

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
Department of Energy and Environment

**TECHNICAL SUPPORT MEMORANDUM**

TO: File

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

FROM: Abraham T. Hagos *ATH*  
Environmental Engineer

**SUBJECT: Smithsonian Institution  
Permit #7069 to Construct and Operate a Non-Auto Body Paint Spray Booth  
at the National Museum of African American History and Culture**

DATE: March 31, 2016

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**BACKGROUND INFORMATION**

A permit application to construct and operate a non-auto body paint spray booth at the National Museum of African American History and Culture was received by the Air Quality Division (AQD) on December 21, 2015. A revised submittal was received February 3, 2016. The applicant is the Smithsonian Institution. The paint booth will be located at the National Museum of the African American History and Culture, located at 1400 Constitution Avenue NW.

The permit action is scheduled to be published in the DC Register on April 8, 2016. Public comments for the permit action will be solicited through May 9, 2016.

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

**TECHNICAL INFORMATION**

The equipment to be covered by this permit is a COL-MET Model EIB-12-08-07-00 enclosed industrial booth. The activities at this location include water based painting of museum exhibit millwork and plastic-laminate millwork paint spraying application using High Volume Low Pressure (HVL) spray guns, and limited use of manual application of paints (i.e., brush painting). The entire paint booth is equipped with a fan exhaust system and no painting is performed without using the exhaust fan. The applicant has also indicated that the filters to be installed on the paint booth will control >98% of overspray.

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### **REGULATORY REVIEW**

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

A paint spray paint booth is a potential air pollution source because paint contains volatile organic compounds and particulate matter. Thus a Chapter 2 permit is required.

#### **Chapter 6: Particulates:**

The visible emissions limitations of 20 DCMR 606 are applicable to this facility. Proper operation of the equipment and maintenance of paint booth filters would preclude any visible emissions, even during startup or shutdown, so Condition II(c) requires that no visible emissions be emitted.

#### **Chapter 7: Volatile Organic Compounds and Hazardous Air Pollutants**

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 this unit will be regulated under this section.

20 DCMR 708 could be applicable to this application, but since revisions of Chapter 7 took place affecting this section and due to questions regarding the practical enforceability of this section as revised, AQD has decided not to include the requirements of 20 DCMR 708 in the permit.

The requirements of 20 DCMR 718 are not applicable to this paint booth as the facility is not coating mobile equipment. As such, this section has not been addressed in this permit.

Although the permit application did not specify the use of any adhesives, sealants, adhesive primers, or sealant primers, Condition III(b) was written to ensure that no activities trigger the requirements of 20 DCMR 743-749 (commonly known as the “adhesives and sealants rule”).

For all of these, appropriate record keeping requirements have been included in the permit.

#### **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 is contained in Condition II(c) of the permit.

#### **40 CFR Part 60 Subpart EE-Standard of Performance for Surface Coating of Metal Furniture:**

Except for record keeping, this subpart does not apply to the owner or operator of a metal furniture surface coating operation that uses less than 3,842 liters (1,015 gallons) of coating per year for metal furniture coating. Per 20 DCMR 60.310, purchase or inventory records of annual coating usage must be maintained at the source for a period of at least two (2) years. The permit

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language has been written to include a requirement to not exceed this usage level as well as to keep appropriate records to ensure compliance with that requirement.

**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 paint stripping and miscellaneous surface coating operations at area sources. This Subpart is not applicable to the paint booth in question because it does not perform paint stripping using MeCl, does not paint any motor vehicles or mobile equipment, and does not use coatings that contain any target HAP (specifically chromium, lead, manganese, nickel, or cadmium). The appropriate permit conditions are included in the permit to place to ensure that none of these Subpart HHHHHH triggers are reached.

**40 CFR 63 Subparts MMMM, PPPP, QQQQ, RRRR: National Emission Standards for Hazardous Air Pollutants:**

Subparts MMMM, PPPP, QQQQ, and RRRR relate to NESHAP requirements for surface coatings of miscellaneous metal parts and products, plastic parts and products, wood building products, and metal furniture, respectively. None of these subparts are applicable to this paint spray booth as the facility does not use coatings and/or other materials used in painting operations in quantities that meet or exceed the defined minimum limits necessary to trigger applicability of the said subparts.

**RECOMMENDATIONS**

The proposed project and attached permit comply with all applicable federal and District air pollution control laws and regulations.

Public comments for the permit action will be solicited from April 8 through May 9, 2016. AQD will resolve any comments received before issuing the permit, and if no comments are received, I recommend that permit #7069 be issued in accordance with 20 DCMR 200.1 and 200.2.

ATH

