

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. 047

APPLICANT AND PERMITTEE:

DC Veterans Affairs Medical Center
50 Irving Street, NW
Washington, DC 20442

FACILITY LOCATION:

DC Veterans Affairs Medical Center
50 Irving Street, NW
Washington, DC 20442

RESPONSIBLE OFFICIAL:

Mr. Todd Williams
Chief, Facilities Management Service

FACILITY DESCRIPTION:

The DC Veterans Affairs Medical Center is a federal government healthcare institution that is approximately bounded by Michigan Avenue NW to the north, Irving Street NW to the south and east, and North Capitol Street NW to the west. The 291 bed facility, accredited by the Commission on Accreditation of Rehabilitation Facilities, caters to the healthcare needs of United States war veterans. The purpose and function of the DC Veterans Affairs Medical Center is the daily operation of a general medical and surgical center. These primary activities are covered by Standard Industrial Classification (SIC) 8062.

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 facility consists of eight (8) emergency generators and two (2) underground storage tanks with capacities of 30,000 gallons and 10,000 gallons, respectively. Steam for the facility is supplied by a central power plant owned and operated by another entity. The facility also includes some insignificant sources as: two (2) 100-gallon natural gas hot water heaters, gas-fired kitchen equipment, and laboratory chemical fume hoods.

The emergency generators at the facility are listed in the following table:

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Equipment Location	Emission Unit Description	Model Nos. (Generator/Engine)	Serial Nos. (Generator/Engine)
Main Building 1 50 Irving Street NW	Emergency Generator #1: One (1) 750 kWe emergency generator set with 1,135 bhp diesel-fired engine, installed in 1991	750DFJA/ KTA38-G1	I910421084/ 33120250
Main Building 1 50 Irving Street NW	Emergency Generator #2: One (1) 750 kWe emergency generator set with 1,135 bhp diesel-fired engine, installed in 1991	750DFJA/ KTA38-G1	I910421085/ 33120271
Main Building 1 50 Irving Street NW	Emergency Generator #3: One (1) 750 kWe emergency generator set with 1,135 bhp diesel-fired engine, installed in 1991	750DFJA/ KTA38-G1	I910421086/ 33120182
Main Building 1 50 Irving Street NW	Emergency Generator #4: One (1) 750 kWe emergency generator set with 1,135 bhp diesel-fired engine, installed in 1991	750DFJA/ KTA38-G1	I910421087/ 33120267
Main Building 1 50 Irving Street NW	Emergency Generator #5: One (1) 750 kWe emergency generator set with 1,135 bhp diesel-fired engine, installed in 1991	750DFJA/ KTA38-G1	I910421088/ 33120320
Building 4 (For Buildings 4, 6, and Renal Center)	Emergency Generator #6 (formerly known as Building 6 CLC Nursing-Home Gen 1): One (1) 800 kWe emergency generator set with 1,200 bhp diesel fired engine, installed in 2006 ¹	800DFHB- 5743386/ Cummins QST30-G2	K050854730/ 37219921
Building 4 (For Buildings 4, 6, and Renal Center)	Emergency Generator #7 (formerly known as Building 6 CLC Nursing-Home Gen 2): One (1) 800 kWe emergency generator set with 1,200 bhp diesel fired engine, installed in 2006 ¹	800DFHB- 5743386/ Cummins QST30-G2	K050854731/ 37219172
North Parking Garage	Emergency Generator #8: One (1) 80 kWe Kohler emergency generator set with 133 bhp (99 kWm) diesel-fired engine, installed in 2013	80REOZJF/ John Deere 4045HF285H	SGM322CPF

¹ See the Chapter 2 Technical Memorandum of March 18, 2013 for a further discussion of these installation dates and evaluation of NSPS Subpart IIII applicability.

