

- 20 DCMR Chapter 1 - General Rules
- 20 DCMR Chapter 2 - General and Non-Attainment Area Permits
- 20 DCMR Chapter 3 - Operating Permits and Acid Rain Programs
- 20 DCMR 500 - Records and Reports
- 20 DCMR 501 - Monitoring Devices
- 20 DCMR 502 - Sampling, Tests, and Measurements
- 20 DCMR 600 - Fuel-Burning Particulate Emission
- 20 DCMR 604 - Open Burning
- 20 DCMR 605 - Control of Fugitive Dust
- 20 DCMR 606 - Visible Emissions
- 20 DCMR 700 - Miscellaneous Volatile Organic Compounds (VOCs)
- 20 DCMR 774 - Architectural and Industrial Maintenance Coatings
- 20 DCMR 800 - Control of Asbestos
- 20 DCMR 801 - Sulfur Contents of Fuel Oils
- 20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen
- 40 CFR 51.212, 52.12, 52.30, 60.11, and 61.12 - Credible Evidence
- 40 CFR 51 Appendix P - Minimum Emissions Monitoring Requirements
- 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60 Appendix F - Quality Assurance Procedures
- 40 CFR 82, Subpart G - Protection of Stratospheric Ozone (Federally enforceable only except through Title V) (*Note: Air Quality Division [AQD] did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)
- 40 CFR 82, Subpart H - Halon Emissions Reduction (Federally enforceable only except through Title V) (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)

District Enforceable Only:

- 20 DCMR 402 – Chemical Accident Prevention (*Note: AQD did not make a positive*

determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.)

- 20 DCMR 900 - Engine idling
- 20 DCMR 901 - Vehicular exhaust emissions
- 20 DCMR 902 - Lead Content of Gasoline
- 20 DCMR 903 - Odorous or other nuisance air pollutants

20 DCMR 606 – Visible Emissions

WRAMC has historically been subject to the requirements of this section as normally applicable for the types of equipment they have. This is unchanged in this permit, except for one significant exception. During the permitting process, it was noted that, because the three main boilers (Boilers #2, #3, and #4) are monitored by a continuous opacity monitoring system (COMS) visible emission readings below 5% are regularly observed. It is the nature of COMS readings to fluctuate slightly. Even if emissions are not visible to the naked eye, the COMS readings can regularly fluctuate around 0% opacity in an approximate range of -5% to 5% opacity. WRAMC has historically used the COMS data acquisition and reporting equipment to filter out such fluctuations, but this is inconsistent with the baseline 0% standard in 20 DCMR 606.1 that is applicable to the equipment since it was installed after January 1, 1977.

In November 2012, the Department adopted a revision to 20 DCMR 606 to address issues such as this. Pursuant to 20 DCMR 606.3, an applicant may request an exception from the requirements of 20 DCMR 606.1 to obtain an alternate visible emissions standard of up to 10% opacity if they demonstrate that:

- (a) The source meets all applicable particulate matter standards at the increased visible emissions limit;*
- (b) Visible emissions at the increased visible emissions limit are not an indication of improper operation of the equipment;*
- (c) The particulate emissions at the increased visible emissions limit will not create a violation of any National Ambient Air Quality Standard; and*
- (d) The source cannot modify operations or install control equipment to meet a lower opacity standard without incurring unreasonable expense.*

On April 15, 2016, WRAMC submitted a letter requesting an alternate visible emission limit for the three boilers to not exceed 5% opacity. There will be no change in the operations of the equipment related to this change in opacity standard. The District is already monitoring attainment with the federal particulate matter standards. With no change in operations, there is no expectation that this will change this attainment status in any way. It is likely that most if not all of the extremely low visible emission rates observed by the COMS are merely artifacts of the monitoring technique and not actually indicative of true visible emissions. There is no known

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control device that would eliminate this variability in the opacity readings around 0%. As such, the Department is proposing to establish, in this permit renewal action, an alternate standard similar in all respects to the current visible emissions standard except that in place of the 0% standard, WRAMC will be allowed emissions not to exceed 5% opacity from the three boilers. Additionally, because this standard was established primarily as a result of the monitoring method and not an expectation that true low-level visible emissions will be observed, a note was added to the permit indicating that this standard will be reviewed, should WRAMC ever become eligible and implement a plan to remove the COMS and replace that monitoring with another visible emissions monitoring methodology.

40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This regulation is not applicable to any of the generator engines at the site. The newest generator was installed in February 2005, which is earlier than the earliest trigger date of applicability for this rule of July 11, 2005. As such, this regulation has not been addressed in the permit.

40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

This regulation is not applicable to Boilers #2 or #4 because they were constructed before June 9, 1989. Boiler #3 was installed in 1993, so it is covered by this regulation. However, because Boiler #3 is limited in the permit to only burning natural gas, there are no applicable SO₂ or particulate matter (including opacity) standards in the rule. The only continuing requirement for Boiler #3 is the requirement to keep monthly records of natural gas use per 40 CFR 60.48c(g)(2).

40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Subpart Kb does not apply to any of the storage tanks at this facility. Of the many storage tanks at the facility, only two have a storage capacity greater than 75 cubic meters. These two storage tanks have a capacity greater than 151 cubic meters and they store no. 2 fuel oil, which has a maximum true vapor pressure well below 3.5 kPa. Therefore these two storage tanks are also exempt from Subpart Kb of 40 CFR 60.

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE)

Subpart ZZZZ of 40 CFR 63 applies to stationary reciprocating internal combustion engines (RICE) at area sources of HAP emissions to regulate/monitor HAPs such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc., through surrogate compounds such as formaldehyde, CO and/or VOC. The requirements of this regulation have been incorporated into Condition III(b) of the permit.

