

**Washington Metropolitan Area Transit Authority
Bladensburg Bus Maintenance Facility
Spray Paint Booth**

Odor Control Plan

Prepared Pursuant to 20 DCMR 903

October 2023

Introduction

The Washington Metropolitan Area Transit Authority (WMATA) submitted an application to construct and operate a new bus-sized spray paint booth at the Bladensburg Bus Maintenance Facility on July 17, 2023. District of Columbia Department of Energy and Environment (DOEE) rule 20 DCMR 903 titled “Odorous or Other Nuisance Air Pollutants,” effective August 4, 2023, requires painting operations subject to the requirements of 20 DCMR 718 “Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operation” Volatile Organic Compound (VOC) standards to prepare an Odor Control Plan (OCP) to address emissions into the atmosphere of odorous or other air pollutants. While WMATA does not expect that emissions from materials used within the spray paint booth will be “injurious to the public health or welfare or will interfere with the reasonable enjoyment of life and property,” this OCP has been written to impose administrative and engineering controls sufficient to reduce nuisance odors from the spray paint booth. This OCP will be executed upon commencement of painting operations within the new spray paint booth after construction.

Source Data

Name: Bladensburg Bus Maintenance Facility, Spray Paint Booth (Proposed for Construction)

Point of contact: Claire Fox, Deputy Chief, EMAC, (202) 809-5802

Mailing address: WMATA, 2401 Mill Road, Room 1004-10, Alexandria, VA 22314

Physical address: 2250 26th Street, N.E., Washington, D.C. 20018

Type of source: Metro bus maintenance facility

Hours of operation: Facility operates 24 hours per day, 7 days per week, and 52 weeks per year

Description of operations: Spray paint booth operation involving body work preparation of buses and bus parts (sanding, cleaning, etc.); application of coatings utilizing high volume low pressure (HVL) spray guns (priming, applying a color-coating); and air drying. The operation also includes use of a mix room where coatings are stored and prepared (mixed) prior to application within the spray paint booth.

Emergency contact: Rahman Robinson, Superintendent, Bladensburg Bus Maintenance Facility
Office – 202-962-5681;
Cell – 202-834-3596

Floor plan of odor-emitting activity: See attached schematics for planned paint booth and mix room.

Description of odor-emitting activity: Painting operations involving preparation of buses and bus parts (sanding, cleaning, etc.), application of coatings (priming, applying a color-coating); and air drying within a spray paint booth. The operation also includes a mix room where coatings are prepared prior to application within the booth. The cleaning solvents and coatings used may contain VOCs which may cause odorous emissions depending upon the product formulations used and rate of application.

Phases (timing, length, etc.) of odor-emitting activity: A staged sporadic process involving the preparation, drying, and coating application, which can occur any time day or night, but is typically performed during daytime hours.

Odor Mitigation Procedures and Practices

Administrative Controls

To mitigate odor at the Bladensburg spray paint booth and mix room, WMATA will comply with the requirements of 40 CFR 63, Subpart HHHHHH – “National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources”, which ensures adherence to industry best practices as incorporated into this federal emissions control standard. WMATA will also comply with 20 DCMR 718 - Control of VOCs from “Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations”. Specifically, the following procedures and practices will be conducted:

- WMATA does not/will not perform paint stripping using methylene chloride (CH₂Cl₂). Physical stripping techniques are used when possible and non-CH₂Cl₂ cleaning solvents are used when needed to remove residuals.
- WMATA will ensure that lids are kept on all cleaning solvents or coatings when they are not being used.
- WMATA will use vapor-tight, nonabsorbent, nonleaking containers that are kept closed at all times, except when filling or emptying to dispose of rags containing cleaning solvents or coatings.
- WMATA will use HVLP guns to reduce the quantity of coatings used where possible. Also, the use of aerosol products will be minimized where practical.
- All paint spray gun cleaning will be done so that an atomized mist or spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent.
- WMATA personnel will change the spray paint booth particulate filters when the manometer pressure drop reading exceeds manufacturer’s specifications. Manometers are to be read prior to initiating

painting operations. Alternatively, filters will be changed monthly or appropriate consistent frequency to ensure that the filters in use are in good condition.

