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. 056

APPLICANT AND PERMITTEE:
U.S. General Services Administration
Nebraska Avenue Complex
301 7th Street, SW
Washington, DC 20407-0001

FACILITY LOCATION:
U.S. General Services Administration
Nebraska Avenue Complex
3801 Nebraska Avenue, NW
Washington, DC 20393

FACILITY DESCRIPTION AND BACKGROUND:
The Nebraska Avenue Complex (NAC) is owned by the General Services Administration (GSA) and predominantly serves as office, administration, and storage spaces. At the time of permit application, the Department of Homeland Security (DHS) leased approximately 53 percent of the campus. The remaining portions of the campus are either currently vacant or serve as GSA space. DHS will continue to vacate the campus over the course of the next few years. In 2007, DHS purchased three (3) identical 1,825 kW (2,876 hp) used, trailer-mounted emergency generator (EG) units from a government auction to serve as a back-up power supply for DHS operations at the NAC. Since the EG units were purchased used, the non-resettable meters did not read zero hours when they began service at the subject property. Each EG unit is fed from a 1,250-gallon aboveground diesel day tank located inside the EG unit trailer. The day tanks are fed from one 20,000-gallon[1] aboveground diesel storage tank (AST) owned and operated by GSA. In the past, DHS has owned the three EG units and associated day tanks, while GSA has operated and maintained them through a service contractor. However, in a jointly signed letter dated February 16, 2022, GSA and DHS notified the Air Quality Division (AQD) of the Department of Energy and Environment (the Department) that DHS had transferred "all title, custody, and responsibility" for the three units to GSA, effective that day (February 16, 2022). They also requested transfer of associated Chapter 2 permits from DHS to GSA in the same letter

[1] Note that the GSA application listed this main tank as a 30,000 gallon tank, but it was noted that a separate application submitted by DHS listed the same tank as a 20,000 gallon tank. In a call with Daniel DiRito on February 1, 2022, it was confirmed that the tank is 20,000 gallons in capacity.

(along with clarifying emails received by Stephen Ours of the Department on February 18, 2022).

In addition to the 20,000 gallons AST, GSA also has additional emission units at the facility as follows: One (1) Caterpillar 121 hp diesel-fired fire water pump, one (1) Detroit Diesel 804 hp diesel-fired life safety emergency generator, and two (2) Unilux 16.0 MMBTU/hr dual fuel-fired boilers. GSA-NAC is covered under Standard Industrial Classification (SIC) Code 9199 and NAICS Code 921190.

On October 30, 2020 and December 20, 2020, GSA and DHS, respectively, applied for Title V permits per 20 DCMR 301.1(a)(4) and 303.3(b). However, since the DHS equipment was transferred to GSA on February 16, 2022, along with the pending application, these applications will be combined and result in only one draft permit for all of the equipment at the facility.

EQUIPMENT SUMMARY:

The facility includes emission units that are capable of operating twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. The facility consists of the following significant sources of air emissions (addressed in Condition III of the permit):

Emission Units				
Emission Unit ID	**Stack ID**	**Emission Unit Identification**	**Chapter 2 Permit No.**	**Description**
EG-Unit #1	EG-Unit #1	Caterpillar Model No. 3516 generator set contained in a trail-mounted, with an integral 1,250-gallon diesel fuel day tank located at Nebraska Avenue Complex.	7222-A2†	1,825 kWe generator set powered by a 2,876 hp diesel engine, manufactured in 2001 and installation date: 2007 (non-NSPS)
EG-Unit #2	EG-Unit #2	Caterpillar Model No. 3516 generator set contained in a trail-mounted, with an integral 1,250-gallon diesel fuel day tank located at Nebraska Avenue Complex.	7223-A2†	1,825 kWe generator set powered by a 2,876 hp diesel engine manufactured in 2001 and installation date: 2007 (non-NSPS)
EG-Unit #3	EG-Unit #3	Cummins Model No. 3516B generator set contained in a trail-mounted, with an	7224-A2†	1,825 kWe generator set powered by a 2,876 hp diesel engine, manufactured in 2001 installation date: 2007 (non-

