

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. 040-R1

APPLICANT AND PERMITTEE:

Children’s National Medical Center
111 Michigan Avenue, NW
Washington DC 20010-2970

FACILITY LOCATION:

Children’s National Medical Center
111 Michigan Avenue, NW
Washington DC 20010-2970

FACILITY DESCRIPTION:

Children’s National Medical Center is a hospital, whose emission sources consist of seven (7) diesel emergency generators; several above and underground storage tanks, fume hoods, wet cooling towers, chillers, x-ray/photography development equipment, natural gas fired kitchen equipment, and laboratory equipment. This permitting action is being taken to renew Title V permit No. 040, issued March 31, 2014.

The maximum operating hours for each of the 1,000 kW emergency generators are 500 hours per year. The maximum operating hours for each of the three (3) 1500 kW emergency generators are 225 hours which was adjusted from original request by the source during permit development process. During the review of the renewal application, it was discovered that the potential to emit will exceed the 25 tons per if 300 hours per unit (the previous limit) are used to calculate the PTE. This limit had previously been taken to avoid applicability of major New Source Review, but updated calculations showed that emission rates were higher than previously estimated. As a result, following a conference call with the applicant on September 23, 2019, the source went back to find out that the appropriate operating limit on the 1500 kW engines will be 225 hours. The recalculated emission calculations were received by email on February 11, 2020.

EMISSIONS SUMMARY:

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

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Plant-Wide Emissions Summary (tons per year)	
Pollutant	Potential Emissions
Sulfur Dioxide (SO ₂)	0.031
Oxides of Nitrogen (NO _x)	24.345
Total Particulate Matter (PM Total)	3.976
Volatile Organic Compounds (VOCs)	1.011
Carbon Monoxide (CO)	1.369

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

This facility has the potential to emit more than 25 tons per year of oxides of nitrogen (NO_x) if each of the seven (7) emergency generators operates for 500 hours per year. The source took a limit of 225 hours for each of the three (3) 1,500 kW emergency generators to avoid New Source Review applicability for the Chapter 2 permits. See the discussion in the "Facility Description" above. With this limit of operation, the plant-wide potential to emit for NO_x remained below the 25 tpy threshold. This kind of source would normally qualify as a synthetic minor, but the District of Columbia does not currently have a synthetic minor program. 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 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.

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REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in the regulation-specific discussions 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 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
- 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
- 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE)
- 40 CFR 82 - 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.*)

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 - Onroad Engine Idling and Nonroad Diesel 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 generator engines were subject to Chapter 2 permitting requirements.

AQD is using Chapter 2 authority to update permit requirements where applicable. As such, the draft Title V permit will be issued for public notice pursuant to both Chapter 2 and Chapter 3 public notice requirements.

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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 701 – Storage of Petroleum Products:

The requirements of 20 DCMR 701 do not apply to the source because all of the storage vessels located at the source have a capacity less than 40,000 gallons.

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 to “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, Subparts K, Ka, and Kb – Standards for Storage Vessels for Petroleum Liquids or Volatile Organic Liquids:

The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids or Volatile Organic Liquids (40 CFR 60, Subparts K, Ka, and Kb) do not apply to this facility for all of the storage vessels located at the source because for the purposes of Subparts K, Ka, and Kb all of the storage vessels at the source have a capacity less than 151,412 liters (40,000 gallons) for petroleum liquids or a capacity less than or equal to 75 cubic meters (m³) for volatile organic liquids as specified in 40 CFR 60, Subparts K, Ka, and Kb.

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

Pursuant to 40 CFR 60, NSPS Subpart IIII applies to stationary compression ignition internal combustion engines (CIICE): 1) with model years of 2007 or later, 2) that commenced

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construction after July 11, 2005 and were manufactured after April 1, 2006, or 3) that were modified or reconstructed after July 11, 2005.

The emergency generator engines at the facility met these criteria, therefore the regulation is applicable and its requirements have been incorporated into the permit for the units.

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines

This regulation is applicable as the generators are new commercial emergency stationary RICE located at an area source of HAP emissions. All units are considered new units under this regulation; therefore the only requirement is to comply with the requirements of 40 CFR 60, Subpart IIII.

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

The CAM rule does not apply to the emission units at the facility. The emissions units covered in the permit are engines. Individually, emissions from each of these units will not exceed the pre-control 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 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 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:

According to the U.S. Environmental Protection Agency's Enforcement and Compliance History Online (ECHO) database, there have been no identified air quality violation in the three years prior to this review. According to the Department's Air Quality Compliance System (AQCS), no enforcement actions have been taken against the facility in the past three years.

COMMENT PERIOD:

Beginning Date: May 22, 2020

Ending Date: June 22, 2020

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

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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
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002
(202) 535-2997

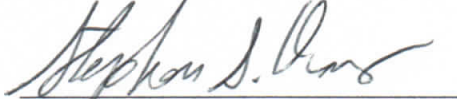
REVIEWS:

Prepared by:



Olivia Achuko
Environmental Engineer

Approved by:



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

SSO/OA