

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. 025-R3

APPLICANT AND PERMITTEE:

Wardman Hotel Owner LLC
2660 Woodley Road NW
Washington, DC 20008

FACILITY LOCATION:

Marriott Wardman Park Hotel
2660 Woodley Road NW
Washington, DC 20008

RESPONSIBLE OFFICIAL

Stan Hupert, Director of Engineering

FACILITY DESCRIPTION:

The Marriott Wardman Park Hotel is a hotel service facility covered by standard Industrial Classification (SIC) 7011. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. The facility units consist of:

- Three (3) dual-fire boilers Cleaver Brooks units;
- One (1) Caterpillar 1,000 kWe diesel-fired emergency generator set;
- One (1) Cummins 365 kWe diesel-fired emergency generator set;
- One (1) one diesel fire pump;
- One (1) carpentry shop paint booth; and
- Several miscellaneous/insignificant activities including: air conditioning and refrigeration operations, kitchen equipment, a cooking hood; a 20,000 fuel oil tank, and two cooling towers.

In May, 2016 the Air Quality Division (AQD), received three permit applications from Wardman Hotel LLC (the legal entity controlling the hotel at the time) to modify the three (3) dual fuel (natural gas and diesel fuel) boilers. The boilers were previously approved to burn natural gas and No. 4 fuel oil and they were upgraded to burn natural gas and No. 2 fuel oil (Permit #7112 - 7114). This upgrade resulted in the reduction of the potential to emit oxides of sulfur from the

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boilers. Particulate matter emissions will also be slightly reduced. The boilers are Cleaver Brooks model CB-100-700 units with a rated heat input capacity of 29.29 MMBtu/hr when burning natural gas and 30.31 MMBTU/hr when burning No. 2 fuel oil.

The Air Quality Division (AQD) of the Department of Energy and Environment (the Department) received the permit renewal application for the Title V permit in October, 2017 since the Title V permit was due to expire in April 2018. A revised application was received in January 2018 after some minor changes on the application were corrected. In September 2018, another revision was received to replace the January 2018 revised permit application after a recalculation of the potential to emit using manufacturer's emission factors instead of the AP-42 factors. This permitting action addresses the renewal application and reflects the modifications made since the last Title V permit.

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)	0.99
Oxides of Nitrogen (NO _x)	71.02
Total Particulate Matter (PM Total)	10.70
Volatile Organic Compounds (VOCs)	16.39
Carbon Monoxide (CO)	33.68

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

Due to this facility's potential to emit over 25 TPY of NO_x (71 tons per year, estimated), the major source threshold for NO_x in the District of Columbia, Marriott Wardman Park Hotel is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 20 DCMR Chapter 3.

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.

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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 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
- 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 Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 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.*)

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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, both of the generator engines and the fire pump engine are subject to Chapter 2 permitting requirements. The boilers have heat input ratings greater than 5 MMBTU/hr, and are therefore also subject to Chapter 2 permitting requirements. The carpentry shop paint booth is also subject.

The boilers at this source were modified (as defined in 20 DCMR 199) in 2016 through the Chapter 2 permit process (Permit #7112-7114). The conditions of the Chapter 2 permits will be incorporated into this Title V permit renewal (No. 025-R3). Additionally, 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.

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 700 - Miscellaneous Volatile Organic Compounds (VOCs)

The facility has a wood working spray paint booth at the carpentry shop in the basement of the facility. This painting operation is subject to the VOC limit regulation of 20 DCMR 700, the requirements of which have been incorporated into the permit.

20 DCMR 801: Sulfur Content of Fuel Oils:

This regulation limits fuel oil sulfur content to 1% by weight in all circumstances. Additionally, the regulation regulates commercial fuel oil classified as No. 2 fuel oil. After July 1, 2016, for commercial fuel oil classified as No. 2 fuel oil, the limit is 0.05% by weight (500 ppm) and, after July 1, 2018, the limit is 0.0015% by weight (15 ppm). As a result, a limit on fuel oil sulfur content was placed in the permit for the boilers limiting purchases of fuel oil to the 15 ppm level (except when EPA temporarily suspends or increases the limit, as allowed in 20 DCMR 801).