Emission Units				
Emission Unit ID	**Stack ID**	**Emission Unit Identification**	**Chapter 2 Permit No.**	**Description**
		integral 1,250-gallon diesel fuel day tank located at Nebraska Avenue Complex.		NSPS)
Life Safety Generator		Detroit Diesel Life Safety Generator, Serial No. 0765031	7196‡	600 kW generator set powered by a 804 hp diesel engine, installed date 2003 (non-NSPS
Fire Pump		Caterpillar Fire Pump, Serial No. 90N69428	7195‡	121 hp diesel engine-powered fire pump, installed date: 1998 (non-NSPS)
NAC Boiler 1		Model 1600, Serial No. A2222	7170‡	16.0 MMBTU/hr Unilux Boiler
NAC Boiler 2		Model 1600, Serial No. A2509	7171‡	16.0 MMBTU/hr Unilux Boiler

† These Chapter 2 permit numbers are for reference only. The requirements of the Chapter 2 permits have been incorporated into the draft permit and the separate Chapter 2 permit documents will no longer be maintained.
‡ These permit numbers were assigned to permit applications that did not result in stand-alone Chapter 2 permits being issued. These permit numbers are included here for reference purposes only.

In addition to the above equipment, the facility maintains the following insignificant/miscellaneous units:

- Smith Cast Iron 0.587 MMBTU per hour boiler, and that burns only natural gas[2];
- Fulton 1.0 MMBTU per hour boiler that burns only natural gas;
- Three 1,250-gallons above ground diesel day tanks; and
- One 20,000-gallon diesel fuel oil storage tank.

EMISSIONS SUMMARY:
The following is an estimate of the overall potential emissions from the facility:

Plantwide Emissions Summary (tons per year)	
Pollutant	**Potential Emissions**
Sulfur Dioxide (SO_2)	0.09
Oxides of Nitrogen (NO_x)	33.67
Total Particulate Matter (PM Total) – includes both filterable and condensable fractions	1.37
Volatile Organic Compounds (VOCs)	1.19

[2] The Smith Cast Iron boiler was initially identified as a dual fuel boiler in the permit application, but it was later clarified that the unit is only fired on natural gas and is not connected to an oil supply.

Plantwide Emissions Summary (tons per year)	
Pollutant	**Potential Emissions**
Carbon Monoxide (CO)	12.12
Total Hazardous Air Pollutants (HAPs)	0.16

It should be noted that the potential to emit calculations for the engines incorporates operating hour limitations of 250 hours per 12-consecutive-month rolling period for the fire pump and 200 hours per 12-consecutive-month rolling period for each of the three 1,875 kWe emergency generator sets. These limitations have been incorporated into the permit.

BASIS OF 20 DCMR CHAPTER 3 (TITLE V) APPLICABILITY:
GSA's operations at the Nebraska Avenue Complex (including insignificant activities) has the potential to emit 33.67 tons per year of oxides of nitrogen (NO_x). This exceeds the major source threshold in the District of 25 tons per year. 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 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.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in the 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 774 - Architectural and Industrial Maintenance Coatings
20 DCMR 800 - Control of Asbestos.
20 DCMR 801 - Sulfur Contents of Fuel Oils
20 DCMR 803 - Sulfur Process Emissions
20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen
40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE)
40 CFR 51.212, 52.12, 52.30, 60.11, and 61.12 - Credible Evidence
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 - 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 16.0 MMBTU/hr boilers and all of the emergency engines and fire pump at the facility are stationary sources that have the potential to emit air pollutants, and are therefore subject to 20 DCMR Chapter 2 permitting requirements. There are two units at the facility with heat input ratings below 5 MMBTU/hr. These units are included in the Title V permit as insignificant activities, but they are not subject to 20 DCMR Chapter 2 because the heat input ratings make them exempt pursuant to 20 DCMR 200.14.

As part of this permit action, all permits issued under the authority of 20 DCMR Chapter 2 are being incorporated into this Title V permit. These permits are listed in the "Emission Units" table in the "Equipment Summary" section of this memorandum, above.

