

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. 006-R2

APPLICANT AND PERMITTEE:

Howard University
2400 6th Street, NW, Suite 440
Washington, DC 20059

FACILITY LOCATION:

Howard University
2400 6th Street, NW
Washington, DC 20059

RESPONSIBLE OFFICIAL

Tashni-Ann Dubroy, Ph.D., Executive Vice President and COO

FACILITY DESCRIPTION:

Howard University (HU) is a College and University (Standard Industrial Classification code (SIC) 8221, North American Industry Classification System (NAICS) code 611310).

HU was last issued a Chapter 3 (Title V) permit (No. 006) on September 27, 2004. HU did not submit a timely renewal application, thus that permit expired on September 24, 2009. However, a subsequent court consent decree required that the facility comply with that permit until a new Title V permit was issued. HU initially submitted a renewal application on May 1, 2009, but this application was incomplete. Several efforts were made to correct the application over the succeeding years. Eventually, the Department of Energy and Environment (the Department) received a substantially revised and updated permit application on March 1, 2019, with supplemental information received June 7, 2019 and January 22, 2021. This permitting action is to address this Title V application.

It should be noted that Howard University has multiple facilities that are related to it in some way including West Campus, Provident Resources Group, Inc., Howard University Hospital, and Corvias Campus Living - HU LLC. Prior to acting upon these applications, the Air Quality Division (AQD) has performed extensive analysis to determine whether certain entities should be aggregated into a single facility with Howard University. The following describes the results of these determinations:

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1. Corvias Campus Living - HU LLC should be permitted separately, but be aggregated together for 20 DCMR Chapter 3 (Title V) and New Source Review (NSR) permitting purposes. (See “Aggregation Status and Source Classification of Corvias Campus Living – HU LLC with Howard University” letter dated December 14, 2018);

Corvias Campus Living - HU LLC Significant Emission Units		
Emission Unit ID	Emission Unit Identification	Description
EG-1	Cummins Model No. NT855-G3 generator set located at Howard Plaza Towers East	250 kWe generator set powered by a 390 hp diesel engine, installation date: 1987 (non-NSPS)
EG-2	Cummins Model No. NT855-G3 generator set located at Howard Plaza Towers West	250 kWe generator set powered by a 390 hp diesel engine, installation date: 1987 (non-NSPS)
EG-3	Cummins Model No. 6CTA8.3-G generator set located at George Cook Hall	175 kWe generator set powered by a 277 hp diesel engine, installation date: 1992 (non-NSPS)
EG-4	Kubota Model No. V2203-M-BG-ET02 generator set located at Charles Drew Hall	20 kWe generator set powered by a 36 hp diesel engine, installation date: To be determined (permitted, not yet installed) (NSPS)

2. Howard University Hospital is appropriately disaggregated from the Main Campus for all air quality permitting purposes. (See “Aggregation Status and Source Classification of Howard University Hospital with respect to Howard University” letter dated December 14, 2018.);
3. The West Campus is appropriately disaggregated from the Main Campus for all air quality permitting purposes. (See “Disaggregation Status and Source Classification of Howard University West Campus” letter dated October 26, 2018.); and
4. Provident Resources Group Inc. should be permitted separately, but be aggregated together for 20 DCMR Chapter 3 (Title V) and New Source Review (NSR) permitting purposes. (See “Aggregation Status and Source Classification of Provident Resources Group Inc. with Howard University” letter dated November 24, 2020).

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Provident Resources Group Inc. Significant Emission Units		
Emission Unit ID	Location	Description
EG-1	AXIS	250 kWe generator set powered by a 395 hp natural gas-fired engine
EG-2	Tubman Quad	400 kWe generator set powered by a 605 hp natural gas-fired engine
EG-3	College Hall North	100 kWe generator set powered by a 198 hp diesel engine
EG-4	College Hall South	130 kWe generator set powered by a 198 hp diesel engine

The Title V permit application for HU listed the following sources of air emissions (excluding identified miscellaneous/ insignificant sources):

Boilers				
Emission Unit ID	Emission Unit Name	Location	Heat Input Capacity (MMBtu/hr)	
HUSC #4	CU-18	2244 10th St NW	8.27	
Power Plant Temporary Boiler #3	CU-19	2240 6th Street NW	37	
Power Plant Temporary Boiler #4	CU-20	2240 6th Street NW	37	
Power Plant Temporary Boiler #5	CU-21	2240 6th Street NW	37.8	
Power Plant Temporary Boiler #6	CU-22	2240 6th Street NW	37	
Howard University Hospital (HUH) Temporary Boiler	CU-23	2041 Georgia Avenue NW	37	
Generator Sets ¹				
Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Fuel
EG-1	Admin Building	250	419	Diesel
EG-2	Bethune Annex	350	587	Diesel
EG-8	College of Medicine #1	125	210	Diesel
EG-18	New Health Science Library	350	587	Diesel
EG-23	WHUR 96.3	50	84	Diesel

¹ All generator sets listed are emergency generator sets except GEN-35.

