

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. 043-R1

APPLICANT AND PERMITTEE:

Virginia Electric and Power Co. dba Dominion Virginia Power
5000 Dominion Blvd.
Glen Allen VA 23060

FACILITY LOCATION:

Joint Base Myer-Henderson Hall/Fort Lesley J. McNair
4th and P Streets SW
Washington DC 20319

RESPONSIBLE OFFICIAL

Mr. Paul S. Matthews, Manager, Federal Energy Solutions

FACILITY DESCRIPTION:

Joint Base Myer-Henderson Hall (formerly Fort Lesley J. McNair) is a military base (under U.S. Army jurisdiction) located in the District of Columbia (as well as partially in the Commonwealth of Virginia). As part of base operations, the Army has contracted with Virginia Electric and Power Co. dba Dominion Virginia Power (the applicant) to maintain and operate a number of emergency generator sets at the District of Columbia portion of the site to support base operations through electric distribution and generation (Standard Industrial Classification code (SIC) 4911, North American Industry Classification System (NAICS) code 221122). In addition, the facility maintains three (3) aboveground storage tanks (AST) for storage of diesel fuel.

On September 23, 2014, Final Title V Permit No. 043 was issued to the applicant to cover twelve emergency generator sets. On February 16, 2016, Chapter 2 Permit No. 7065 was issued to the applicant to install a new 400 kWe diesel-fired emergency generator set at the facility. On November 29, 2017, AQD issued a significant permit modification to Title V Permit No. 043 to include the requirements of Chapter 2 Permit No. 7065; the resulting permit was denoted Permit No. 043-A1. The Department of Energy and Environment (the Department) received a Chapter 3 (Title V) renewal permit application on March 26, 2019. This permitting action is to address this Title V application and will be denoted Permit No. 043-R1.

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EMISSIONS SUMMARY:

The following table provides a list of the estimated maximum emissions the facility could emit when all generator sets operate at maximum load for the maximum number of hours allowed under the terms of the permit (see Condition III(a)(2)(A)).

Plant-wide Emissions Summary (tons per year)	
<u>Pollutant</u>	<u>Potential Emissions</u>
Oxides of Sulfur (SO _x)	0.04
Oxides of Nitrogen (NO _x)	51.09
Particulate Matter (PM/PM10)	0.38
Volatile Organic Compounds (VOCs)	0.79
Carbon Monoxide (CO)	3.20
Total Hazardous Air Pollutants (HAPs)	0.04

Note that these emissions cover only the equipment under the control of the applicant. Joint Base Myer-Henderson Hall is also a major source of air pollutants. Virginia Electric and Power Company's operations are considered a support facility for Joint Base Myer-Henderson Hall, so for purposes of determining the source classification, both would need to be considered. Similarly, in any new source review netting evaluation, equipment associated with both entities would need to be considered.

The Plant-wide Emissions Summary calculated for this renewal Title V Permit No. 043-R1 differed from the previous Plant-wide Emissions Summary calculated for the significant permit modification to Title V Permit No. 043. The applicant submitted updated manufacturer specifications for the emergency generators that included "not to exceed" values instead of "nominal" values, which increased and decreased the potential to emit for some generators. Also, in the previous evaluation, the Building 18 generator calculations incorrectly used 250 hours per year operation, instead of the 500 hours per year operation allowed in the permit, which affected the plant-wide emissions estimate. None of these changes to the emission factors change the rule applicability outcomes.

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

The Virginia Electric and Power Co. operations at Joint Base Myer-Henderson Hall have the potential to emit approximately 51.09 tons per year of NO_x. These potential emissions exceed the major source threshold in the District of 25 tons per year of NO_x. As a result, the applicant is subject to the requirement to obtain a Chapter 3 permit. Additionally, even if the applicant's operations alone did not exceed the major source threshold, because the applicant's equipment at the site is in place to support operations of the Joint Base Myer-Henderson Hall facility, which is a permitted major source itself, the applicant would be subject to the requirement to obtain a Chapter 3 permit.

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

It should also be noted that this permit will be issued to include updated requirements established pursuant to 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 noted in the 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 774 - Architectural and Industrial Maintenance Coatings

20 DCMR 800 - Control of Asbestos.

20 DCMR 801 - Sulfur Contents of Fuel Oils

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 (CIICE)

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

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through Title V) (*Note: The 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 Chapter 2 – General and Non-Attainment Area Permits:

The equipment covered by the permit application (13 emergency generator sets) are all stationary sources with the potential to emit air pollutants. Thus, they are subject to Chapter 2 permitting pursuant to 20 DCMR 200.1 and 200.2.

