

GOVERNMENT OF THE DISTRICT OF COLUMBIA

Department of Energy and Environment

TECHNICAL SUPPORT MEMORANDUM

TO: File

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

FROM: Afewerki Birhane
Environmental Engineer

SUBJECT: **Permit No. 7411 to Construct and Operate a Gasoline Dispensing System with Associated 4000-Gallon Above Ground Storage Tank (AST-60) at the Howard University Service Center, Located at 2244 10th Street NW, Washington DC**

DATE: June 4, 2025

BACKGROUND INFORMATION

Howard University submitted an application for a permit to construct and operate a new gasoline dispensing system and associated 4000-gallon gasoline storage tank to be located at the Howard University Service Center (HUSC) of The Howard University. The HUSC is located at 2244 10th Street NW, Washington DC.

Characteristics of the proposed Gasoline Dispensing Facility (GDF) will include a Stage I vapor recovery system (VRS) that will be composed of California Air Resources Board (CARB) certified enhanced vapor recovery (EVR) components, which will control gasoline vapors during product deliveries from the fuel delivery truck to the AST. In addition, the proposed AST will have a submerged fill pipe. The single nozzle gasoline dispenser will utilize an automatic shut-off nozzle with a hose swivel and breakaway on the fuel dispensing hose. As allowed by DOEE since January 1, 2022, the installation of a Stage II vapor recovery system is not necessary since the majority of gasoline vehicles are now equipped with onboard refueling vapor recovery systems (ORVR). An electronic tank monitoring and leak detection system by OMNTEC Mfg. Inc. will be installed, and a FuelMaster® Fuel Management System will electronically record the fuel transactions. The application was received by the Air Quality Division (AQD) on March 26, 2025. The associated application fee was paid on April 11, 2025.

The permit action will be published in the DC Register on June 13, 2025. Public comments for the permit action will be solicited through July 14, 2025.

The Howard University has not requested that any of the materials submitted with this application be held confidential.

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TECHNICAL INFORMATION

The equipment at this site will include a 4000-gallon gasoline above ground storage tank (AST). The AST will utilize a Stage I vapor recovery system (VRS) that will be composed of California Air Resources Board (CARB)-certified enhanced vapor recovery (EVR) components, which will control gasoline vapors during product deliveries from the fuel delivery truck to the AST. In addition, the proposed AST will be a ConVault® tank (Model No. CVTDW-04000-CT-K) that will have a submerged fill pipe. The single nozzle gasoline dispenser will utilize an automatic shut-off nozzle with a hose swivel and breakaway on the fuel dispensing hose.

The facility has committed to limiting their maximum monthly throughput to less than 10,000 gallons. The average annual throughput is estimated to be 27,000 gallons, and the estimated figure is based on the historic record of the old tank, a 6,000-gallon tank being removed from service. Monitoring, testing, record keeping, and reporting requirements have been included in the permit to ensure that compliance status can be determined.

The supporting documents and calculated emissions estimates submitted to AQD in the application indicate that the maximum volatile organic compounds (VOCs) emissions expected from the equipment are 0.80 tons per year. Similarly, maximum total hazardous air pollutant (HAP) emissions are expected to be 0.04 tons per year.

REGULATORY REVIEW

20 DCMR Chapter 2, Section 200: General Permit Requirements:

A gasoline dispenser and associated storage tank are potential air pollution sources due to the emissions from standing storage losses, the losses due to deliveries made into the storage tank, and the losses due to dispensing of gasoline. The emissions contain volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) which are regulated by the District of Columbia. Thus, a Chapter 2 permit is required.

20 DCMR Chapter 5, Section 500: Records and Reports

The Permittee must maintain records relevant to the operations and maintenance of the covered equipment pursuant to 20 DCMR 500.1. Records must be maintained for three years pursuant to 20 DCMR 500.8. However, a five-year retention requirement has been included in Condition V of the permit as the 20 DCMR 500.8 three-year requirement has been streamlined with the five-year requirement in 40 CFR 63.10(b)(1). Condition V(e) specifically references 20 DCMR 500.1 with respect to maintaining monthly gasoline throughput data. Condition V(j) also references 20 DCMR 500.1 with respect to reporting of test results to the Department.

20 DCMR Chapter 6, Section 606: Visible Emissions

The visible emissions limitations of 20 DCMR 606 are applicable to this facility. Proper operation of the system would preclude any visible emissions from being emitted into the

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outdoor atmosphere from construction, refueling, and other operational activities at the facility. AQD requires that all equipment be operated properly in order to be protective of public health and the environment per 20 DCMR 201. As such, Condition II(a) reflects a requirement that no emissions be visible and does not allow for exceptions to this standard as found in 20 DCMR 606.

20 DCMR 700: Miscellaneous Volatile Organic Compounds (VOCs)

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.