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EG-29	HUSC #1	25	50	Diesel
EG-30	HU Middle School	65	101	Diesel
EG-31	College of Pharmacy	100	157.5	Diesel
EG-32	Wonder Plaza Portable Trailer Mtd.	200	314	Diesel
EG-33	WHUT TV	150	237	Diesel
EG-34	HUIRB	350	536	Natural Gas
GEN-35	College of Medicine #2	30	49	Diesel
EG-36	Cramton Auditorium	150	275	Diesel
EG-39	College of Dentistry	30	84	Natural Gas
EG-45	Medical Arts Building #2	20	36.3	Diesel
Other Significant Units				
HUSC Gasoline Dispensing Station with one nozzle				
One (1) 6,000 gallon gasoline underground storage tank (UST-2)				

In addition, the facility maintains the following miscellaneous/insignificant sources:

- One (1) Underground Storage Tank (UST) for diesel;
- Fifteen (15) Aboveground Storage Tanks (ASTs) for diesel;
- Twenty-four induced draft cooling towers;
- Laboratory fume hoods;
- Morgue;
- Photography developing equipment;
- Woodworking shop dust collection systems in the Sculpture and Fine Arts Buildings; and
- Forty-four natural gas-fired external combustion units with heat input ratings less than 5 MMBTU/hr.

The printing activities at the site were considered for inclusion as miscellaneous/insignificant sources, but given the types of activities present (standard office printers and photocopiers), the emissions are considered trivial and will not be referenced in the permit.

Howard University has removed the following units since submission of this TV permit application on March 1, 2019. Documentation that the units were rendered inoperable was received on February 5, 2021 for EG-47 and EG-20 and on June 21, 2021 for EG-15.

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Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Fuel
EG-47	HURB 1 Building Emergency Generator Set	250	419	Diesel
EG-20	School of Religion Emergency Generator Set	110	168	Diesel
EG-15	HUSC #2	250	380	Diesel

EMISSIONS SUMMARY:

Pollutant	Estimated Potential to Emit (tons per year)			
	Howard University	Support Facility Contributions		Total Facility-Wide PTE
		Corvias	Provident	
Oxides of Sulfur (SO _x)	0.46	0.07	0.06	0.60
Oxides of Nitrogen (NO _x)	61.29	14.09	9.30	84.68
Total Particulate Matter (PM Total) [‡]	27.62	2.61	0.78	31.01
PM10	26.25	2.61	0.78	29.64
PM2.5	26.25	2.61	0.78	29.64
Volatile Organic Compounds (VOCs)	8.97	1.30	0.63	10.89
Carbon Monoxide (CO)	38.57	11.49	9.59	59.65
Total Hazardous Air Pollutants (HAPs)	2.84	0.23	0.19	3.25

[‡] PM Total includes both filterable and condensable particulate matter fractions.

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

This facility has the potential to emit 84.68 tons per year of oxides of nitrogen (NO_x). The value for this criteria pollutant exceeds the major source thresholds in the District of Columbia of 25 TPY of NO_x. Because potential emissions of NO_x exceed the relevant major source threshold, 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

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DCMR 500.1.

The draft Title V 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 will be issued to include updated requirements established pursuant to 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 noted in the 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 704 - Stage I Vapor Recovery
- 20 DCMR 705 - Stage II Vapor Recovery
- 20 DCMR 774 - Architectural and Industrial Maintenance Coatings
- 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 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
- 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
- 40 CFR 61, Subpart M - National Emission Standard for Asbestos
- 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines
- 40 CFR 63, Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

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

40 CFR 82 - Protection of Stratospheric Ozone (Federally enforceable only except through Title V) (*Note: The Air Quality Division [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 800 - Control of Asbestos.

