

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 *SSO For TO*
Environmental Engineer

SUBJECT: **Architect of the Capitol, Planning and Project Management Division – Blue Plains Building, 4700 Shepherd Parkway SW, Washington, DC
Permit No. 6507-R2 to Operate One (1) Non-Automotive Paint Spray Booth**

DATE: April 14, 2021

BACKGROUND INFORMATION

A permit application to operate one non-automotive paint spray booth at the Architect of the Capitol, Planning and Project Management Division – Blue Plains Building, located at 4700 Shepherd Parkway SW, Washington, DC, was received by the Air Quality Division (“AQD”) of the Department of Energy and Environment (“DOEE” or “the Department”) on October 7, 2020. Payment of the associated application fee was received on January 11, 2021.

The applicant has not requested that any of the information submitted to the Department be held confidential pursuant to 20 DCMR 101.

TECHNICAL INFORMATION

The paint booth to be permitted is a Carolina-Virginia model, cross-draft, custom-made booth.

Based on the emission calculations provided by the facility, this paint booth has the potential to emit 1.5 tons per year (TPY) of volatile organic compounds (VOC) and 0.05 tons per year of total hazardous air pollutants (HAPs).

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.

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

The facility is not significantly increasing emissions as a result of the paint booth as the unit is already existing. Additionally, the potential to emit VOCs of 1.5 tons per year (TPY) is well below the 25 TPY value meeting the definition of “significant”. As a result, 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 booth.

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

The potential emissions VOCs (1.5 TPY) are well below the 5 TPY threshold for applicability of this regulation. Similarly, the potential emissions of all HAPs, combined (0.05 TPY), are well below the threshold for applicability of this regulation. 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 booth and other equipment at the facility. This more stringent requirement (required by 20 DCMR 201) is contained in Condition II(c) of the permit.

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 this unit will be regulated under this section. 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 the paint booth 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 the paint booth since the source does not have theoretical potential plant-wide emissions greater than or equal to twenty-five tons per year (25 tpy).

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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 the paint booth.

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

20 DCMR 771 is not applicable to the paint booth because the paint booth does not apply coatings, inks, or adhesives to flexible packaging nor is the unit subject to 20 DCMR 770 as discussed above. Therefore, 20 DCMR 771 is not applicable to this unit.

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 the unit 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.

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

This subpart does not apply to this facility because the paint booth does not: 1) 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; 2) operate autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations; or 3) perform spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment. Therefore, 40 CFR 63, Subpart HHHHHH is not applicable to this unit. Conditions have been added to the permit to ensure that these activities to not occur in the unit in the future. See Conditions III(a), III(c), and III(f)(1) and associated monitoring and record keeping requirements.

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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 application to operate the paint booth and the attached operating permit comply with all applicable federal and District air pollution control laws and regulations.

The application and draft permit will be posted for public review in the D.C. Register and on the DOEE website on April 23, 2021 and will be available for public comment through May 24, 2021. If no public comments are received, it is recommended that permit No. 6507-R2 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.

SSO:TJO