

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
Department of Energy and Environment

**CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM**

TO: File

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

FROM: Thomas Olmstead *TO*  
Environmental Engineer

SUBJECT: **National Gallery of Art Permit Nos. 7241 thru 7243 to Operate Three (3) Non-Auto Body Paint Spray Booths**

DATE: November 19, 2019

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**BACKGROUND INFORMATION**

A permit application package to operate three (3) Non-Auto Body Paint Spray Booths at 4<sup>th</sup> Street and Constitution Avenue NW, was received by the Air Quality Division (“AQD”) of the Department of Energy and Environment (“DOEE” or “the Department”) on January 5, 2018. The applicant is the National Gallery of Art.

AQD received additional information from the applicant on July 30, 2018. Information was further supplemented on June 28, 2019 after DOEE sent a Supplementary Information Request on May 7, 2019, as well as an Administrative Order on June 7, 2019.

The applicant has not requested that any of the information submitted to the Department be held confidential pursuant to 20 DCMR 106.

**TECHNICAL INFORMATION**

The paint booths to be permitted are as follows:

| Location   | Description  | Permit Number |
|--|--|---------------|
| National Gallery of Art – West Building, Room CLB-37 | Global Finishing Solutions Model IDBG-080806-NF-S Industrial Open Face Booth | 7241          |
| National Gallery of Art – West Building, Room G-158A | Paasche Airbrush Co. Model FABF Surface Mounted Booth                        | 7242          |
| National Gallery of Art – West Building, Room G-115  | Grapek Custom Industrial Booth Model 1-10104                                 | 7243          |

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Based on the emission calculations provided by the facility, these paint booths have the total potential to emit a combined total of 0.206 TPY of VOC and 0.124 TPY of hazardous air pollutants (HAP).

### **REGULATORY REVIEW**

In developing this permit, the following regulations were evaluated for applicability.

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

Pursuant to 20 DCMR 200.1 and 200.2, because the equipment is a stationary source that has the potential to emit air pollutants, a permit from the Department must be obtained to install and operate the equipment.

#### 20 DCMR Chapter 2, Section 204: Permit Requirements for Sources Affecting Non-Attainment Areas

Because the facility is not significantly increasing emissions as a result of the paint booths (the potential to emit VOCs of 0.206 tons per year (TPY) are well below the 25 TPY value meeting the definition of “significant”), the requirements of this section are not applicable.

#### 20 DCMR Chapter 2, Section 205: New Source Performance Standards

There are no NSPS subparts applicable to the paint booths.

#### 20 DCMR Chapter 2, Section 209: Permit Requirements for Non-Major Stationary Sources (Minor New Source Review)

The potential emissions of VOCs (0.206 TPY) are well below the 5 TPY threshold for applicability of this regulation. Similarly, the potential emissions of all HAPs, combined (0.124 TPY) are well below the threshold for applicability of this regulation. Note that these values are for all three pieces of equipment in aggregate, whereas the rule applies to each unit individually, not on a per project basis, so each unit is substantially further below the thresholds than indicated above. As such, the requirements of this regulation are not applicable.

#### 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 equipment would preclude any visible emissions from being emitted into the outdoor atmosphere from the operation of the paint/spray booths and other equipment at the facility. This more stringent requirement (required by 20 DCMR 201) is contained in Condition II(c).

#### 20 DCMR 700 – Miscellaneous Volatile Organic Compounds (VOCs):

The requirements of 20 DCMR 700 were included in the permit. Because the facility will not be performing activities regulated by other sections of Chapter 7, such as mobile equipment repair and refinishing, most activities occurring in these units will be regulated under this section.

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Many of the monitoring and record keeping requirements in the permit are designed to document compliance with this section.

### 20 DCMR 714 – Control Techniques Guidelines (CTGs):

20 DCMR 714 is not applicable to any of the paint booths since the source does not operate any of the source categories (Miscellaneous Metal Product and Plastic Parts Surface Coatings, Large Appliance Coatings, and Metal Furniture Coatings) specified in 20 DCMR 714.

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

20 DCMR 715 is not applicable to any of the paint booths since the source does not have theoretical potential plant-wide emissions greater than or equal to twenty-five tons per year (25 tpy).

### 20 DCMR 770 – Miscellaneous Industrial Solvent Cleaning Operations:

Pursuant to 20 DCMR 770.9(h), products used to clean resin, coating, ink, and adhesive mixing, molding, and application equipment, are not subject to 20 DCMR 770. Therefore, 20 DCMR 770 is not applicable to any of the paint booths.

### 20 DCMR 771 – Miscellaneous Cleaning and VOC Materials Handling Standards:

20 DCMR 771 is not applicable to the paint booths because the paint booths do not apply coatings, inks, or adhesives to flexible packaging nor are the units subject to 20 DCMR 770 as discussed above. Therefore, 20 DCMR 771 is not applicable to these units.

### 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. It can be found in Condition II(b) of the permit.

### 40 CFR 60, Subpart EE – New Source Performance Standard for Surface Coating of Metal Furniture:

This subpart does not apply to these units because the source uses less than 3,842 liters of coating (as applied) per year (see 40 CFR 60.310(c)) and keeps purchase or inventory records or other data necessary to substantiate annual coating usage shall be exempt from all other provisions of this subpart. See Condition III(j) of the permit for this limitation. These records shall be maintained at the source for a period of at least 2 years per the regulation. The permit language has been updated to include a requirement to not exceed this usage level as well as to keep appropriate records to ensure compliance with that requirement.

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### 40 CFR 63, Subpart HHHHHH – National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources:

This subpart applies to this facility because the paint booths perform paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), Chemical Abstract Service number 75092, in paint removal processes. The paint booths are used primarily for paint restorations. National Gallery of Art has indicated that they use MeCl with a fine brush or cotton swab in a small jar to remove old restoration paintings. The requirements of 40 CFR 63, Subpart HHHHHH have been included throughout the permit.

It should be noted that, while the regulation establishes certain procedures for a facility to increase MeCl use to greater than or equal to one ton per year, because the facility has indicated that the overall potential to emit of the facility is far below this level, the permit establishes a limit in Condition III(k) that the Permittee must use less one ton per calendar year. It further specifies that if the Permittee wishes to exceed that level, they must obtain an amendment to the permit to allow for such activities. Accordingly, the procedures envisioned in 40 CFR 63, Subpart HHHHHH for use of MeCl greater than one ton per year are not incorporated into the permit.

### 40 CFR 64 – Compliance Assurance Monitoring (CAM)

This regulation is not applicable to this equipment pursuant to 40 CFR 64.2. In order for 40 CFR 64 to be applicable, the unit must be subject to an emission limitation or standard, use a control device to achieve compliance with it, and pre-control device emissions from the unit must exceed the major source threshold for the controlled pollutant. In this case, no control device is used to achieve compliance. Therefore, 40 CFR 64 is not applicable.

## **RECOMMENDATIONS**

The applications to operate the paint booths and the attached operating permits comply with all applicable federal and District air pollution control laws and regulations.

The applications and draft permits will be posted for public review in the D.C. Register and on the DOEE website on November 29, 2019 and will be available for public comment through December 30, 2019. If no public comments are received, it is recommended that permit Nos. 7241 thru 7243 be issued. If adverse comments are submitted or a hearing is requested, AQD will consider all comments before determining whether it is appropriate to issue the permit as drafted.

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