- Logs will be kept for the spray paint booth providing coatings used (date, type, amount) and providing a record of when filters are changed. Monthly log checks will be completed to ensure that the coatings used are compliant with Rule 718 and to provide confirmation that manometers are checked before spray booth use and/or filters are being changed when necessary.
- WMATA will train the paint booth operators in the proper application of surface coatings to minimize emissions in accordance with the requirements of 40 CFR 63 Subpart HHHHHH. Training records will be kept including a list of all current personnel by name and job description who are required to be trained. Hands-on and classroom instruction that addresses, at a minimum, initial and refresher training in the following topics: spray gun equipment selection, set up, and operation, including measuring coating viscosity, selecting the proper fluid tip or nozzle, and achieving the proper spray pattern, air pressure and volume, and fluid delivery rate will be given. The training will include the spray technique for different types of coatings to improve transfer efficiency and minimize coating usage and overspray, including maintaining the correct spray gun distance and angle to the part, using proper banding and overlap, and reducing lead and lag spraying at the beginning and end of each stroke. Training will also include routine spray booth and filter maintenance, including filter selection and installation along with the importance of environmental compliance.

Engineering Controls

Engineering controls, other than those described below, are not necessary to effectively mitigate odors from the spray paint booth. Additionally, WMATA will rely on the Administrative Controls described above. Again, these controls are management practices prescribed by applicable regulatory standards (40 CFR 63 Subpart HHHHHH and 20 DCMR 718).

Furthermore, as required by 20 DCMR 718, WMATA will close spray paint booth openings as much as possible when coatings are applied, during the time required for drying of the coating, and while any other operation may release emissions. WMATA will also maintain a negative pressure in the spray booth that is sufficient to ensure that no emissions are exiting the booth anywhere except the exhaust stack. WMATA will also maintain in good working order and operate according to manufacturer specifications the monitoring, exhaust, and control systems within the paint spray booth to include particulate filters and manometer(s) used for measuring pressure differential across the filter bed. The filters and the manometers will be kept in good working order to detect issues maintaining negative pressure and/or drawing vapors into the exhaust system.

20 DCMR 718 also requires that emissions from the application of automotive coatings for motor vehicle and mobile equipment be exhausted through a stack that meets all the following specifications:

- Discharges at least fifteen (15) feet above grade.
- Discharges at least five (5) feet above the roof peak.
- Discharges vertically upward above the roof peak.

- Discharges at a height and exhaust velocity sufficient to avoid the exhaust being circulated adjacent to the building due to building downwash effects or drawn into nearby building intakes to ensure compliance with Rule 903; and are not equipped with anything that would impede the upward discharge of the exhaust air, such as rain caps. Other techniques may be installed to prevent snow and ice from entering the exhaust system, such as butterfly caps or stack sleeves. The design for the new Bladensburg spray paint booth meets these criteria.

Industry-specific Best Control Technologies and Best Management Practices

As stated above, WMATA must adhere to a federal control technology standard for its surface coating operations – 40 CFR 63, Subpart HHHHHH – which ensures adherence to best control technologies and industry best practices. This federal control standard was finalized by the U.S. EPA after they assessed best control technologies and management practices for the surface coating industry in accordance with requirements of the Clean Air Act Amendments of 1990 Title III. Additionally, WMATA must comply with the provisions of 20 DCMR 718 which requires adherence with similar best management practices for the control VOC emissions from the use of surface coating products. 20 DCMR 718 also requires WMATA to meet VOC regulatory content limits (as applied) for coatings, cleaning solvents, and bug and tar removers which reduces volatilization of coating constituents into the air. WMATA reviews materials to be used in spray paint booths for adherence to these limits and only provides approval to purchase if compliant.

Timeline for Odor Mitigation Practices

All mitigation practices described within this OCP will be started upon commencement of operations in the new spray paint booth.

Procedures for Receiving, Responding to and Tracking Complaints

Although WMATA does not anticipate painting operations occurring within the spray paint booth will cause any odors that would cause a nuisance complaint pursuant to 20 DCMR 903, WMATA will address any complaint in a timely manner through its Customer Relations Department. A complaint may be filed via the Customer Comment Form found on the wmata.com webpage or by calling the Customer Relations Hotline at 202-637-1328.

