



**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: John C. Nwoke   
Environmental Engineer

SUBJECT: **Potomac Electric & Power Company  
Permit No. 7192 to Construct and Operate a New Fleet Fueling System at  
Benning Service Center, 3400 Benning Road, NE Washington, DC**

DATE: February 5, 2018

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**BACKGROUND INFORMATION**

A permit application to construct and operate a new fleet fueling system at Potomac Electric & Power Company (PEPCO) Benning Service Center, located at 3400 Benning Road NE, Washington DC was received by the Air Quality Division (AQD) on November 30, 2017.

The application was for the support of the project to replace the fleet fueling system at the PEPCO Benning Service Center. The scope of the project includes:

1. (1) 12,000 gallon gasoline UL 2085 AST and standard appurtenances, remote dispensers with (3) dispensing nozzles, stage I vapor recovery systems, and a stage II Healy Central Vacuum (VP500 Series) vapor recovery systems.
2. (1) 12,000 gallon diesel UL 2085 AST and standard appurtenances, and remote dispensers with (4) dispensing nozzles.

The permit action will be published in the DC Register on February 16, 2018. Public comments for the permit action will be solicited through March 19, 2018.

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

**TECHNICAL INFORMATION**

The equipment at this site includes:

1. (1) 12,000 gallon gasoline UL 2085 AST and standard appurtenances, remote dispensers with (3) dispensing nozzles, stage I vapor recovery systems, and a stage II Healy Central Vacuum (VP500 Series) vapor recovery systems.

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2. (1) 12,000 gallon diesel UL 2085 AST and standard appurtenances, and remote dispensers with (4) dispensing nozzles.

Although listed, the 12,000 gallon diesel AST is not subject to 20 DCMR 704 as the Stage I regulation was not intended to cover diesel fuel due to its low volatility. Thus, no requirements were placed in the permit for the storage and handling of diesel fuel at the facility.

The supporting document and calculated emissions estimate submitted to AQD show that the volatile organic compounds (VOCs) emissions are not expected to exceed 368.31 pounds per year or 0.184 tons per year.

Note that this estimate is based on an estimated average annual throughput of 99,000 gallons and a maximum monthly throughput of 9,200 gallons. However, in a discussion with Stephen Ours of AQD on February 2, 2018, Seth Cheney of KCI Technologies, Inc. indicated that the monthly throughput estimate was based on the highest actual monthly throughput in recent years and could be exceeded. As such, the applicant does not want to be limited to less than 10,000 gallons per month throughput. The regulatory evaluation and permit language will reflect this.

## **REGULATORY REVIEW**

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

A fleet fueling system is a potential air pollution source 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 which are regulated by the District of Columbia. Thus a Chapter 2 permit is required for the gasoline part of the fleet fueling system.

### **20 DCMR Chapter 5, Section 502: Sampling, Tests, and Measurements**

The sampling, tests, and measurements provisions of 20 DCMR 502 are applicable to this facility. The facility is required to conduct certain Stage II vapor recovery testing and Condition III(c)(2) was included in the permit to satisfy the requirements of this section.

### **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 fleet fueling system would preclude any visible emissions from being emitted into the 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, Conditions II(a)(1) and III(a)(1) reflect a requirement that no emissions be visible and do not allow for exceptions to this standard as found in 20 DCMR 606.

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### **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 fleet fueling system is subject to 20 DCMR 704 and 20 DCMR 705 because of the size of the gasoline storage tank and also because there are three gasoline dispensing nozzles involved in the project.

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 704 – Stage I Vapor Recovery:**

The fleet fueling system includes one 12,000 gallon gasoline above ground 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 project will involve the use of three (3) gasoline dispensing nozzles, and may dispense less than ten thousand (10,000) gallons of gasoline per month. But 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. This section is applicable.

The average annual throughput from the refueling island is estimated at 99,000 gallons. The maximum monthly throughput is estimated at 9,200 gallons. However, in a discussion with Stephen Ours of AQD on February 2, 2018, Seth Cheney of KCI Technologies, Inc. indicated that the monthly throughput estimate was based on the highest actual throughput in recent years and could be exceeded. As such, the applicant does not want to be limited to less than 10,000 gallons per month throughput. The permit language will reflect this.

This technical support memorandum need not cover the details of the regulatory requirements in the permit since these requirements were merely taken verbatim from 20 DCMR 704 and 20 DCMR 705. However, monitoring, testing, record keeping, and reporting requirements have been included in the permit to ensure that compliance status can be determined.

#### **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

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prohibited [20 DCMR 903.1]" is applicable to all sources. This requirement is contained in Conditions II(a)(2) and III(a)(2) of the permit. Many of the other conditions of the permit, especially many of those brought into the permit pursuant to 20 DCMR 704 and 20 DCMR 705 are intended, at least in part, to reduce detectable odors.

#### **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. This subpart is applicable to this source. This facility is an area source of HAP and may consistently have a gasoline dispensing station with monthly throughput of under 10,000 gallons of gasoline. However, as noted above, the facility does not want to be limited below this level. As such, this subpart is applied as if the throughput were above 10,000 gallons per month.

To address the requirements of this regulation, a streamlined component has been added to Condition II(b)(2) covering the gasoline storage tank. Also Condition II(d)(4) has been added to address the need for recording keeping. Condition III(b)(9) has been added to address the requirements of 40 CFR 63.11117(a). The notification requirements of this subpart are found in Condition IV of the permit.

#### **RECOMENDATIONS**

The permit action will be published in the DC Register on February 16, 2018. Public comments for the permit action will be solicited through March 19, 2018. AQD will resolve any comments received before taking any final action on the permit. If no adverse comments are received, I recommend that permit No. 7192 be issued in accordance with 20 DCMR 200.2 promptly upon the completion of the public review period.

SSO:JCN

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