



October 31, 2023

Mr. Stephen S. Ours, P.E.
Chief, Permitting Branch
Air Quality Division
Department of Energy & Environment
1200 First Street NE, 5th Floor
Washington, D.C. 20002

RE: WMATA Shepherd Parkway Bus Division
Odor Control Plan for Spray Paint Booth (Permit No. 6554-R3)

Dear Mr. Ours:

The Washington Metropolitan Area Transit Authority (WMATA) is submitting the enclosed Odor Control Plan (OCP) for an existing automotive spray paint booth at the Shepherd Parkway Bus Division. District of Columbia Department of Energy and Environment (DOEE) issued (renewal) permit No. 6554-R3 to operate this paint booth on April 19, 2023. The OCP was prepared in accordance with section 20 DCMR 903 titled "Odorous or Other Nuisance Air Pollutants."

If you have any questions, or if you require any additional information, please contact me at 202-809-5802 or cfox@wmata.com.

Sincerely,

Claire Fox
Deputy Chief, Office of Environmental Management and Compliance
Department of Safety

Enclosure

cc: Tiffany Dillow, POWER Engineers, Inc.
Dr. Mark Gibson, KCI Technologies, Inc.

**Washington
Metropolitan Area
Transit Authority**

300 7th Street, SW
Washington, DC 20024
202-962-1234

wmata.com

*A District of Columbia,
Maryland and Virginia
Transit Partnership*

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**Washington Metropolitan Area Transit Authority
Shepherd Parkway Bus Division
Spray Paint Booth**

Odor Control Plan

Prepared Pursuant to 20 DCMR 903

October 2023

Introduction

The Washington Metropolitan Area Transit Authority (WMATA) received permit No. 6554-R3 to continue to operate an automotive spray paint booth at the Shepherd Parkway Bus Division on April 19, 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 consider emissions from materials used within the spray paint booth to be “injurious to the public health or welfare or [to] interfere with the reasonable enjoyment of life and property,” this OCP was written to impose administrative and engineering controls sufficient to reduce nuisance odors from the spray paint booth.

Source Data

Name: Shepherd Parkway Bus Division, Spray Paint Booth (Existing Spray Paint Booth).

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: 2 DC Village Lane, S.W., Washington, D.C. 20032.

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 (HVLV) 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: Christopher Violette, BMNT Superintendent, Shepherd Parkway Bus Division
Office – 202-962-5698
Cell – 202-981-4934

Floor plan of odor-emitting activity: See attached schematics for paint booth floor plan.

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 Shepherd Parkway spray paint booth and mix room, WMATA complies 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 also complies with 20 DCMR 718 - Control of VOCs from “Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations.” Specifically, the following procedures and practices are employed:

- WMATA does 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 ensures that lids are kept on all cleaning solvents or coatings when they are not being used.
- WMATA uses 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 uses HVLP guns to reduce the quantity of coatings used where possible. Also, the use of aerosol products is minimized where practical.
- All paint spray gun cleaning is 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 change the spray paint booth particulate filters when the manometer pressure drop reading exceeds manufacturer’s specifications. Manometers are read prior to initiating painting operations. Alternatively, filters are changed monthly or appropriate consistent frequency to ensure that the filters in use are in good condition.

- Logs are kept for the spray paint booth, which provide a record of coatings used (date, type, amount) and dates when filters are changed. Monthly log checks are 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 trains 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 are 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 is given. The training includes 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 also includes 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 closes 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 also maintains in good working order and operates 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 are 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 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 of 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 proposed 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