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 1408 - Emission Standards for Hazardous Air Pollutants for Gasoline Dispensing Facilities

20 DCMR 1410 - Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers

Facility-Wide Regulation Review

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

A Compliance Assurance Monitoring Plan (CAM) does not apply to the emission units at HU that are covered by the draft Title V permit. The individual “pollutant-specific emissions units” at the facility do not have the potential to emit, pre-control, at or above the major source threshold for any pollutant; therefore none of the units meet the criteria for CAM applicability.

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 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.

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

All boilers, stationary engines, gasoline tanks, and gasoline dispensing stations are subject to Chapter 2 permitting requirements. As such, all of the significant units at the facility are subject to Chapter 2 permitting requirements.

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

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Chapter 3 public notice requirements. The requirements of the following permits issued under the authority of 20 DCMR Chapter 2 (approval numbers are listed where the unit is covered by a source category permit; the source category permit number is the first six characters of the approval number) have been incorporated into the draft Title V permit and updated where appropriate.

Boilers				
Emission Unit ID	Emission Unit Name	Location	Chapter 2 Permit No.	Approval Date
HUSC #4	CU-18	2244 10th Street NW	7231	11/20/2018
Power Plant Temporary Boiler #3	CU-19	2240 6th Street NW	7248	12/1/2020
Power Plant Temporary Boiler #4	CU-20	2240 6th Street NW	7249	12/1/2020
Power Plant Temporary Boiler #5	CU-21	2240 6th Street NW	7250	12/1/2020
Power Plant Temporary Boiler #6	CU-22	2240 6th Street NW	7251	12/1/2020
Howard University Hospital (HUH) Temporary Boiler	CU-23	2041 Georgia Avenue NW	7252	12/1/2020
Generator Sets²				
Emission Unit ID	Emission Unit Location	Source Category Permit Approval Number	Approval Date	
EG-1	Admin Building	--	--	
EG-2	Bethune Annex	--	--	
EG-8	College of Medicine #1	--	--	
EG-18	New Health Science Library	--	--	
EG-23	WHUR 96.3	--	--	
EG-29	HUSC #1	7115-SC-0070	9/27/2018	
EG-30	HU Middle School	7115-SC-0069	9/27/2018	
EG-31	College of Pharmacy	7048-SC-0101-R1	9/14/2020	
EG-32	Wonder Plaza Portable Trailer Mtd.	7048-SC-0041-R1	9/14/2020	

² All generator sets listed are emergency generator sets except GEN-35.

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EG-33	WHUT TV	7048-SC-0148-R1	9/14/2020
EG-34	HUIRB	7043-SC-0030-R1	9/14/2020
GEN-35	College of Medicine #2	7302	2021
EG-36	Cramton Auditorium	7048-SC-0042-R1	9/14/2020
EG-39	College of Dentistry	7116-SC-0004	9/27/2018
EG-45	Medical Arts Building #2	7115-SC-0074	11/6/2018

20 DCMR 205 – Permit Requirements for New Source Performance Standards (NSPS):

The requirements of this section adopt the federal NSPS codified in 40 CFR 60. See discussion below for New Source Performance Standards.

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 715 – Major Source and Case-By-Case Reasonably Available Control Technology (RACT):

The requirements of 20 DCMR 715 do not apply to the source because the VOC PTE of the source is less than 25 tons per year.

Emission Unit-Specific Regulation Review**Boilers****20 DCMR 204 – Permit Requirements for Major Stationary Sources Located in Non-attainment Areas (Non-attainment New Source Review (NNSR)):**

Requirements were previously established to avoid the applicability of 20 DCMR 204 to the five temporary boilers in Condition III(c) permit Nos. 7248 through 7252. These limits have been transferred into the Title V permit in Condition III(d)(2)(C). They consist of a 1,271 MMscf/yr natural gas usage limit and a 799 Mgal ultra-low sulfur diesel usage limit, both applied in aggregate to the five temporary boilers over any 12-consecutive month period.

20 DCMR Chapter 6, Section 600: Fuel Burning Particulate Emission

Total suspended particulate emission from each of the five temporary boilers shall not exceed 0.07 pounds per million BTU. This requirement is contained in Condition III(d)(1)(D) of the permit.

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Total suspended particulate emission from the HUSC #4 boiler shall not exceed 0.11 pounds per million BTU. This requirement is contained in Condition III(d)(1)(D) of the permit.