It should also be noted that 20 DCMR 204 (Permit Requirements for Sources Affecting Non-Attainment Areas), the District's non-attainment New Source Review (NSR) rule was applied to seven of the generators (DOM-EG-6-1 through DOM-EG-6-7), prior to the November 2012 rule revisions, in the course of issuing permits 6563, 6564, and 6478 through 6482. As a result of the application of this rule to these permits, the applicant was required to obtain a total of 7 tons of NO_x emission reduction credits (ERCs). The existing Title V permit requires that they maintain records of this action in Condition III(a)(4)(E). This requirement is unchanged in the updated draft permit.

In addition to the above discussion, the potential emissions calculated for this renewal Title V Permit No. 043-R1 differed from the previous potential emissions calculated for the significant permit modification to Title V Permit No. 043. The applicant submitted updated manufacturer specifications for the emergency generators that included "not to exceed" values instead of "nominal" values, which increased and decreased the potential to emit for some generators. Emission offsets were obtained for 9 tons of NO_x (see letter to Brian Hug, Maryland Department of the Environment from Pamela Faggert) for seven of the generators (DOM-EG-6-1 through DOM-EG-6-7). None of these changes to the emission factors change the offsets required. However, the Title V permit has been updated to reflect the change in emission limits for the five emergency generators (DOM-EG-6-1 through DOM-EG-6-5).

Also of note is the fact that eight of the generators have taken operational limits of 250 hours per 12 month rolling period to minimize potential emissions. The remaining units have 500 hours per

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12 month rolling period limits.

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

Please see the discussion above in the section entitled “Basis of 20 DCMR Chapter 3 (Title V) Applicability” for a discussion of the applicability of Chapter 3 to the facility. The acid rain portions of this chapter are not applicable to the facility.

20 DCMR Chapter 5 – Source Monitoring and Testing:

Throughout the permit, appropriate monitoring, testing, and record keeping requirements have been established to ensure that all emission and operational limits in the permit are enforceable as a practical matter. These requirements are established under the authority of Chapter 5.

20 DCMR 715 – Major Source and Case-By-Case Reasonably Available Control Technology (RACT):

The requirements of 20 DCMR 715 do not apply to the source because the VOC PTE of the source is less than 25 tons per year.

20 DCMR 801 – Sulfur Content of Fuel Oils:

This regulation limits fuel oil sulfur content to 1% by weight in all circumstances. There are more stringent requirements for commercial fuel oil, but the only portion of 20 DCMR 801 applicable to the emergency engines is the 1% sulfur content limit. This requirement is streamlined with the more stringent requirements found in 40 CFR 60.4207(b) for the NSPS engines.

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

The requirements of 20 DCMR 805 do not apply to the source. Pursuant to 20 DCMR 805.1(c)(2), the requirements of 20 DCMR 805 do not apply if “emergency standby engines operated less than five hundred (500) hours during any consecutive twelve (12) month period.” The emergency generators all have operation limits of less than 500 hours listed in Condition III(a)(2)(A) of the permit.

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

NSPS Subpart IIII is applicable to all 13 of the generators covered by this Chapter 3 permit based on model years and installation dates. As such, the relevant requirements of this regulation have been incorporated throughout Condition III(a) of the permit.

40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Engines

This subpart does not apply to this facility because this facility only includes compression ignition (diesel) 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):

Subpart ZZZZ of 40 CFR 63 regulates/monitors Hazardous Air Pollutants (HAPs) such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc, through surrogate compounds such as formaldehyde, CO and/or 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.

Subpart ZZZZ is applicable to the generator engines operated by the applicant. However, pursuant to 40 CFR 63.6590(c), the only requirement is that the units comply with the requirements of (in the case of these compression ignition engines) 40 CFR 60, Subpart IIII, previously discussed.

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

A Compliance Assurance Monitoring Plan (CAM) does not apply to the emission units at Virginia Electric and Power Co. dba Dominion Virginia Power that are covered by the draft Title V permit. The emissions units covered in the permit are engines. These 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 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. Other than this requirement, there are no other applicable requirements related to GHGs at this time, therefore none were included in the permit.

COMPLIANCE HISTORY:

The applicant has not been subject to enforcement actions by AQD in the past three years. No air quality violations have been identified by the Compliance and Enforcement Branch over the last three years. No air quality violations are listed in the three year compliance status summary in EPA's Enforcement and Compliance History Online (ECHO) database.

COMMENT PERIOD:

Beginning Date: October 4, 2019

Ending Date: November 4, 2019

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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 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:

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Air Quality Division
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REVIEWS:

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