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However, these boilers have been limited to 0.0015% sulfur by weight No. 2 fuel oil since the original permitting of the units for use of that fuel in 2016 pursuant to 20 DCMR 201 authority. As such, there is no language incorporated to allow for use of higher sulfur fuel that was in the tank prior to the above applicability deadlines.

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

Pursuant to 40 CFR 60, NSPS Subpart III applies to stationary compression ignition internal combustion engines (CIICE): 1) with model years of 2007 or later, 2) that commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 3) that were modified or reconstructed after July 11, 2005. The dates of installation of the fire pump and 365 kWe generator set are unknown (possibly 1974), but are older than the 1,000 kWe generator set that was manufactured in 2000. As such, this subpart does not apply to any of the diesel emergency engines at this site.

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

Certain combustion units operating as dual fuel boilers are subject to NSPS Subpart Dc. Applicability for NSPS for boilers 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 constructed, modified, or reconstructed 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 three (3) dual fuel boilers in operation, each having a heat input capacity of 30.31 MMBTU/hr when burning No. 2 fuel oil. According to the application, these boilers were installed in 1974, and were originally strictly oil-fired. At some subsequent date, they were converted to dual-fuel units, also burning natural gas. In 2016 the units' oil-firing capacity was converted from No. 4 fuel oil to No. 2 fuel oil. No change to burners occurred at that time.

Clearly the boilers meet the size threshold for applicability under Subpart Dc (i.e., their heat input rating is between 10 and 100 MMBTU/hr. However, regarding the age threshold, they were installed before June 9, 1989. It is highly unlikely that the original conversion to a dual-fuel status would have triggered the definition of reconstruction at 40 CFR 60.15 as it is very unlikely that such a conversion would have cost equivalent to half the cost of installing equivalent new equipment. Similarly, the 2016 conversion from No. 4 oil to No. 2 oil would not have triggered that threshold.

The definition of "modification" in 40 CFR 60.2 defines it as "any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted." NSPS Subpart Dc regulates SO₂ and particulate matter. Emissions of these pollutants would not have increased either when the unit was converted to a dual-fuel status or when the fuel oil capacity was switched from No. 4 to No. 2 oil. As such, the units were not "modified" pursuant to the NSPS definition.

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Based on this analysis, the units have not been constructed, reconstructed, or modified after June 9, 1989, and thus are not subject to NSPS Subpart Dc.

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 three emergency generator sets were installed prior to this date 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.

The applicant wanted authorization to operate the existing emergency generators for up to fifty (50) hours per calendar year in non-emergency situations, therefore the Subpart ZZZZ requirements have been applied to the equipment and incorporated into the permit.

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

The facility has three modified dual fuel (natural gas and No. 2 fuel oil) fired boilers at the facility. Pursuant to this regulation, the Permittee must submit an initial notification to EPA. Marriott Wardman Park must also perform biennial tune-ups of the boiler, submit biennial reports, have a one-time energy assessment performed, and keep various records. The requirements of this regulation have been incorporated into the permit.

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40 CFR Part 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

This regulation covers three types of painting operations: 1) paint stripping operations that use methylene chloride, 2) auto body refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations, and 3) spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd). The facility has confirmed that they do not perform any of these activities. Therefore, the permit has been written to prohibit these activities, and the regulation is therefore not applicable.

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 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:

On October 16, 2018, AQD issued an Enforcement Notice citing Marriott Wardman Park for fuel sulfur content exceedances. The facility admitted the violation and paid the associated fine.

The facility also failed stack tests performed in February 2018. It was determined that the reason for the failure for NO_x is that Marriott Wardman Park Hotel has previously represented in permit applications that they had low NO_x burners installed (and used associated emission factors that were the basis of the previously established emission limits), when, in fact, they did not have them installed. They also conjectured that VOC emissions were high due to difficulties maintaining load levels required during the test. The NO_x emission limits are being changed in this permitting action to address the incorrect technical data previously submitted.

COMMENT PERIOD:

Beginning Date: July 26, 2019

Ending Date: August 26, 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

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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:

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REVIEWS:

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