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: Gaurav Bansal[1] SSO for GB
Environmental Engineer

SUBJECT: Permit #6901 to Operate a Paint Spray Booth at the Smithsonian Institution Arthur M. Sackler Gallery and Freer Gallery of Art

DATE: October 7, 2015

BACKGROUND INFORMATION

A permit application was received by the Air Quality Division (AQD) of the Department of Energy and Environment (DOEE) on May 8, 2015 to operate an existing paint spray booth at the Arthur M. Sackler Gallery and Freer Gallery of Art at 1050 Independence Avenue SW, Washington, DC. The applicant is the Smithsonian Institution.

The permit action is scheduled to be published in the DC Register on October 16, 2015. Public comments for the permit action will be solicited through November 16, 2015.

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 cross-draft JB/DB-148-3 paint booth. The activities at this location include paint spraying using High Volume Low Pressure (HVLP) spray guns as well as manual applications using rollers and paint brushes to apply paint. The majority of the work will be performed on metal, plastic, and wood products. No chemical stripping operations occur at this location. However, Condition III(a) prohibits the use of chemical strippers that contain methyl chloride (MeCl) in the event that any chemical stripping were to occur.

The applicant has indicated that they will not use coatings containing target hazardous air pollutants regulated under 40 CFR 63, Subpart HHHHHH. The applicant has also indicated that a dry filter with an arrestance efficiency of 99.99 percent will be installed to capture paint overspray.

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[1] Gaurav Bansal prepared this memorandum prior to leaving DOEE Service. Stephen Ours made final edits and completed the memorandum after Mr. Bansal's separation.

REGULATORY REVIEW

Chapter 2, Section 200: General Permit Requirements:
A paint spray paint booth is a potential air pollution source because the source is stationary and paint contains volatile organic compounds and can be released as 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 spray booth as the facility is not coating mobile equipment. As such, this section has not been addressed in this permit.

The requirements of 20 DCMR 773 through 778 are not applicable to this paint spray booth as this is a shop application. 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 regulatory sections, 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 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 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.

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 in place to ensure none of these activities are undertaken to trigger applicability of this regulation.

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 October 16, 2015 through November 16, 2015. AQD will resolve any comments received before issuing the permit. If no comments are received, I recommend that permit #6901 be issued in accordance with 20 DCMR 200.1 and 200.2.

SSO/GB