

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. 017-R3-A1

APPLICANT AND PERMITTEE:

Armed Forces Retirement Home- Washington
3700 North Capitol Street NW
Washington, DC 20317

FACILITY LOCATION:

Armed Forces Retirement Home - Washington
3700 North Capitol Street NW
Washington, DC 20317

FACILITY DESCRIPTION:

Armed Forces Retirement – Washington (AFRH) operates several boilers and emergency generators to provide heating, cooling and emergency backup power to buildings that house retired military personnel in the District of Columbia. This facility is located at 3700 North Capitol Street in the northwest quadrant of the District. The facility consists of many buildings that share the site. The primary emission sources in these buildings are emergency generators and “insignificant” boilers. The Permittee is covered under Standard Industrial Classification (SIC) Code 8361.

On March 16, 2018, the Air Quality Division (AQD) of the Department of Energy and Environment (the Department) approved a source category permit coverage application (Approval No. 7043-SC-0048) to install a new 10 kW emergency generator set powered by a 15 hp natural gas fired-engine at the facility. Condition I(g) of the Title V permit required, pursuant to 20 DCMR 301.1, that the applicant apply for a modification to the Title V permit within 12 months of issuance of the Chapter 2 permit. A similar requirement was contained in Condition II(g) of the source category permit. This approval was passively renewed pursuant to source category Permit No. 7043-SC-R1 on November 2, 2020 and actively renewed on June 1, 2021 (Approval No. 7043-SC-0048-R1).

On March 15, 2019, the AQD received a permit amendment request to incorporate the installation of the 10 kW natural gas emergency generator set, reflect the replacement of the C21 storage tank with a 500 gallon diesel storage tank at the Sherman Building, and an addition of a new 300 gallon gasoline tank to supply fuel to golf course equipment.

It should be noted that this significant permit modification action only opens portions of the

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 2

permit. The portions affected are as follows:

1. The equipment list at the beginning of Condition III is being modified to reflect the addition of a 10 kWe natural gas fired emergency generator at Eagle Gate Guard House;
2. A new Condition III(c) is being added to incorporate the newly installed 10 kWe emergency generator set powered by a 15 hp natural gas-fired engine at the Eagle Gate Guard House.
3. A new Condition III(d) is being added to reflect the acquisition of C24, a 300-gallon gasoline tank at the golf course that is subject to Stage I Vapor Recovery requirements.
4. The Insignificant Activities table in Condition IV(d) has been revised to reflect the replacement of the previous 276 gallon diesel storage tank (C21) for the Sherman Building with a new 500 gallon storage tank.

All other conditions of the permit remain unchanged. There will be no extension to the existing Title V permit expiration date. The applicant will still need to apply for a renewal of the Title V permit at least six months before that expiration date.

EMISSIONS SUMMARY:

The following table shows the effect of the generator installation on the potential to emit (PTE) of the facility in tons per year:

Plantwide Emissions Before and After New Generator Installation (Tons Per year)			
Criteria Pollutants	Facility PTE Before New Generator Installation	PTE of New Generator	Facility PTE After Generator Installation[†]
Sulfur Dioxide (SO ₂)	0.49	<0.001	0.491
Oxides of Nitrogen (NO _x)	27.12	0.092	27.212
Total Particulate Matter including condensable (PM Total)	8.53	<0.001	8.531
Volatile Organic Compounds (VOC)	6.05	0.001	6.051
Carbon Monoxide (CO)	19.47	0.142	19.612
Total Hazardous Air Pollutants (HAP)	1.47	0.001	1.471

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 3

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

The facility has the potential to emit approximately 27.21 tons per year (“TPY”) of NO_x. This value exceeds the major source threshold in the District of Columbia of 25 TPY of NO_x. 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. The new emergency generator did not affect the potential to emit at this facility.

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 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.

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 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 704 -Stage I Vapor recovery

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 4

- 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
- 20 DCMR 1501 - General Conformity - Requirements
- 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 (CI-ICE)
- 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI-ICE)
- 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.*)
- 40 CFR 93, Subpart B - Determining Conformity of General Federal Actions to State or Federal Implementation Plans

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:

Pursuant to this regulation, the Department issued a source category permit coverage approval (Approval No. 7043-SC-0048, renewed as 7043-SC-0048-R1) to install and operate a new 10 kW emergency generator set powered by a 15 hp natural gas fired-engine at the facility's Eagle Gate guard house. It is this addition that opened the Title V permit for modification.

20 DCMR Chapter 3 – Operating Permits:

The facility was required to obtain a Title V operating permit because the potential to emit (PTE) is greater than 25 tons per year of NO_x. 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.

