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. 055

APPLICANT AND PERMITTEE:

Corvias Campus Living – HU LLC 1405 South County Trail, Suite 530 East Greenwich RI 02818

FACILITY LOCATION:

Howard University 2251 Sherman Ave NW Washington DC 20001

RESPONSIBLE OFFICIAL

Timothy Toohey, Managing Director

FACILITY DESCRIPTION:

Corvias Campus Living – HU LLC provides Business Services, Not Elsewhere Classified (Standard Industrial Classification code (SIC) 7389, North American Industry Classification System (NAICS) code 561499). The facility's emission unit inventory primarily consists of four (4) diesel-fueled emergency generator sets.

This is the first Chapter 3 (Title V) permit application for Corvias Campus Living – HU LLC. The Department of Energy and Environment (the Department) received a Chapter 3 (Title V) permit application on October 1, 2019. This permitting action is to address this Title V application.

It should be noted that Corvias Campus Living – HU LLC is a support facility for Howard University. Prior to acting upon this application, the Air Quality Division (AQD) performed an extensive analysis to determine whether certain entities, including Corvias Campus Living – HU LLC should be aggregated into a single facility with Howard University. It was determined that Howard University and 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 the letter regarding "Aggregation Status and Source Classification of Corvias Campus Living – HU LLC with Howard University" signed by Stephen S. Ours, P.E.,





dated December 14, 2018, for a discussion of this evaluation and the reasons for this conclusion.

The Title V permit application for the Corvias Campus Living – HU LLC listed three (3) non-NSPS diesel fired emergency generators, and one (1) diesel fired emergency generator subject to NSPS (40 CFR 60) Subpart IIII. In addition, the facility maintains the following miscellaneous/insignificant sources:

- 1. Six small storage tanks for storage of ultra-low sulfur diesel fuel with capacities ranging from 50-275 gallons;
- 2. Four Trane Chillers (less than 600 lbs) and one air conditioning unit, using R-134a, R-11, or R-410A refrigerant;
- 3. Six natural gas-fired dryers located in Cook Hall and eight natural gas-fired dryers located in Drew Hall with heat input ratings less than 5 MMBTU/hr;
- 4. Two cooling towers; and
- 5. Fifteen natural gas-fired external combustion units with heat input ratings less than 5 MMBTU/hr.

EMISSIONS SUMMARY:

The following table represents the potential to emit (PTE) from all units covered by this permitting action and under the control of Corvias Campus Living – HU LLC. It does not represent the full PTE from all units at the greater Howard University facility. These data are still being developed, but it is known that the greater facility has a PTE greater than 25 tons per year of oxides of nitrogen (NO_x) and is therefore classified as a major stationary source.

Plant-Wide Emissions Summary (tons per year)		
Pollutant	Potential Emissions	
Oxides of Sulfur (SO _x)	0.07	
Oxides of Nitrogen (NO _x)	14.09	
Particulate Matter (PM/PM10)	2.61	
Volatile Organic Compounds (VOCs)	1.30	
Carbon Monoxide (CO)	11.49	
Total Hazardous Air Pollutants (HAPs)	0.23	

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

The equipment under the control of Corvias Campus Living – HU LLC (which is, in turn, under partial control of Howard University), combined with other sources under the direct control of Howard University, has the potential to emit greater than 25 tons per year of oxides of nitrogen (NO_x). The value for this criteria pollutant exceeds the major source threshold in the District of

Columbia of 25 TPY of NO_x. Because potential emissions of NO_x exceeds 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 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 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

<u>Fact Sheet and Statement of Basis</u> Draft Title V Operating Permit No. 055 Corvias Campus Living – HU LLC

March 12, 2020

Page 4

- 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 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.)

<u>District Enforceable Only:</u>

- 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.

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

Emission Unit ID	Emission Unit Identification	Chapter 2 Permit or Approval No.	Approval Date
EG-1	Cummins Model No. NT855-G3 generator set located at Howard Plaza Towers East	7115-SC-0083	12/5/2018
EG-2	Cummins Model No. NT855-G3 generator set located at Howard Plaza Towers West	7115-SC-0084	12/5/2018
EG-3	Cummins Model No. 6CTA8.3- G generator set located at George Cook Hall	7115-SC-0085	12/5/2018
EG-4	Kubota Model No. V2203-M-BG-ET02 generator set located	7048-SC-0126	12/7/2018

Emission Unit ID	Emission Unit Identification	Chapter 2 Permit or Approval No.	Approval Date
	at Charles Drew Hall		

<u>20 DCMR Chapter 3 – Operating Permits and Acid Rain Programs:</u>

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.

<u>20 DCMR 715 – Major Source and Case-By-Case Reasonably Available Control Technology</u> (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.

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.

<u>20 DCMR 805 – Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen:</u>

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 Conditions III(a)(2)(A) and III(b)(2)(A) of the permit.

<u>40 CFR 60, Subparts K, Ka, and Kb – Standards for Storage Vessels for Petroleum Liquids or Volatile Organic Liquids:</u>

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:

The engine of one diesel emergency generator set at the facility 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) commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 2) were modified or reconstructed after July 11, 2005.

One (1) diesel CI-ICE identified below is subject to 40 CFR 60, Subpart IIII:

Emission	Stack	Emission Unit	Description
Unit ID	ID	Identification	
EG-4	SEG-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: 2020 (NSPS)

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

The engines listed below of the three (3) 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	Stack ID	Emission Unit Identification	Description
EG-1	SEG-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	SEG-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	SEG-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)

40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Engines: This subpart does not apply to this facility because this facility only includes compression

ignition (diesel) engines.

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) 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, as applicable. This situation affects the EG-4 generator set previously discussed as covered by 40 CFR 60, Subpart IIII. Only the NSPS requirements have been cited in the permit for this unit because Subpart ZZZZ does not add any additional compliance requirements.

"Existing" CI engines are also covered by this regulation. Three diesel engines associated with generator sets at the facility fall into this category as shown in the following table:

Emission Unit ID	Stack ID	Emission Unit Identification	Description
EG-1	SEG-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	SEG-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	SEG-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)

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

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

The CAM rule does not apply to the emission units at Corvias Campus Living – HU LLC that are covered by the draft Title V permit. 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 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.

COMPLIANCE HISTORY:

Howard University has been subject to enforcement actions by AQD in the past three years, but Corvias Campus Living – HU LLC has not been subject to such enforcement. The applicant noted in the Compliance Plan and Compliance Certification form that EG-1, EG-2, EG-3, and EG-4 are not presently in full compliance and listed several compliance issues related to maintenance and record keeping. The applicant proposed to perform compliance actions to bring the units into compliance.

COMMENT PERIOD:

Beginning Date: March 27, 2020 Ending Date: April 27, 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

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.

POINT OF CONTACT FOR INQUIRIES:

Thomas Olmstead Environmental Engineer

Department of Energy and Environment Air Quality Division 1200 First Street NE, 5th Floor Washington DC 20002 (202) 535-2273

REVIEWS:

Prepared by:

Thomas Olmstead

Environmental Engineer

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Approved by:

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