20 DCMR Chapter 6, Section 606: Visible Emissions

The visible emissions limitations of 20 DCMR 606.1 are applicable to all units. Visible emissions shall not be emitted into the outdoor atmosphere from the operation of the these units; provided, that discharges not exceeding forty percent (40%) opacity (unaveraged) shall be permitted for two minutes in any sixty (60) minute period and for an aggregate of twelve (12) minutes in any twenty-four hour (24 hr.) period during start-up, or malfunction of equipment. This requirement is contained in Condition III(d)(1)(B) of the permit. Specific testing requirements related to this regulation are also included in the permit.

Note that language has been included in the permit notifying the facility that there is an outstanding call for a State Implementation Plan (SIP) revision from EPA that may result in revisions to the applicable regulation. As such, if the regulation is changed, the new regulatory requirements will superseded those expressed in the permit specifically.

20 DCMR Chapter 8, Section 801: Sulfur Content of Fuel Oils

The purchase, sale, offer for sale, storage, transport, or use of No. 2 commercial fuel oil limitation of 20 DCMR 801.3 is applicable to these units (except the HUSC #4 boiler, which is only permitted to burn natural gas). On and after July 1, 2018, the purchase, sale, offer for sale, storage, transport, or use of number two (No. 2) commercial fuel oil is prohibited if it contains more than fifteen parts per million (15 ppm) or fifteen ten-thousandths percent (0.0015%) by weight of sulfur, unless otherwise specified in § 801.4 and 801.5.

Therefore, a limit of 0.0015% sulfur by weight has been included in Condition III(d)(2)(B) of the permit.

20 DCMR Chapter 8, Section 804: Nitrogen Oxides Emissions

These units are fossil-fuel-fired steam-generating units with a heat input less than 100 MMBTU/hr. Therefore, this regulation is not applicable.

20 DCMR Chapter 8, Section 805: Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen (NOx RACT)

NOx RACT is applicable to this facility pursuant to 20 DCMR 805.1(a) because it is a major source of NOx. The five temporary boilers are fossil-fuel-fired steam-generating units with a heat input greater than 20 MMBTU/hr at a major stationary source of NOx. 20 DCMR 805.5(a) is applicable to all five of the temporary boilers. No specific RACT level is defined in the regulation for the HUSC #4 boiler, but AQD has previously considered annual combustion tuning pursuant to 20 DCMR 805.8 to meet the requirements of this regulation for similar units. As such, requirements from 20 DCMR 805 were placed in the permit. Specifically, the requirement to perform combustion adjustments pursuant to 20 DCMR 805.8 are found in Conditions III(d)(1)(E) and III(d)(4)(I).

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20 DCMR Chapter 14, Section 1410: Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers

20 DCMR 1401.1 adopts 40 CFR 63, Subpart JJJJJ by reference. Please see the more detailed discussion of the federal regulation below.

40 CFR 60, Subpart D - Standards of Performance for Fossil-Fuel-Fired Steam Generators

The requirements of 40 CFR 60, Subpart D are not applicable to the boilers because they each have heat input rates of less than 250 MMBtu/hr.

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

The requirements of 40 CFR 60, Subpart Db are not applicable to the boilers because they each have heat input rates of less than 100 MMBtu/hr.

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

Subpart Dc of 40 CFR Part 60 sets forth the standards of performance for small industrial-Commercial-Institutional steam generating units (ICI boilers) with maximum design heat input capacity less than 100 MMBtu/hr and greater than or equal to 10 MMBtu/hr. This subpart includes steam generating units for which construction, modification, or reconstruction commenced after June 9, 1989. Note that the five temporary boilers do not meet the definition of a temporary boiler as defined in 60.41c because each unit is a steam generating unit or a replacement that will remain at a location for more than 180 consecutive days.

Each of the temporary boilers has a maximum heat input of 37.0 MMBtu/hr or 37.8 MMBtu/hr and is therefore subject to this subpart. The permit contains the relevant requirements in Condition III(d)(1)(C), for visible emissions, and a streamlined fuel sulfur requirement in Condition III(d)(2)(B).

Because the power plant temporary boilers are not connected to a fuel oil supply, the testing requirements of 40 CFR 60.8 do not yet apply and will not apply until such time as they are connected. See 40 CFR 60.43c(c). The testing requirements of 40 CFR 60.8 do apply to the HUH Temporary Boiler. Visible emissions testing was performed in December 2019.

