

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. 045-R1

APPLICANT AND PERMITTEE:

Verizon Washington DC, Inc.
3011 Hungary Spring Road
Richmond VA 23228

FACILITY LOCATION:

Verizon Washington DC, Inc.
Southwest Central Office
30 E Street SW
Washington DC 20016

RESPONSIBLE OFFICIAL

Mr. David P. Leland; Regional Environmental Manager

FACILITY DESCRIPTION:

Verizon Washington DC, Inc. Southwest Central Office is located at 30 E Street SW, Washington DC 20016. The facility's primary emission units consist of four (4) Detroit Diesel engine powered 1,500 kilowatt (kWe) Cummins Model # 1500 DS-4 diesel generators (EG1, EG2, EG3, and EG4), and a 250 kWe Caterpillar life safety emergency generator (LSEG1) with Caterpillar diesel engine Model # C9ATAAC. This life safety generator replaced a Detroit Diesel engine powered 225 kWe Cummins Model # 7125-7230 diesel generator previously permitted in Title V permit 045, issued January 16, 2014. The four 1,500 kWe emergency generators are located inside the penthouse of the building. They supply emergency electric power to the facility. The 250 kW emergency generator is being operated under Chapter 2 permit No. 6845, issued April 1, 2014, and is located on the roof of the building adjacent to the penthouse. The 250 kW generator is a life safety generator and provides backup electrical power to the building safety systems. Other than the replacement of the life safety generator, no other change has been made to the source since the last Title V permit was issued.

The Air Quality Division (AQD) of the Department of Energy and Environment (the Department) received an application on November 7, 2017 to modify Title V permit 045 to reflect the replacement of the life safety generator. This application was not acted upon. A full

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permit renewal application was due on July 15, 2018. However, this application was submitted late. It was received by AQD on September 27, 2018. This permitting action addresses the renewal application and reflects the replacement of the life safety generator.

Routine operations of all generators are for testing once per month for maintenance purposes and for a five hour time period once per year for extended maintenance for a total of 17 hours of maintenance operating per year per generator in a normal year. Any additional hours of operation would be for emergency purposes only and does not exceed 440 hours per generator per year for the four 1,500 kW emergency generators (EG1, EG2, EG3, and EG4) and 125 hours per year for the 250 kW generator (LSEG1).

The facility also contains the following:

- Three 20,000-gallon underground storage tanks located near the east side of the building
- Two 150-gallon day tanks located inside the penthouse. The original Title V permit application indicated that the capacity of the day tanks was 250 gallons. However, the day tanks' actual capacity was confirmed during a site visit on August 14, 2013 to be 150 gallons.
- Two chillers located on the roof of the building adjacent to the penthouse.

EMISSIONS SUMMARY:

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

FACILITY-WIDE EMISSIONS SUMMARY [TONS PER YEAR]	
Pollutants	Potential Emissions
Sulfur Dioxide (SO ₂)	0.024
Oxides of Nitrogen (NO _x)	24.48
Total Particulate Matter (PM Total)	0.49
Volatile Organic Compounds (VOCs)	1.92
Carbon Monoxide (CO)	2.92

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

Verizon Washington DC, Inc. Southwest Central Office has the potential to emit approximately 0.024 tons per year (TPY) of sulfur dioxide (SO₂), 24.48 TPY of nitrogen oxides (NO_x), 0.49 TPY of particulate matter (PM & PM₁₀), 1.92 TPY of volatile organic compounds (VOC), and 2.92 TPY of carbon monoxide (CO).

Under normal maximum operating conditions for potential to emit determination (i.e., 500 hours per year per emergency generator), the combined potential emissions of the generators would have exceeded the major source threshold of 25 tons per year of NO_x, and thus trigger a Non-attainment New Source Review (NNSR) as well as the need for a Title V Operating Permit. In

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order to avert this possibility, the facility opted for operating hour restrictions (440 hours, each, in any given 12 month period for the 1,500 kW generators and 125 hours in any 12 month period for the 250 kW generator) to keep their potential to emit NO_x under the major source threshold and the NNSR trigger threshold. Because the District has no synthetic minor permitting program, the Air Quality Division (AQD) of DOEE is utilizing the Title V Operating Permit program as a vehicle for limiting the facility's operation so as to not trigger NNSR and avoid the need to acquire emission offset and installation of Lowest Achievable Emissions Rate (LAER) controls. Based on the operating restrictions taken in this permit, the NO_x potential emissions of this facility are currently just under the major source threshold in the District of Columbia of 25 TPY of NO_x. As stated earlier, the facility's Title V operating permit requirement is not based on the 25 TPY of NO_x, 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 THE 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 Operating 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.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in notes below):

Federal and District Enforceable:

20 DCMR Chapter 1 - General Rules

20 DCMR Chapter 2 - General and Non-Attainment Area Permits

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- 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 (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 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:

All stationary engines are subject to Chapter 2 permitting requirements, regardless of size. As such, all of the significant units at the facility are subject to Chapter 2 permitting requirements.