40 CFR 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

The facility has a small gasoline dispensing operation. The associated aboveground storage tank (AST) is a 500 gallon tank. According to the Title V application, maximum monthly throughput is 450 gallons. As such, much of this regulation is not applicable. However, the work practices found in 40 CFR 63.11116(a) as well as the requirement to maintain records of gasoline throughput on a monthly basis and make it available for inspection have been included in the permit.

40 CFR 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants (HAP) for Industrial, Commercial, and Institutional Boilers Area Sources

This subpart is not applicable to the boilers at this facility because the boilers are classified as “gas-fired boilers” as defined in 40 CFR 63.11237. They are therefore exempt under 40 CFR 63.11195(e). To ensure that they maintain this exemption, conditions have been placed in the permit to require that their operations remain within the bounds of that definition.

20 DCMR 501.1, 20 DCMR 805.5, 40 CFR 51 Appendix P, and 40 CFR 60 Appendix F – CEMS and COMS Requirements

Regulations for the proper installation, operation, and maintenance of continuous emissions monitoring systems (CEMS) and continuous opacity monitoring systems (COMS) associated with the boilers at the facility have been included in the draft permit according to the requirements of 20 DCMR 501.1, 20 DCMR 805.5, 40 CFR 51 Appendix P, and 40 CFR 60 Appendix F. These requirements are contained in conditions III(a)(3)(D) through III(a)(3)(H).

It should be noted that in the previous Title V permit, dated July 28, 2000, the requirement in 20 DCMR 805.5 limiting emissions to 0.30 lb/MMBTU, calendar day average, was applied to the equipment. However, it should be noted that this requirement is for “tangential or face-fired fossil-fuel-fired steam-generating units *powered exclusively by oil*” [emphasis added]. These units are powered either exclusively or primarily by natural gas. As a result, this requirement is not applicable and has not been included in the permit.

Compliance Assurance Monitoring (CAM) [40 CFR 64]:

A Compliance Assurance Monitoring Plan (CAM) does not apply to the emission units at WRAMC that are covered by the draft Title V permit. The emissions units covered in the permit include primarily boilers and emergency generators. These combustion units do not use a control device other than the inherent design of the unit and the proper operation and maintenance. Emissions from these units are products of the combustion of fuel burned and are controlled by proper operation, good combustion and maintenance practices. Individually, emissions from each of these units will not exceed the major source threshold for air contaminant emissions identified within 40 CFR 64; therefore none of the units meet the criteria for CAM applicability.

Greenhouse Gas (GHG) Requirements:

Because Chapter 3 (Title V) was triggered by other pollutants, no evaluation was made to

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determine if the facility would trigger Title V applicability under the GHG Tailoring Rule. No modifications have been made to the source that would trigger PSD applicability under the GHG Tailoring Rule (which has been overturned by the U.S. Supreme Court in any case). Other than this requirement, there are no other applicable requirements related to GHGs at this time, therefore none were included in the permit.

Chapter 2 Permits:

AQD is using Chapter 2 authority to update other permit requirements where applicable. As such, this draft Title V permit will be issued for public notice pursuant to both Chapter 2 and Chapter 3 public notice requirements. The requirements of all Chapter 2 permits issued to WRAMC under the authority of 20 DCMR Chapter 2 have been incorporated into the draft Title V permit and updated where appropriate.

Also note that facility-wide emission limits originally established pursuant to Chapter 2 Permit No. 3891 and subsequently placed in July 28, 2000 Chapter 3 permit (No. 004) have been placed in Condition II(o) of the permit. According to the Chapter 2 permit, the limit for SO₂ was established to avoid applicability of the federal Prevention of Significant Deterioration (PSD) program while the limits for NO_x and CO were established to avoid applicability of non-attainment New Source Review (NSR). Although these limits have been listed in the permit for many years as “plant-wide”, it appears from the records available from the time of development, that the limits were based exclusively on operations of the boiler plant. As such, these limits will remain with the boiler plant as the facility broken up for development, as is planned. When portions of the facility are split off, as recently occurred with a transfer of land to the Department of State, which contained only a few emergency generators and storage tanks, since generators and storage tanks were not included in the original limits at the time of establishment, AQD will not deduct portions of the “facility-wide” limits to go with those facilities. If and when the new owners install larger heating or cogeneration equipment, they will be evaluated for NSR and PSD applicability as appropriate.

COMPLIANCE HISTORY:

The applicant has been subject to no enforcement actions by AQD in the past three years. No air quality violations are identified in the EPA Enforcement and Compliance History Online (ECHO) database over the last three years, as of the time of this writing.

COMMENT PERIOD:

Beginning Date: April 29, 2016
Ending Date: May 31, 2016

All written comments should be addressed to the following individual and office:

Stephen S. Ours, P.E.

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Chief, Permitting Branch
Department of Energy and Environment
Air Quality Division
1200 First Street, NE, 5th Floor
Washington, DC 20002

PROCEDURE FOR REQUESTING PUBLIC HEARING:

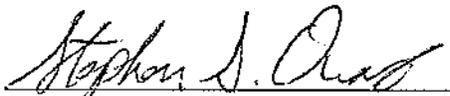
During the public comment period, any interested person may submit written comments on the draft Title V permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The District shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing shall be announced in the District Register and a daily newspaper.

POINT OF CONTACT FOR INQUIRIES:

Stephen S. Ours
Chief, Permitting Branch
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington, DC 20002
(202) 535-1747

REVIEWS:

Prepared¹ and Approved by:



Stephen S. Ours, P.E.
Chief, Permitting Branch

SSO

¹ This document was originally drafted by Gaurav Bansal, but completed by Stephen Ours after Mr. Bansal left Department of Energy and Environment service.