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. 016-R2

APPLICANT AND PERMITTEE:
L'Enfant Plaza
Potomac Creek Associates, L.L.C.
955 L'Enfant Plaza North, SW, Suite 1208
Washington DC 20024

FACILITY LOCATION:
L'Enfant Plaza SW
Washington, DC 20024

FACILITY DESCRIPTION:

Potomac Creek Associates, L.L.C. operates four boilers, two emergency generators, and two diesel fire pumps to provide heating and cooling, backup power, and emergency water pumping capacity to buildings that commercial office and retail uses at L'Enfant Plaza in the southwest quadrant of the District. The facility consists of many buildings that share the site. The Permittee is covered under Standard Industrial Classification (SIC) Code 6722.

Also part of the facility, for Title V facility aggregation purposes, is the "L'Enfant Plaza Southeast Office Building". This is under separate ownership of JBG/L'Enfant Plaza Southeast, L.L.C. However, both of these L.L.C.s are under the common control of JBG Smith. As such, while the L'Enfant Plaza Southeast Office Building is being permitted under separate cover, for purposes of evaluating the source classification, its emissions are incorporated. This building contains only one significant emission source, a 200 kWe emergency generator set powered by a 331 hp diesel-fired engine, currently permitted under source category permit approval 7048-SC-0044. It also includes several insignificant activities: 1) one 0.075 MMBTU/hr natural gas-fired space heater, 2) two cooling towers, 3) one 200 gallon capacity above ground storage tank for diesel fuel, and 4) two chillers subject to federal ozone depleting substances requirements. JBG/L'Enfant Plaza Southeast, L.L.C. is intending to submit a separate Title V application for its portion of the greater facility.

Potomac Creek Associates, L.L.C.'s operations include emission units that are capable of operating twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. All the boilers are equipped with low NOx burners. The units include:

Emission Units[†]			
Emission Unit ID	Stack ID	Emission Unit Name	Description
CU-1	001	East Building Boiler	25.106 MMBTU/hr natural gas-fired boiler, Kewanee Model L3S-750-06; installed 1971 (non-NSPS)[‡]
CU-2	001	East Building Boiler	25.106 MMBTU/hr natural gas-fired boiler, Kewanee Model L3S-750-06; installed 1971 (non-NSPS)[‡]
CU-3	002	North Building Boiler	13.69 MMBTU/hr dual fuel-fired (natural gas and No. 2 fuel oil) boiler, Burnham, Model WB3_35; installed 1966 (non-NSPS)
CU-4	003	North Building Boiler	13.69 MMBTU/hr dual fuel-fired (natural gas and No. 2 fuel oil) boiler, Burnham Model WB3_35; installed 1966 (non-NSPS)
EG-1	004	East Building Generator	400 kWe Kohler Model 400REOZDD emergency generator set powered by a 635 hp diesel-fired Detroit Diesel Model S60 engine subject to NSPS Subpart IIII. Manufactured 2006. Previously permitted under Chapter 2 permit 6318-R2.
EG-3	005	North Building Generator	450 kWe MTU Onsite Energy Model DS450D6SRA emergency generator set powered by a 685 hp MTU Model 10V1600G70S engine subject to NSPS Subpart IIII. Manufactured 2012. Previously permitted under Chapter 2 permit 6749.
FP-1	004	East Building Fire Pump	160 hp Caterpillar model 3208 diesel-fired emergency fire pump with engine serial number 90N71271. Model year 1988; installed in 1989 (non-NSPS). Previously permitted under Chapter 2 permit 6841-R1.
FP-3	005	North Building Fire Pump	175 hp Clarke Model JU6H-UFADMG diesel fired emergency fire pump powered by John Deere engine. Model year 2018; installed in 2019. Subject to NSPS Subpart IIII. Previously permitted under source category approval number 7048-SC-0129.

In addition to the significant emission units found in the table above, the facility has the following insignificant units:

- Seven (7) cooling towers;
- One 20,000 gallon above ground tank for No. 2 fuel oil;
- Six (6) above ground storage tanks for ultra-low sulfur diesel fuel with capacities ranging from 25 gallons to 750 gallons; and
- Seven (7) small external combustion units burning natural gas only, each with a rated heat input less than 1 MMBTU/hr.

The facility also operates five chillers containing ozone depleting substances (ODS) subject to federal requirements.

EMISSIONS SUMMARY:

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

FACILITY-WIDE EMISSIONS SUMMARY [TONS PER YEAR]			
Pollutants	**Potential Emissions**		
	Potomac Creek Associates, L.L.C.	**JBG/L'Enfant Plaza Southeast, L.L.C.**	**Combined Facility Potential to Emit**
Sulfur Dioxide (SO_2)	0.33	0.17	0.50
Oxides of Nitrogen (NO_x)	23.72	0.92	24.64
Total Particulate Matter (PM Total)	10.70	1.22	11.92
Volatile Organic Compounds (VOCs)	1.66	0.01	1.67
Carbon Monoxide (CO)	27.89	0.30	28.19
Total Hazardous Air Pollutants (HAPs)	0.47	0.001	0.471

The boilers are operated with some restrictions that limit the potential to emit (PTE) of oxides of nitrogen (NO_x) to below the major source threshold of 25 tons per year. The dual-fuel boilers (CU-3 and CU-4) operate only 8 months out of the year during heating season and are, at the request of the applicant, limited to 5,840 hours of operation per year, each. Additionally, the two fire pumps are limited to 200 hours per year of operation, which is lower than the standard 500 hours per year usually used for estimating the potential to emit of similar units.