20 DCMR 704 – Stage I Vapor Recovery:

20 DCMR 704 is the District's primary regulation for controlling air emissions from the transfer of volatile organic compounds or gasoline from any delivery vessel to a storage container (Stage I Vapor Recovery).

In particular, the gasoline dispensing system includes one 4,000 gallon above ground tank for gasoline storage. 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. Equipment specifications are included in Conditions III(a) through (d). Proper operation procedures are specified in Condition III(e).

One of the key requirements of this regulation are that only delivery vessels (delivery trucks) that have passed a leak test in the prior year can be used to fill the storage tank. This requirement is specified in Condition III(f), pursuant to 20 DCMR 704.4(f). The Permittee will be responsible for ensuring that only certified trucks are used pursuant to 20 DCMR 704.4(f) and Condition IV(b) of the permit. Records of these truck inspections must be maintained pursuant to Condition V(d).

20 DCMR 705 – Stage II Vapor Recovery:

20 DCMR 705 is the District's primary regulation for controlling air emissions from the transfer of gasoline from any stationary storage tank to a vehicle fuel tank. Starting January 1, 2022, an owner or operator may construct a new gasoline dispensing facility without a Stage II vapor recovery system in the District of Columbia. The applicant has confirmed that they do not intend to install a Stage II vapor recovery system, therefore much of this section is not applicable.

However, portions of this section apply to any gasoline dispensing facility, regardless of whether a Stage II vapor recovery system is installed. As a result, Conditions III(j) through (l) incorporate the requirements of 20 DCMR 705.9 through 705.11. These conditions require transfer of gasoline to a vehicular fuel tank only through a nozzle equipped with an automatic shut-off when the fuel tank is full or nearly full, a requirement that operators not transfer additional gasoline

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after the shut-off has been triggered, and a requirement to properly maintain and operate the equipment.

Additionally, Condition IV(d) incorporates the testing requirements applicable to gasoline dispensing facilities that do not have Stage II equipment installed, as specified in 20 DCMR 705.15. Condition V(j) requires reporting of the test results, pursuant to 20 DCMR 705.14. Condition V(l) incorporates the requirements of 20 DCMR 705.16, which specifies the actions to be taken if one of the aforementioned tests are failed. The reporting requirements of the regulation, found in 20 DCMR 705.17 are incorporated into Condition V(m) of the permit.

20 DCMR Chapter 9, Section 903: Odorous or Other Nuisance Air Pollutants

“An emission into the atmosphere of odorous or other air pollutants from any source in any quantity and of any characteristic, and duration which is, or is likely to be injurious to the public health or welfare, or which interferes with the reasonable enjoyment of life or property is prohibited [20 DCMR 903.1]” is applicable to all sources. This requirement is contained in Condition II(b) of the permit. The affirmative defensive provisions of 20 DCMR 903.13(b) have also been incorporated into this condition. The Odor Control Plan (OCP) requirements of this regulation do not apply at this time, and are therefore not included in the draft permit.

Other Regulations:

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 located at an area source of Hazardous Air Pollutants (HAP) as defined in 40 CFR 63.2. The applicant has asserted that this facility will have a maximum throughput of less than 10,000 gallons per month. As such, pursuant to 40 CFR 63.11111(b) and 40 CFR 63.11116, the requirements applicable under this rule include the basic housekeeping requirements found in 40 CFR 63.11116(a), the record keeping requirements of 40 CFR 63.11116(b), and the portable gasoline container requirements of 40 CFR 63.11116(d). These requirements have been incorporated into Conditions III(h) and (i) and V(e). The notification requirements of 40 CFR 63, Subpart A do not apply, pursuant to 40 CFR 63.11116(b). Additionally, to ensure that throughput remains below 10,000 gallons each month, as asserted by the applicant, Condition III(g) so limits operations. In addition to these requirements that are throughput dependent, the general duty to properly operate and maintain the equipment, pursuant to 40 CFR 63.11115(a) is included in Condition II(c) of the permit. Applicable record keeping and reporting requirements are included in Conditions V(f) through (h).

RECOMMENDATIONS

Based on AQD’s evaluation of the application and review of applicable regulations, the construction and operation of the gasoline storage tank and gasoline dispensing station, as

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proposed in the application, and the draft operating permit as written, are consistent with all applicable federal and District air pollution control laws and regulations.

The draft permit action will be published in the D.C. Register and on DOEE's website on June 13, 2025. Public comments for the permit action will be solicited from June 13, 2025 through July 14, 2025. Additionally, during that time, any person may request a public hearing on this subject. A public hearing will not be held unless requested. If public comments are received, they will be reviewed and addressed before any final action is taken on the permit application package. If no adverse comments are received, I recommend that permit No. 7411 be issued in accordance with 20 DCMR 200 promptly following the end of the public comment period.

SSO/AB