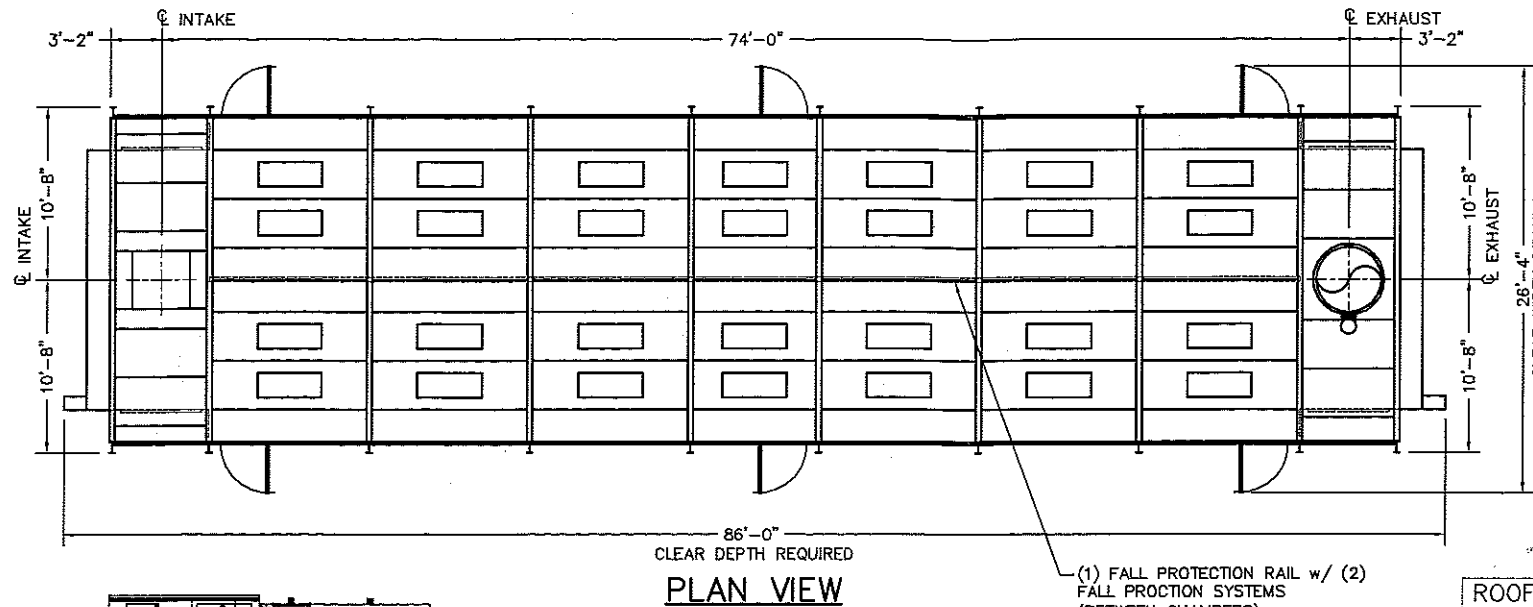
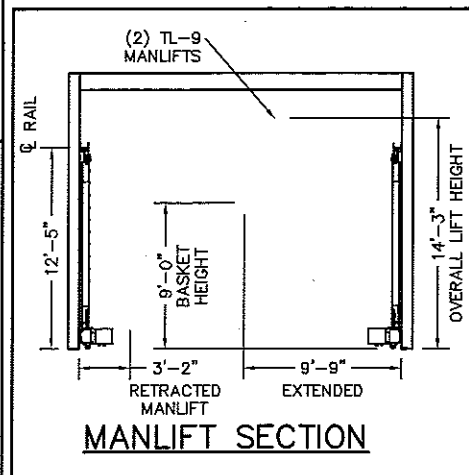
All mitigation practices described within this OCP are currently being conducted for this existing spray paint booth.

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.

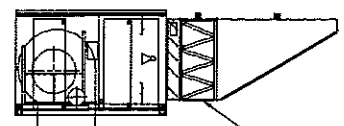
NOTES:

- BOOTH IS FABRICATED FROM 18 GAGE WHITE PRE-COAT SHEET STEEL; PRE-PUNCHED AND COMPANION FLANGED FOR BOLT TOGETHER ASSEMBLY.
- BOOTH'S SUPPORT STRUCTURE IS FABRICATED FROM W8x10 & W12x14 I-BEAM; PRE-DRILLED AND FACTORY PAINTED WHITE.
- INCLUDED, BUT NOT SHOWN:
 - NEMA-12 CONTROL PANEL 460V w/ AUTOBALANCE
 - 3/4" SOLENOID VALVE
 - DOOR LIMIT SWITCHES
- DUCT SUPPORT NOT PROVIDED BY GFS.



ELECTRICAL SYSTEM INFORMATION

OPERATING VOLTAGE: 480V 3PH 3W 60HZ
 FULL LOAD AMPS: 59
 LARGEST MOTOR HORSE POWER: 20
 TOTAL HORSE POWER: 31.5
 LIGHTING VOLTAGE: 120 VOLT
 CONTROL PANEL MAIN BREAKER SIZE: 80A



CUSTOMER APPROVAL of DRAWINGS

Signed drawing(s) is a statement that the dimensions, design and application have been reviewed and are approved for fabrication.

