

GOVERNMENT OF THE DISTRICT OF COLUMBIA

District Department of the Environment



Air Quality Division

TECHNICAL SUPPORT MEMORANDUM

TO: File

FROM: Stephen S. Ours, P.E. *SSO*
Chief, Permitting and Enforcement

Gaurav Bansal *SSO For GB*
Environmental Engineer

SUBJECT: **Permit #6978 to Construct and Operate a Paint Spray Booth at the Smithsonian Institution National Zoological Park**

DATE: June 30, 2015

BACKGROUND INFORMATION

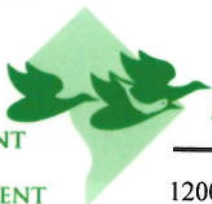
A permit application was received by the Air Quality Division (AQD) on January 20, 2015 to construct and operate a paint spray booth at the National Zoological Park at 3001 Connecticut Avenue NW, Washington, DC. The applicant is the Smithsonian Institution. The paint booth was installed in 1995 and is located at the facility listed above. The facility contact listed in the application is Mr. Joseph Cusick at (202) 633-6258. Mr. Daniel Davies signed the application as the facility's responsible official, but in a letter dated May 19, 2015, Mr. John Michael Bixler was designated as the new responsible official for the facility.

The permit action is scheduled to be published in the DC Register on July 10, 2015. Public comments for the permit action will be solicited through August 10, 2015.

The National Zoological Park 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 water wash paint booth with a water curtain to control paint overspray. The activities at this location include paint spraying using High Volume Low Pressure (HVLV) spray guns as well as manual applications using rollers, paint brushes, and aerosol spray cans to apply paint. The majority of the work will be performed on metal, plastic, and wood products. While chemical stripping operations will occur at this location, the paint strippers will not include methylene chloride.



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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 water wash booth (water curtain) is installed to capture paint overspray. This conforms to the regulations of 40 CFR 63, Subpart HHHHHH, and requirements for the proper maintenance of the water wash booth have been included in the permit.

It should be noted that the standard language related to stack outlet height was not included in the permit. This is because the stack outlet configuration is complex (see the application). It vents at ground level, into an unoccupied area, but approximately 20 feet above a different ground level where the equipment is located. In any case, it is judged that the outlet location will not result in any odor problems or high concentration exposures to fumes from the painting operation.

REGULATORY REVIEW

Chapter 2, Section 200: General Permit Requirements:

A paint spray painting operation is a potential air pollution source since 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 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 the facility is only painting architectural equipment in a shop. As such, this section has not been addressed in this permit.

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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:

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.

RECOMMENDATIONS

Based on a review by AQD, the proposed project and attached permit appear to comply with all applicable federal and District air pollution control laws and regulations.

Public comments for the permit action will be solicited from July 10 through August 10, 2015. AQD will resolve any comments received before issuing the permit. If no comments are received, I recommend that permit #6978 be issued in accordance with 20 DCMR 200.1 and 200.2.

SSO/GB

Q4651