This is a permit renewal for purposes of the four 1,500 kWe emergency generator sets whose previously issued Chapter 2 permits were incorporated into the Title V permit at the time of the issuance of the previous Title V permit 034. For the newer life safety generator, AQD is incorporating the requirements of Chapter 2 Permit 6845, issued April 2, 2014 into the permit. Additionally, AQD is using Chapter 2 authority to update permit requirements where applicable.

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As such, the draft Title V permit will be issued for public notice pursuant to both Chapter 2 and Chapter 3 public notice requirements.

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 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 63.6604(b) for the non-NSPS engines and 40 CFR 60.4207(b) for the NSPS engine.

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

The engine of the life safety diesel emergency generator set is subject to 40 CFR 60, Subpart IIII. 40 CFR 60, Subpart IIII applies to stationary compression ignition internal combustion engines (CI-ICE) that: 1) are model year of 2007 or later, 2) commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 3) were modified or reconstructed after July 11, 2005.

The Department confirmed that the life safety diesel CI-ICE identified below is subject to 40 CFR 60, Subpart IIII:

Equipment Location	Emission Unit ID	Stack ID	Chapter 2 Permit No.	Emission Unit Description
Roof next to Penthouse	LSEG1	LSEG1	6845	One 250 kWe Caterpillar emergency generator with 355 hp Caterpillar Model C9ATAAC diesel engine (installed 2013)

The requirements of this regulation are incorporated throughout Condition III(b) of the permit for this unit.

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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 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 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 PTE 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.

Subpart ZZZZ is applicable to new or reconstructed compression ignition (CI) engines at this facility, where “new” is defined as those engines that are manufactured or reconstructed after June 12, 2006. The four 1,500 kWe emergency generator sets were installed in 2000 and are therefore considered “existing” rather than “new” with respect to this regulation.

“Existing” CI engines are covered by this regulation due the implications of the partial RICE vacatur (see <https://www.epa.gov/stationary-engines/technical-documents-neshap-reciprocating-internal-combustion-engines-0>). Any operation of the emergency generator sets to address low voltage or frequency situations would now be considered non-emergency operation, which the Department does not allow unless the unit is complying with either an NSPS (Subpart IIII or JJJJ) or NESHAP Subpart ZZZZ. As such, in order to be granted the non-emergency operation allowances in Subpart ZZZZ, this regulation was applied to the equipment.

All the existing emergency generators may now be operated for up to fifty (50) hours per calendar year in non-emergency situations therefore the Subpart ZZZZ is applicable to this facility.

The newer life safety generator engine is also subject to Subpart ZZZZ, but because it is “new” (installed in 2013), the only requirement placed on it by Subpart ZZZZ is to comply with NSPS Subpart IIII. As such, the requirements of Subpart ZZZZ are not cited in the permit, but rather NSPS Subpart IIII is cited.

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

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

Greenhouse Gas (GHG) Requirements:

Because Chapter 3 (Title V) was triggered for other reasons, 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

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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 was subject to one enforcement actions by AQD in the past three years. Specifically, a notice of infraction was issued to them on or about November 9, 2018 for failure to submit a timely Title V annual certification for calendar year 2017 (due March 1, 2018). A review of the Air Quality Compliance System (ACQS) indicates that a number of semi-annual and annual Title V reports were submitted late in recent years (2016 semi-annual, 2017 annual, 2017 semi-annual, and 2018 semi-annual). Additionally, the Title V renewal application was not submitted on time (due July 15, 2018, but not received until September 27, 2018). As a result, the current Title V Permit (No. 045) is expected to expire on January 15, 2019.

COMMENT PERIOD:

Beginning Date: February 1, 2019

Ending Date: March 4, 2019

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
stephen.ours@dc.gov

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 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 will be announced in the D.C. Register and on the Department's website.

POINT OF CONTACT FOR INQUIRIES:

Olivia Achuko
Environmental Engineer
District Department of the Environment
Air Quality Division

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1200 First Street NE, 5th Floor
Washington, DC 20002
(202) 535-2997

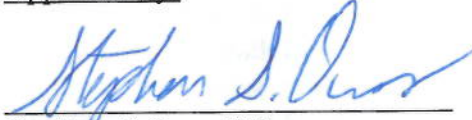
REVIEWS:

Prepared by:



Olivia Achuko
Environmental Engineer

Approved by:



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

SSO:OA

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