The PTE of NOx from the boilers is calculated by adding the PTE of NO_x of boilers CU-1 and CU-2 on natural gas, operating 8,760 hours per year, and the PTE of NO_x of boilers CU-3 and CU-4 operating on No. 2 fuel oil for 5,840 hours per year (except where the CO emission factor is higher using natural gas for those two boilers, and the natural gas emission factor is used).

The two fire pumps are limited to 200 hours per year of operation for the purpose of calculating PTE of NO_x. With these limits on operations, plus the contribution of the emergency generator set in the L'Enfant Plaza Southeast Office Building, the potential NO_x emissions for this facility are 24.43 tons per year which is below the major source threshold. This Title V permit, incorporating these limits on the facility's PTE, is being issued in lieu of a synthetic minor permit. The applicant may elect to apply for a synthetic minor permit for the facility at a later time.

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

The L'Enfant Plaza complex, under the common control of JBG Smith, has the PTE 24.64 tons per year (TPY) of NO_x. This value does not exceed the major source threshold in the District of Columbia of 25 TPY of NO_x. However, the facility is required to obtain a Title V Operating permit since the District does not have a synthetic minor permit program.

Under normal maximum operating conditions for PTE determination (i.e., 500 hours per year per emergency engines and 8,760 hours per year of operation on the highest emitting fuel for the boilers), the combined emissions of the generators and the boilers would have exceeded the major source threshold. In order to stay below the threshold, the facility opted for operating hour restrictions to achieve minor source status. The operating restrictions include limiting the boiler CU-3 and CU-4 operations to 5,840 hours per boiler per year and limiting fire pump operations to 200 hours per year. The applicant may elect to apply for a synthetic minor permit at a later date, pursuant to a new regulation recently promulgated by the District, but in the interest of timeliness, has elected to obtain a Title V permit to memorialize the PTE limitations.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the draft 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 those 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, recordkeeping, and reporting requirements authorized under 20 DCMR 500.1.

The draft Title V operating 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 draft Title V operating 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 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 603 - Particulate Process Emissions
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 (CI-ICE)
40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (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 - 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, the generator engines and the fire pump engines are subject to Chapter 2 permitting requirements. Four of the boilers have heat input ratings greater than 5 MMBTU/hr, and are therefore subject to Chapter 2 permitting requirements.

Of particular note, AQD is adding a limit on hours of operation of boilers CU-3 and CU-4. The boilers typically only operate 8 month out the year only during heating season, and as such, the applicant has requested a limit of 5,840 hours per year for those two units. Two of the boilers (CU-1 and CU-2) cannot operate on No. 2 fuel oil any longer, as they were disconnected from that fuel source and the tank was removed. The two fire pumps are limited to 200 hours operation each per year. This limit was not previously included in Chapter 2 permits for the equipment, but is being included in the Title V permit directly via Chapter 2 permit authority.

The source has current Chapter 2 permits for the emergency generators and fire pumps as listed in the equipment list table in the "Facility Description" section of this memorandum. The relevant requirements of these permits have been incorporated into the Title V permit. Note that, in some instances, requirements have been updated as they are transferred into the Title V permit. Such updates are being made pursuant to Chapter 2 permit authority.

20 DCMR Chapter 3 – Operating Permits and Acid Rain Programs:
Please see the discussion above in the section entitled "Basis of 20 DCMR Chapter 3 (Title V) Applicability" for a discussion of the applicability of Chapter 3 to the facility. The acid rain portions of this chapter are not applicable to the facility.

20 DCMR Chapter 5 – Source Monitoring and Testing:
Throughout the permit, appropriate monitoring, testing, and record keeping requirements have been established to ensure that all emission and operational limits in the permit are enforceable as a practical matter. These requirements are established under the authority of Chapter 5.

20 DCMR 801: Sulfur Content of Fuel Oils:
The regulation regulates the sulfur content of commercial fuel oil classified as No. 2 fuel oil. After July 1, 2018, for commercial fuel oil classified as No. 2 fuel oil, 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 the U.S. Environmental Protection Agency (EPA) temporarily suspends or increases the limit, as allowed in 20 DCMR 801). This regulation also has a 1% sulfur requirement for all other fuel oils to be burned in the District, however all equipment covered by this permit have more stringent limits than this as a result of other regulation applicability, so this limit is streamlined with those other limits wherever fuel sulfur content is addressed for specific equipment.

20 DCMR 805: Reasonably Available Control Technology for Major Stationary Sources of Oxides of Nitrogen:
Because the limits on operations contained in the permit limit NO_x emissions below the major source threshold for the facility, this regulation is not applicable.