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 5

As noted above, the facility currently has a Title V operating permit that expires January 23, 2023. The expiration date of this permit will not change because of the permit modification.

20 DCMR Chapter 5 – Source Monitoring and Testing

Numerous monitoring and testing requirements have been placed in the permit to address the addition of the generator set and the addition of a gasoline dispensing system to ensure that the permit is enforceable as a practical matter. The most important monitoring relates to the duration and circumstances of each operation of the emergency generator sets. These requirements have been included in the permit and will ensure that compliance with the operating hour restrictions can be determined and non-compliance will be reported.

20 DCMR Chapter 6 – Particulates

Several sections of Chapter 6 are applicable to this facility. 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. It should be noted that 20 DCMR 606 is subject to a call by the U.S. Environmental Protection Agency (EPA) for a revision to the District's State Implementation Plan (SIP). The underlying regulatory requirements may change as a result. This is so noted in the permit.

20 DCMR 704: Stage I Vapor Recovery:

The facility acquired a golf course that has a 300-gallon capacity gasoline that supplies fuel to the golf course equipment. Since the capacity of the gasoline storage tank at the facility exceeds two hundred and fifty (250) gallons. Thus 20 DCMR 704 is applicable and has been included in the permit.

20 DCMR 705: Stage II Vapor Recovery:

The throughput for the gasoline storage tank is less than 10,000 gallons per month. The threshold for 20 DCMR 705 is 10,000 gallons per month throughput per 20 DCMR 705.3. Thus 20 DCMR 705 is not applicable and has not been included in the permit.

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

The emergency engines at the facility are not subject to the requirements of this section as they are not permitted to operate for 500 or more hours per 12-month rolling period. See 20 DCMR 805.1(c)(2). The insignificant activities at the site are too small to have any appropriate RACT requirements under the regulation.

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

40 CFR 60, Subpart IIII does not apply to the Eagle Gate generator being added to the permit because it is a spark ignition engine, not a compression ignition engine.

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 6

40 CFR 60, Subpart JJJJ - Standards of Performance for Spark Ignition Internal Combustion Engines

This regulation applies to the Eagle Gate generator (B15). The requirements of this regulation are incorporated into Condition III(c), which has been added to the permit. Note that this section was not combined with Condition III(a) because the Scott Building generator engines in Condition III(a) have special requirements as they are uncertified and require regular testing.

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 regulates 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 NESHAP requirements of Subpart ZZZZ are applicable to this facility.

Subpart ZZZZ is applicable to new or reconstructed spark ignition engines. 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 JJJJ as the only set of requirements needed to ensure compliance with Subpart ZZZZ. The new natural gas engine for the Eagle Gate emergency generator (B15) falls into this category as mentioned in the discussion of 40 CFR 60, Subpart JJJJ above. The Title V permit has been drafted to include the applicable requirements of Subpart JJJJ, but does not specifically reference 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 issued under the authority of 20 DCMR Chapter 2 have been incorporated into the Title V permit modification:

- Permit No. 7043-SC-0048-R1 – Source category permit coverage approval 7043-SC-0048 to install and operate one 10kWe natural gas fired emergency generator set, was issued March 16, 2018. This approval was renewed under updated source category permit 7043-SC-R1 passively on November 2, 2020 and actively on June 1, 2021. The requirements of the

Fact Sheet and Statement of Basis

Permit No. 017-R3-A1

Armed Forces Retirement Home - Washington

June 30, 2021

Page 7

updated source category permit have been used for incorporation into the Title V permit via this modification action.

ENFORCEMENT HISTORY:

Since the issuance of Title V permit renewal (Permit No. 017-R3) on January 24, 2018, the applicant has been subject to enforcement actions by AQD. Specifically, action was taken against the facility (administrative order) for failure of a stack test of the uncertified Scott Building generators on April 24, 2018. A retest was performed on September 25, 2018, which showed compliance.

The last full compliance inspection at the facility was done on July 30, 2020.

COMMENT PERIOD:

Beginning Date: July 9, 2021

Ending Date: August 9, 2021

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

Stephen S. Ours, P.E.
Chief, Permitting Branch, Air Quality Division
Department of Energy and Environment
1200 First Street NE, 5th Floor
Washington, DC 20002
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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:

Olivia Achuko
Environmental Engineer
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor

Fact Sheet and Statement of Basis
Permit No. 017-R3-A1
Armed Forces Retirement Home - Washington
June 30, 2021
Page 8

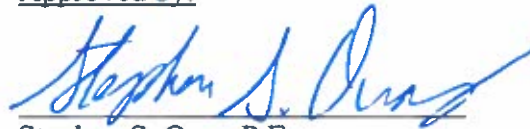
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REVIEWS:

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