This regulation is not applicable to the HUSC #4 boiler because the unit is below the size applicability threshold of 10 MMBTU/hr heat input.

40 CFR 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

The requirements of 40 CFR 63, Subpart DDDDD are not applicable to the boilers because Howard University is not a major source of HAPs.

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

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Howard University is considered an area source of HAP emissions. This facility does not emit or have a potential to emit 10 tons per year or more of a single hazardous air pollutant (HAP) or 25 tons per year or more of any combination of HAPs.

The requirements of 40 CFR 63, Subpart JJJJJ are not applicable to the Power Plant Temporary Boilers #3, #4, #5, and #6 or HUSC #4 at Howard University. Pursuant to 40 CFR 63.11195(e), boilers that meet the definition of a gas-fired boiler are not subject to this subpart and to any requirements in this subpart. All of these boilers operate primarily on natural gas (except the HUSC #4 boiler, which operates solely on natural gas) and will burn liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. This requirement is contained in Condition III(d)(2)(D) of the permit. Note that all of these boilers would require rental tanks to be brought on-site, as all of the boilers are not currently connected to a ULSD supply, but have the ability to burn liquid fuel. Therefore, the boilers meet the definition of gas-fired boiler and are not subject to the requirements of 40 CFR 63, Subpart JJJJJ.

The HUH temporary boiler will burn natural gas and ULSD, has a heat input rating greater than 10 MMBTU/hr, and was constructed after June 4, 2010. It is the intent of Howard University to combust NG as the primary fuel and have the flexibility to fire ULSD during certain times of maximum steam demand when the facility deems it necessary. Pursuant to 40 CFR 63.11194, 63.11200 and 63.11237, the HUH Temporary Boiler is subject to the requirements of Subpart JJJJJ. Therefore, the following Subpart JJJJJ work practice standards and management practices apply to the HUH temporary boiler:

1. Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. [40 CFR 63.11201(b)]
2. Conduct a tune-up of the boiler biennially as specified in §63.11223. [40 CFR 63.11201(b)]
3. At all times you must operate and maintain the boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.11205(a)]

Compliance will be demonstrated as specified in 40 CFR 63.11223. Records shall be kept and notifications shall be submitted as specified in 40 CFR 63.11225. All requirements of 40 CFR 63, Subpart JJJJJ have been incorporated into the permit. Certain relevant requirements have been streamlined with other regulatory requirements, as noted in the permit.

Additionally, as a result of the applicability of this subpart, certain notification and reporting requirements are applicable to the HUH Temporary Boiler. These are included in Conditions III(d)(5)(B), (E), (H), and (I).

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Additional reporting is required if certain changes are made to the equipment, as specified in Condition III(d)(5)(F) and (G).

Note that the five temporary boilers do not meet the definition of a temporary boiler as defined in 63.11237 because each unit is a boiler or a replacement that remains at a location within the facility and performs the same or similar function for more than 12 consecutive months.

Emergency Generator Sets**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 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 emergency engines. Pursuant to 20 DCMR 805.1(c)(2), the requirements of 20 DCMR 805 do not apply if “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 Conditions III(a)(2)(A), III(b)(2)(A), and III(c)(2)(A) of the permit.

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

The engines of five diesel emergency generator sets at the facility are subject to 40 CFR 60, Subpart IIII. 40 CFR 60, Subpart IIII applies to stationary compression ignition internal combustion engines (CI-ICE) that: 1) commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 2) were modified or reconstructed after July 11, 2005.

The five (5) diesel CI-ICE identified below are subject to 40 CFR 60, Subpart IIII:

Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Date of Manufacture	Install Date
EG-31	College of Pharmacy	100	157.5	2006	Unknown
EG-32	Wonder Plaza Portable Trailer Mtd.	200	314	2006	2008
EG-33	WHUT TV	150	237	4/28/2014	2014
GEN-35	College of Medicine #2	30	49	2006	2010
EG-36	Cramton Auditorium	150	275	2011	2011

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The requirements of this regulation are incorporated throughout Condition III(b) of the permit for these units and Condition III(g) of the permit for College of Medicine #2.

The engines listed below of the diesel emergency generator sets at the facility are not subject to 40 CFR 60, Subpart IIII because 40 CFR 60, Subpart IIII applies to stationary compression ignition internal combustion engines (CI-ICE) that: 1) commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 2) were modified or reconstructed after July 11, 2005. The engines listed below were manufactured before April 1, 2006.

Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Fuel	Install Date
EG-1	Admin Building	250	419	Diesel	1993
EG-2	Bethune Annex	350	587	Diesel	1994
EG-8	College of Medicine #1	125	210	Diesel	1980
EG-18	New Health Science Library	350	587	Diesel	2001
EG-23	WHUR 96.3	50	84	Diesel	1980
EG-29	HUSC #1	25	50	Diesel	Unknown
EG-30	HU Middle School	65	101	Diesel	2005
EG-45	Medical Arts Building #2 (trailer mounted)	20	36.3	Diesel	2014 [†]

40 CFR 60, Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

The engine of one natural gas emergency generator set at the facility is subject to 40 CFR 60, Subpart JJJJ. 40 CFR 60, Subpart JJJJ applies to stationary spark ignition internal combustion engines (SI-ICE) that: 1) commenced construction after June 12, 2006, or 2) were modified or reconstructed after June 12, 2006.

The one (1) natural gas SI-ICE identified below is subject to 40 CFR 60, Subpart JJJJ:

Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Date of Manufacture	Install Date
EG-34	HUIRB	350	536	2/20/2014	2015

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

The engine listed below of the natural gas emergency generator set at the facility is not subject to 40 CFR 60, Subpart JJJJ because 40 CFR 60, Subpart JJJJ applies to stationary spark ignition

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internal combustion engines (SI-ICE) that: 1) commenced construction after June 12, 2006, or 2) were modified or reconstructed after June 12, 2006. The engine listed below was manufactured before June 12, 2006.

Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Fuel	Install Date
EG-39	College of Dentistry	30	84	Natural Gas	1980

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (NESHAP for RICE):

40 CFR 63, Subpart ZZZZ applies to stationary reciprocating internal combustion engines (RICE) at major or area sources of HAP emissions to regulate/monitor 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 potential to emit 10 TPY of any single HAP or 25 TPY of any combination of HAPs, is considered a major source. Any source that is not a major source is an area source. Because this facility does not have the potential to emit more than 10 TPY of a single HAP or an aggregate of more than 25 TPY of total HAPs, it is an area source. Therefore the area source NESHAP requirements of Subpart ZZZZ are applicable to this facility. Subpart ZZZZ is applicable to new or reconstructed diesel compression ignition (CI) and natural gas spark ignition (SI) engines at this facility, where “new” is defined as those engines that are manufactured or reconstructed after June 12, 2006. However, the only requirements for these units are to comply with 40 CFR 60, Subpart IIII and 40 CFR 60, Subpart JJJJ, as applicable. This situation affects the six generator sets (EG-31, EG-32, EG-33, EG-35, EG-36, and EG-34) previously discussed as covered by 40 CFR 60, Subpart IIII and 40 CFR 60, Subpart JJJJ. Only the NSPS requirements have been cited in the permit for these units because Subpart ZZZZ does not add any additional compliance requirements.

“Existing” CI and SI engines are also covered by this regulation. The engines associated with generator sets at the facility fall into this category as shown in the following table:

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Emission Unit ID	Emission Unit Location	Generator Output (kWe)	Engine Output (bhp)	Fuel	Install Date
EG-1	Admin Building	250	419	Diesel	1993
EG-2	Bethune Annex	350	587	Diesel	1994
EG-8	College of Medicine #1	125	210	Diesel	1980
EG-18	New Health Science Library	350	587	Diesel	2001
EG-23	WHUR 96.3	50	84	Diesel	1980
EG-29	HUSC #1	25	50	Diesel	Unknown
EG-30	HU Middle School	65	101	Diesel	2005
EG-39	College of Dentistry	30	84	Natural Gas	1980
EG-45	Medical Arts Building #2 (trailer mounted)	20	36.3	Diesel	2014 [†]

The requirements of this regulation are incorporated throughout Condition III(a) of the permit for these units.