40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines:
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 construction after July 11, 2005 and were manufactured after April 1, 2006, or 3) that were modified or reconstructed after July 11, 2005. This subpart applies to both of the diesel emergency generators (EG-1 and EG-3) and one of the fire pumps (FP-3). The requirements of this subpart have been incorporated into Condition III(c) of the permit, which covers these three units.

40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units:
This regulation is not applicable to the units at this facility due to the age of the boilers. NSPS Subpart Dc applies to small industrial, commercial, and industrial boilers (steam generating units) that commenced construction or were modified after June 9, 1989 and have a rated heat input capacity greater than 10 MMBtu/hr and less than 100 MMBtu/hr. The boilers at this facility were installed in 1966 and 1977 and no major modifications have been made.

40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
This subpart applies to volatile organic liquid (VOL) storage tanks constructed, reconstructed, or modified after July 23, 1984, with a capacity equal to or greater than 75 m^3 (about 19, 813 gallons). However, tanks greater than 151 m^3 which store liquid with a true vapor pressure less than 3.5 kPa and tanks greater than 75 m^3 but less than 151 m^3 that store liquid with a true vapor pressure less than 15 kPa, are exempted under 40 CFR 60.110b(b).

All of the tanks at the facility contain No. 2 fuel oil or diesel fuel, which, according to Table 7.1-2 of AP-42, has a true vapor pressure at 100°F of 0.022 psi (0.15 kPa). As such, none of the storage tanks are subject to Subpart Kb.

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 HAPs such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc, through surrogate compounds such as formaldehyde, Carbon Monoxide (CO) and/or Volatile Organic Compounds (VOC).

A facility that emits or has the potential to emit 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs, is consider 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 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 rather an area source. Therefore the area source NESHAP for Reciprocating Internal Combustion Engines (RICE) is applicable to this facility.

Subpart ZZZZ is applicable to new or reconstructed SI and CI engines at this facility. New/Reconstructed stationary engines are those manufactured or reconstructed after June 12, 2006. However, for new engines, Subpart ZZZZ refers to the New Source Performance Standard (NSPS), 40 CFR Part 60 Subpart IIII as the only set of requirements needed to ensure compliance with Subpart ZZZZ. There are three new engines that fall into this category at the facility, specifically EG-1, EG-3 and FP-3. The permit has been drafted to include the applicable requirements found in NSPS Subpart IIII for these units, thereby also including the applicable requirement of NESHAP Subpart ZZZZ.

This regulation also covers existing RICE. The engine powering fire pump FP-1 is subject as existing RICE therefore the requirements of this standard have been included for that unit in Condition III(d) of the permit.

40 CFR 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources
This regulation does not apply to boilers CU-1 and CU-2 as they burn natural gas exclusively. Boilers CU-3 and CU-4 could be covered by the rule, but the applicant has indicated that the units only operate on No. 2 fuel oil during periods of gas supply emergencies, during periods of gas curtailment, and for up to 48 hours per calendar year per boiler during periodic testing. This qualifies the equipment for classification as "gas-fired boilers" as defined in 40 CFR 63.11237, and as exempted from rule applicability in 40 CFR 63.11195(e). The facility must continue to only operate boilers CU-3 and CU-4 on No. 2 fuel oil in these circumstances to remain exempt from this rule, so these conditions have been incorporated into Condition III(b)(2)(C) of the permit.

All of the insignificant boilers operate only on natural gas, and are also exempt.

Based on this evaluation, none of the boilers at the facility are covered by this regulation, and its requirements are not incorporated in the permit.

Compliance Assurance Monitoring (CAM) [40 CFR 64]:
A CAM Plan does not apply to the emission units at the facility. The emissions units covered in the permit include primarily boilers and emergency generators. These combustion units do not use control devices other than the inherent design of the units. Emissions from these units are products of the combustion of fuel burned and are controlled by proper operation, good combustion, and maintenance practices. As such, pursuant to 40 CFR 64.2(a), this regulation is not applicable to the equipment covered by this permit.

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 Prevention of Significant Deterioration (PSD) applicability. 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 EPA's Enforcement and Compliance History Online (ECHO) database, the applicant has been subject to no enforcement actions by AQD or EPA in the past three years. However, the facility has been subject to a consent decree filed in DC Superior Court in January 2012. This consent decree was filed as a result of the facility's failure to submit a timely Title V renewal application. The consent decree required payment of a fine and compliance with the facility's previous Title V permit (which had expired) until such time as a new permit was issued to replace it. Stipulated penalties were established for violations of the old permit. This current permitting action will replace that expired permit and will resolve the final requirements of that consent decree.

COMMENT PERIOD:
Beginning Date: July 10, 2020
Ending Date: August 10, 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 Department shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing shall be announced in the D.C. Register and a daily newspaper.

POINT OF CONTACT FOR INQUIRIES:
Stephen S. Ours
Chief, Permitting Branch
Department of Energy and Environment

Air Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002
(202) 535-1747

REVIEWS:

Prepared by:

Stephen S. Ours FOR NOA

N. Olivia Achuko
Environmental Engineer

Approved by:

Stephen S. Ours

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

SSO:NOA