

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment

Air Quality Division



**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. 044

APPLICANT AND PERMITTEE:

U.S. General Services Administration
2701 Martin Luther King, Jr. Ave., SE
Building 40
Washington, D.C. 20032

FACILITY LOCATION:

Saint Elizabeths West Campus
2701 Martin Luther King Jr., Ave., SE
Washington, D.C. 20032

FACILITY DESCRIPTION:

Saint Elizabeths West Campus (SEWC), located in the southeast quadrant of Washington, D.C., is a U.S. General Services Administration (GSA) federal property that is being developed to meet the operational and housing needs of the U.S. Department of Homeland Security (DHS) Headquarters. The DHS facility will accommodate the United States Coast Guard, and the Federal Emergency Management Agency (FEMA), as part of a Final Master Plan which will consolidate 3.8 million gross square feet of office space on the West Campus and 750, 000 gross square feet of office space on a portion of the East Campus. SEWC is responsible for providing the power requirement needs of the property future improvements.

The facility is owned and operated by GSA and consists of a 176 acre site that accommodates historic buildings, landmark features and a historic cemetery.



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The SEWC facility includes installations of boilers and emergency generators at the Central Utility Plant (CUP) and the Modular Utility Plant (MUP). The utility plants provide heating, cooling and emergency power needs to support the DHS operation. The facility is covered under the North American Industry Classification System (NAICS) Code 921190. This 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 units consist of: two (2) 16.63 MMBtu/hr dual-fuel boilers; two (2) 12.45 MMBtu/hr dual-fuel boilers; four (4) small hot water heaters; two (2) 2191 kW emergency generators; two (2) 2711 kW emergency generators; one (1) 2180 kW pump house emergency generator; one (1) trailer-mounted 620 kW emergency generator and three (3) 550-gallon aboveground storage tanks; two (2) 15,000 gallon aboveground storage tanks; one (1) 17,500 gallon aboveground storage tank; three (3) 400 gallon storage tanks; one (1) 700 gallon storage tank; One (1) 12,000 gallon storage tank; one (1) 200 gallon storage tank; one (1) 1,000 gallons trailer-mounted tank. Additional equipment include: four (4) 1,900 gallons per minute wet cooling towers; and two (2) 1,800 gallons per minute wet cooling towers, one (1) gas oven; four (4) CUP chillers and two (2) MUP chillers.

EMISSIONS SUMMARY:

2013 PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]		
Criteria Pollutants	Estimated Actual Emissions	Potential Emissions
Sulfur Dioxide (SO ₂)	0.03	0.9996
Nitrogen Oxides (NO _x)	4.44	19.856
Particulate Matter (PM & PM ₁₀)	0.34	1.44
Volatile Organic Compounds (VOC)	0.25	1.503
Carbon Monoxide (CO)	4.40	17.50

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

Saint Elizabeths West Campus (SEWC) , has the potential to emit 20.20 tons per year (TPY) of nitrogen oxides (NO_x), 1.00 TPY of sulfur dioxide (SO₂), 1.45 TPY of particulate matter (PM), 1.53 TPY of volatile organic compounds (VOC), and 17.74 TPY of carbon monoxide.

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

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to avert this possibility, the facility opted for fuel and operating hour restrictions 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.

As noted previously, this facility has future plans for expansion. It is expected that this property improvement could nudge it over to the 25 tons per year threshold for NO_x. When that happens, the facility may become a bona fide major source, pursuant to Title V of the Federal Clean Air Act as amended and 20 DCMR 300. Twenty-five (25) tons per year or more of nitrogen oxides or volatile organic compounds emissions are applicability criteria for a major source status. The nitrogen oxide potential emissions of this facility are currently under the major source threshold in the District of Columbia of 25 TPY of NO_x. As stated earlier, the facility's TV operating permit requirement is not based on the 25 TPY of NO_x criterion, but is as set forth on the preceding discussion. As such, pursuant to Chapter 2 Permit conditions and to a lesser extent, 20 DCMR 300.1(b), 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.

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.

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REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except where the conditions of the requirement are included in all District Title V permits, or as discussed 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 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

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 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

40 CFR 61.12 – Credible Evidence

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.