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EMISSIONS SUMMARY

The facility reported the following potential facility-wide emissions in the Title V permit application:

FACILITY-WIDE EMISSIONS SUMMARY	
Criteria Pollutants	Potential Emissions (tons per year)
Oxides of Sulfur (SO _x)*	1.09
Oxides of Nitrogen (NO _x)	18.66
Total Particulate Matter, including condensables (PM Total)	0.22
Volatile Organic Compounds (VOC)	0.31
Carbon Monoxide (CO)	1.59

*Note that this SO_x number represents SO_x from the generators.

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

The facility has the potential to emit approximately 19 tons per year (TPY) of nitrogen oxides (NO_x). This value does not exceed the major source threshold in the District of Columbia of 25 TPY of NO_x. However, the facility is required to obtain a Title V Operating permit as condition for operating the emergency generators.

Under normal maximum operating conditions for PTE determination (i.e., 500 hours per year per emergency generator), the combined emissions of the generators could possibly have exceeded the major source thresholds, and thus trigger a Non Attainment New Source Review (NNSR). In order to avert this possibility, the facility opted for operating hour restrictions (maximum 200 hours per year of operations for all emergency generators) to keep their potential to emit nitrogen oxides under the major source threshold. Since the District has no synthetic minor permitting program, AQD decided to use the Title V Operating Permit program as a vehicle for limiting the facility's operation so as to not trigger NSR and avoid the need to acquire emission offset and installation of LAER equipment.

The facility took operating hours restriction to keep the potential to emit of all the generators below 25 tons per year, in order not to trigger new source review. As such, 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.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the 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 that conditions added to make another condition, with a direct underlying regulation, enforceable as a

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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 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-enforceable is identified in the 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.

Any condition of the draft Title V Permit that is enforceable by the District but is not federally-enforceable is identified in the Title V permit as such with an asterisk.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in notes and discussion 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 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 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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- 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE)
- 40 CFR 82, Subpart G - Protection of Stratospheric Ozone (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.*)
- 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 - Onroad Engine Idling and Nonroad Diesel 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 Chapter 2 – General and Non-Attainment Area Permits:

The generators are subject to permitting pursuant to Chapter 2. Please see the discussion of the issued Chapter 2 permits below for more information. It should be noted that this permitting action is being processed pursuant to both Chapter 2 and Chapter 3. Some requirements are being established or updated pursuant to Chapter 2 authority in this permit. Without limits on the potential to emit (PTE) of the equipment, 20 DCMR 204 (Non-attainment New Source Review) would have been triggered. Although the units were identified for permitting after they had already been constructed, due to the low level of use of the emergency generator sets that make up the vast majority of the total PTE, it was decided to establish limits on the PTE retroactively at the time of Chapter 2 permitting.

20 DCMR Chapter 3 – Operating Permits and Acid Rain Programs:

As discussed above, the facility was required to obtain a Title V operating permit even though its PTE has been limited to less than 25 tons per year of NO_x and is therefore not directly subject to this regulation. This permitting action is intended to address the requirements of this regulation, incorporating all applicable requirements into the permit and making them (except where denoted by an asterisk) federally enforceable. In the future, if a regulation is issued allowing the Department to establish synthetic minor permits, as are used in other jurisdictions, the facility is expected to be eligible to apply for such a permit in lieu of a Chapter 3 (Title V) permit.

20 DCMR Chapter 5 – Source Monitoring and Testing

Numerous monitoring and testing requirements have been placed in the permit to ensure that it is enforceable as a practical matter.

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20 DCMR Chapter 6 – Particulates

Several sections of Chapter 6 are applicable to this facility. Section 600 is applicable to the emergency generators and has been included appropriately. Sections 604 (Open Burning) and 605 (Control of Fugitive Dust) are standard requirements included in all Title V permits. Section 606 covers visible emissions requirements. Specifically, 20 DCMR 606.1 is applicable to the generators.

20 DCMR 805 –Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen

This section is not applicable as the facility has limited their emissions below the major source threshold for NO_x in the District.

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

New Source Performance Standards (NSPS), Subpart IIII applies to one of the emergency generators at the facility, specifically the one located in the North Parking Garage.