It should be noted that Chapter 2 permits 7222-A2 through 7224-A2 incorporate 200 hour per 12-consecutive-month rolling period operational limits on the three 1,825 kWe emergency generator sets. These limits were taken in earlier versions of those permits to avoid triggering non-attainment new source review (NNSR) (20 DCMR 204). As such, these limits are now considered to be limits pursuant to 20 DCMR 200.7.

The fire pump operating hour limit of 250 hours per 12-consecutive-month rolling period was not taken for this purpose, but rather that was deemed to be an appropriate limit rather than the typical 500 hours as the fire pump could not realistically operate a large number of hours above the 100 hours of maintenance operation that is otherwise allowed.

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

This regulation is applicable to the 16.0 MMBTU/hr boilers at the site (see 20 DCMR 805.1(a)), and requires biennial combustion process tune-ups pursuant to 20 DCMR 805.5(b) and 805.9. These requirements have been incorporated into Conditions III(b)(1)(D), III(b)(2)(E), and III(b)(4)(G) of the permit.

This regulation is not applicable to the emergency engines as they are not permitted to operate 500 hours or more per 12 month rolling period. See the regulatory exemption at 20 DCMR 805.1(c)(5) and permit Condition III(a)(2)(A).

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

Certain combustion units are subject to NSPS Subpart Dc. Applicability of Subpart Dc is based on unit size and age. The boilers must have heat input ratings greater than 10 MMBTU/hr and less than 100 MMBTU/hr, and must have been installed after June 9, 1989. Both criteria for age and size must be met for applicability of 40 CFR 60.40c – Subpart Dc to be triggered. The facility has two 16.0 MMBTU/hr dual fuel boilers in operation. These boilers were installed in 2011. These units meet both the size and age limitations, therefore, Subpart Dc is applicable to these units. The applicable requirements of Subpart Dc have been incorporated in the permit for these units in Condition III(b).

No opacity standard applies pursuant to 40 CFR 60.43c because the units have heat input ratings less than 30 MMBTU/hr.

No other boilers or other "steam generating units" at the facility have heat input ratings greater than or equal to 10 MMBTU/hr, so no other units are subject to Subpart Dc.

40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
This regulation does not apply to any of the emergency engines as they were manufactured prior to the effective date of the regulation. The three 1,825 kWe emergency generator sets were manufactured in 2001 (though they were installed in 2007). The Life safety generator was installed in 2003. The fire pump was installed in 1998.

40 CFR 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
Because the two 16.0 MMBTU/hr boilers use fuel oil, the requirements of this NESHAP are applicable. Specifically, the facility is required to submit an initial notification of applicability to the EPA, perform biennial boiler tune-ups, and to have performed a one-time energy assessment. All of these requirements have been included in the permit.

40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (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, CO and/or VOC. A facility that emits or has the PTE of 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs, is considered a major source of HAPs. Any source that is not a major source is an area source of HAPs. 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 an area source.

This regulation applies to all of the emergency engines at the facility. The applicable requirements of Subpart ZZZZ have been incorporated into the permit throughout Condition III(a).

40 CFR 64 - Compliance Assurance Monitoring (CAM)
CAM does not apply to the facility.

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 Prevention of Significant Deterioration (PSD) applicability. 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:

Except for the identification of the lack of a required permit pursuant to 20 DCMR Chapter 3, which is being addressed by this permitting action, the Department has not identified any air

quality violations or initiated any enforcement action against the facility for the last three years.

Additionally, no air quality violations are identified in the U.S. Environmental Protection Agency (EPA) Enforcement and Compliance History Online (ECHO) database over the last three (3) years, as of the time of this writing.

COMMENT PERIOD:

Beginning Date: May 27, 2022
Ending Date: June 27, 2022

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 Department 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:

Abraham T. Hagos
Environmental Engineer
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002
(202) 535-1354

REVIEWS:

Prepared by:

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Approved by:

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Chief, Permitting Branch

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