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20 DCMR 903 - Odorous or other nuisance air pollutants.

National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63

In this regulatory review, it is noteworthy that this facility does not emit or have a potential to emit 10 tons per year of a single HAP or 25 tons per year of any combination of HAPs. Consequently, the Major Source MACT does not apply, hence the facility defaults to an area source of HAP emissions.

1. None of the diesel engine-driven emergency generators evaluated for the applicability of Area source RICE rule under 40 CFR 63 subpart ZZZZ is subject to specific requirements of this subpart. The reason is that the engines were all ordered or manufactured after June 12, 2006, and therefore are New Engines under this subpart. New Engines, although subject to Subpart ZZZZ, have no additional requirements under this subpart beyond those of 40 CFR 60 Subpart IIII. The regulation of the New Engines under 40 CFR 60 Subpart IIII occurs because EPA determined that for new sources, adequately regulating criteria pollutants also adequately regulates HAPs.
2. The NESHAP subpart JJJJJ for area source ICI Boilers would initially appear applicable because the boilers are dual fuel (gas/oil) units. However, under the provisions of 40 CFR 63.11195(b), and 40 CFR 63.11237, the boilers qualify as “gas-fired boilers” and are therefore not subject to the requirements of Subpart JJJJJ. Appropriate permit conditions have been placed in the permit, pursuant to 40 CFR 63.11195 to ensure that liquid oil is only utilized in the affected boilers in compliance with 40 CFR 63.11237.

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

Compliance Assurance Monitoring Plan (CAM) requirements do not apply to this facility because none of the units in this facility rely on control devices for compliance with the particulate matter (PM) limitations. By combusting natural gas or No. 2 fuel oil, Saint Elizabeths West Campus is deemed to have complied with the PM limitations (unless testing results or other credible evidence of violations of the standards is identified). There is no need for this facility to install control devices as defined by 40 CFR 64. CAM does not apply.

New Source Performance Standards (NSPS) [40 CFR 60]:

1. NSPS: The generators are subject to Subpart IIII.

Pursuant to 40 CFR 60.4200, NSPS Subpart IIII applies to compression ignition internal combustion engines: 1) with a model year of 2007 or later, 2) constructed after July 11, 2005 and manufactured after April 1, 2006, or 3) modified or reconstructed after January 1, 2009.

The emergency generators are all Model Year 2007 or later and are considered new engines subject to this subpart.

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2. NSPS: Some hot water (HW) boilers are subject to Subpart Dc of 40 CFR 60.40c, while others are not.

Each of the dual-fuel (natural gas and No. 2 fuel oil) hot water boilers has a heat-input rating of more than 10 MMBtu/hr and was constructed after the date of applicability – June 9, 1989. Therefore, they are subject to 40 CFR 60, Subpart Dc. Based on this analysis, CUP boilers manufactured in May 13, 2011 and the Modular Utility Plant (MUP) boilers ordered in February 21, 2012 are subject to this NSPS.

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:

- Permits #6565, 6566, 6569, 6570, 6567, 6568, 6610, 6611, 6571, 6572, 6573 and 6502– Permits to operate hot water boilers and emergency generators, issued in October 2012 except #6502, which was issued June 14, 2012. The remaining emission units are not subject to permitting because they burn natural gas or distillate fuel and are external combustion type equipment with a capacity of 5 MMBtu/hr or fewer.

COMMENT PERIOD:

Beginning Date: August 23, 2013

Ending Date: September 23, 2013

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

Stephen S. Ours, P.E.
Chief, Permitting Branch
District Department of the Environment
Air Quality Division
1200 First Street, NE, 5th Floor
Washington, D.C. 20002

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During the 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 a 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

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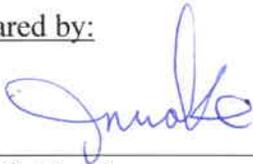
daily newspaper. AQD will also post such information on the Department's website.

POINT OF CONTACT FOR INQUIRIES:

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

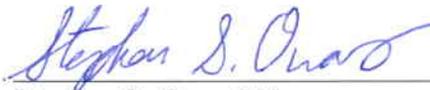
REVIEWS:

Prepared by:



John C. Nwoke
Environmental Engineer

Approved by:



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

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