The engine identified is as follows:

Equipment Location	Emission Unit Description	Equipment Model Number
North Parking Garage	One (1) 80 kW Kohler Generator	80RE0ZJF

Condition III(a) of the permit has been written to include the requirements of Subpart IIII for this emergency generator.

The other generators are not subject to Subpart IIII due to their age.

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

Subpart ZZZZ of 40 CFR 63 regulate/monitor Hazardous Air Pollutants (HAPs) such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc, through surrogate compounds such as formaldehyde, Carbon Monoxide (CO) and/or Volatile Organic Compounds (VOC).

A facility that emits or has the potential to emit 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs, is consider a major source. Any source that is not a major source is an area source. Because this facility does not have the potential to emit more than 10 tons/year of a single HAP or an aggregate of more than 25 tons of total HAPs, it is not a major source. It is rather an area source. Therefore the area source MACT for Reciprocating Internal Combustion Engines (RICE) is applicable to this facility.

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Subpart ZZZZ for area source RICE is not applicable to any existing engine under the provisions of 40 CFR 63.6590; the facility is an institution, therefore these units would be considered “institutional emergency stationary RICE” which do not have to meet the requirements of subpart ZZZZ under 40 CFR 63.6585(f)(3) as long as they do not participate in demand response or operate (or are under contract to operate) for more than 15 hours in any calendar year during low voltage or frequency situations. The existing engines at the facility are prohibited from engaging in these practices in the permit, therefore they are exempt from having to comply with Subpart ZZZZ.

Subpart ZZZZ is applicable to new or reconstructed SI and CI engines at this facility. New/Reconstructed stationary engines are those manufactured or reconstructed after June 12, 2006. However, for new engines, Subpart ZZZZ refers to the New Source Performance Standard (NSPS), 40 CFR Part 60 Subpart III as the only set of requirements needed to ensure compliance with Subpart ZZZZ. Only emergency stationary CI engines are located at this facility based on the information provided by the applicant in the permit application. There is one (1) new engine that falls into this category at the facility, specifically Emission Unit 8, the North Parking Garage generator. The permit has been drafted to include the applicable requirements found in NSPS Subpart III for this unit, thereby also including the applicable requirement of NESHAP Subpart ZZZZ.

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

Compliance Assurance Monitoring Plan (CAM) does not apply to this facility because none of the units in this facility rely on control devices for compliance with emission limits. There is no need for this facility to install control devices as defined by 40 CFR 64. Therefore, CAM does not apply.

Chapter 2 Permits:

The requirements of the following permit(s) issued under the authority of 20 DCMR Chapter 2 have been incorporated into the Title V permit:

- Permit Nos. 6463-6469 – Permits to operate seven emergency generators were issued in 2013.
- Permit No. 60883 – Permit to operate one 80 kW emergency generator was issued on February 26, 2015.

Note that AQD is using Chapter 2 authority to update permit requirements for covered equipment, as appropriate. As such, this Title V permit will be issued for public notice pursuant to both Chapter 2 and Chapter 3 public notice requirements.

ENFORCEMENT HISTORY:

According to EPA’s Enforcement and Compliance History Online (ECHO) database, there have

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been no enforcement actions taken against the facility in the last five years for air quality violations. There was one RCRA case filed in 2011 related to a failure to have cathodic protection on steel piping for two USTs.

COMMENT PERIOD:

Beginning Date: April 15, 2016

Ending Date: May 16, 2016

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

Stephen S. Ours, P.E.
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 public comment period any interested person may submit written comments on the draft 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:

John C. Nwoke
Environmental Engineer
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington, DC 20002
(202) 724-7778

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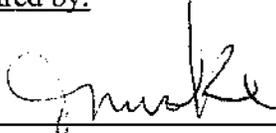
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REVIEWS:

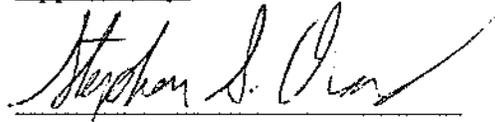
Prepared by:



John C. Nwoke
Environmental Engineer

JCN

Approved by:



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