Laboratory fume hoods, morgue, and photography developing equipment

20 DCMR Chapter 7: Volatile Organic Compounds and Hazardous Air Pollutants

20 DCMR 700 is applicable to the laboratory fume hoods, morgue, and photography developing equipment because the units are not subject to subsequent sections of Chapter 7. These units are used on a small scale in classroom settings. Pursuant to 20 DCMR 700.2, no person shall discharge into the atmosphere more than fifteen (15) pounds of volatile organic compound (VOC) emissions in any one (1) day, nor more than three pounds (3 lb.) in any one (1) hour, from any combination of articles, machines, units, equipment, or other contrivances at a facility, unless the uncontrolled VOC emissions are reduced by at least ninety percent (90%) overall capture and control efficiency. The requirements of this regulation are incorporated in Condition IV(d) of the permit for these units.

Woodworking

20 DCMR 603 – Particulate Process Emissions:

The requirements of 20 DCMR 603 are not included in the permit for the woodworking shop dust collection systems in the Sculpture and Fine Arts Buildings because the units vent indoors. However, the permit establishes that all captured dust emissions shall be controlled by an exhaust system attached to a baghouse unit which collects the particulates into a barrel and vents within the building. Additionally, the baghouse unit shall be maintained in accordance with the recommendations of the manufacturer.

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Tanks

20 DCMR Chapter 7: Volatile Organic Compounds and Hazardous Air Pollutants

The requirements of 20 DCMR 700 were not included in the permit as they are not applicable when 20 DCMR 704 and 20 DCMR 705 are applicable. The gasoline fueling system is subject to 20 DCMR 704 and 20 DCMR 705 because of the size of the gasoline storage tank. Sections 20 DCMR 704 and 20 DCMR 705 are the District's primary regulations for controlling air emissions from the transfer of volatile organic compounds or gasoline from any delivery storage container (Stage I Vapor Recovery), and the transfer of gasoline to any vehicular fuel tank from any stationary storage container (Stage II Vapor Recovery). The requirements of these regulations have been included in the permit.

20 DCMR 701 – Storage of Petroleum Products:

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

20 DCMR 704 – Stage I Vapor Recovery:

The fueling system includes one 6,000 gallon gasoline underground storage tank. This tank capacity exceeds the threshold value of 250 gallons for the applicability of 20 DCMR 704.1, hence the fueling system is subject to 20 DCMR 704 and the requirements of this regulation have been included in the permit.

20 DCMR 705 – Stage II Vapor Recovery:

The fueling system involves the use of one (1) gasoline dispensing nozzle, dispensing less than ten thousand (10,000) gallons of gasoline per month, with an average annual throughput from the fueling system of approximately 40,000 gallons. The facility is not available to the general public or to segments of the general public by virtue of having some membership or military status. Consequently, pursuant to 20 DCMR 705.3, this facility is not exempt from the requirements of Section 705.1 of 20 DCMR. Hence the fueling system is subject to 20 DCMR 705 and the requirements of this regulation have been included in 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 the storage vessels located at the source because for the purposes of Subparts K, Ka, and Kb 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 63, Subpart CCCCCC – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities:

40 CFR 63, Subpart CCCCCC applies to any existing or new gasoline distribution facility that is

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located at an area source of HAPs as defined in 40 CFR 63.2 (See 40 CFR 63.11111(a)). The facility has a gasoline dispensing facility, including a gasoline storage tank with a throughput of less than 10,000 gallons per month as confirmed by information provided by the applicant. Thus 40 CFR 63, Subpart CCCCCC was determined to be applicable and the requirements of 40 CFR 63.11116 apply to the facility per 40 CFR 63.11111(b).

Permit shields:

HU submitted Attachment 8 – Non-Applicable Regulations for Permit Shield in their TV application, requesting a permit shield for several regulations. As a matter of policy, AQD does not grant permit shields at this time.

COMPLIANCE HISTORY:

The applicant has been subject to enforcement actions by AQD in the past three years. Air quality violations have been identified by the Compliance and Enforcement Branch and in EPA's Enforcement and Compliance History Online (ECHO) database over the last three years. HU is subject to amended consent decree case no. 2019 CA 000068 B and has been working with AQD to correct air quality violations. One of the requirements of the consent decree is to obtain a new Title V permit to replace expired permit No. 006. This requirement is being addressed via this permitting action.

COMMENT PERIOD:

Beginning Date: July 30, 2021

Ending Date: August 30, 2021

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 Title V 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 shall be announced in the District Register and a daily newspaper.

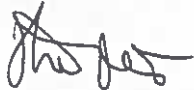
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POINT OF CONTACT FOR INQUIRIES:

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REVIEWS:

Prepared by:



Thomas Olmstead
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TJO

Approved by:



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