Approved as submitted
 Approved as noted
 Disapproved - Please resubmit

NOTE: MANUFACTURE OF EQUIPMENT WILL BE SCHEDULED AFTER RECEIPT OF APPROVED DRAWINGS.

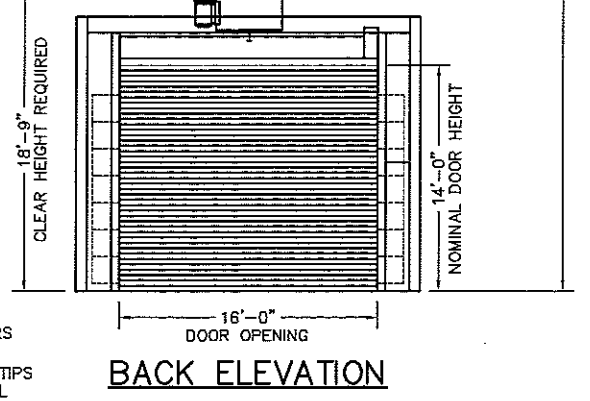
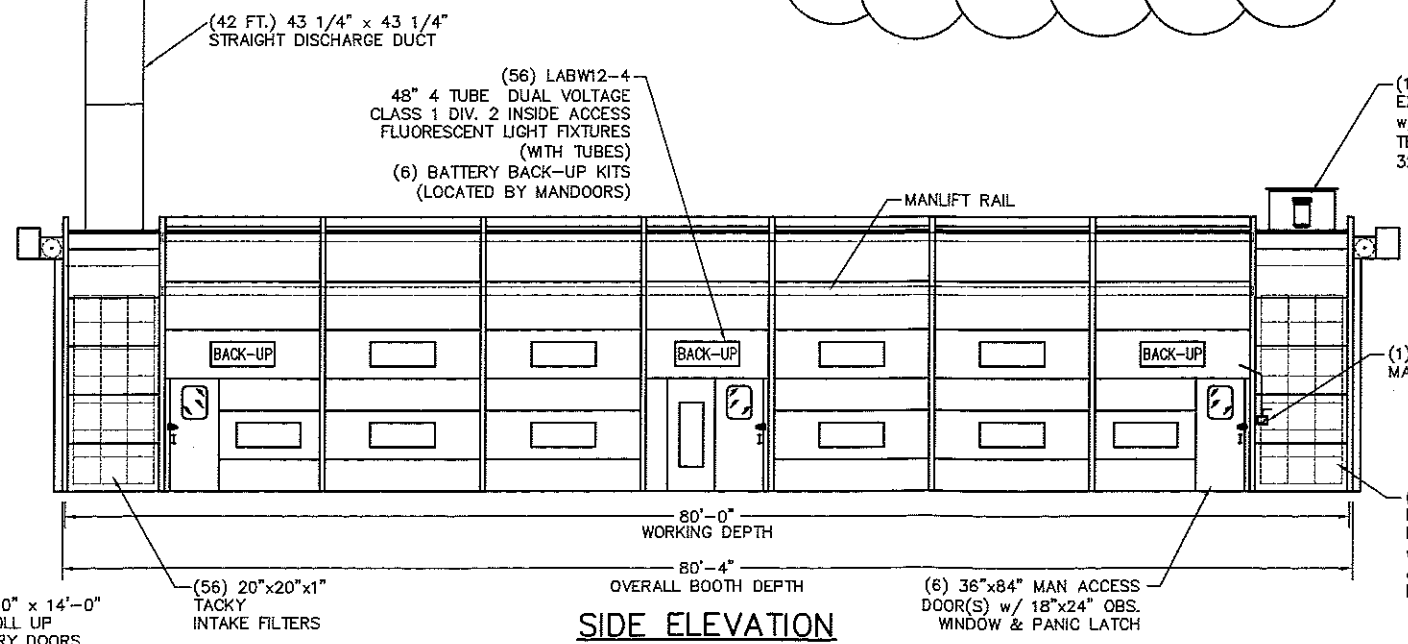
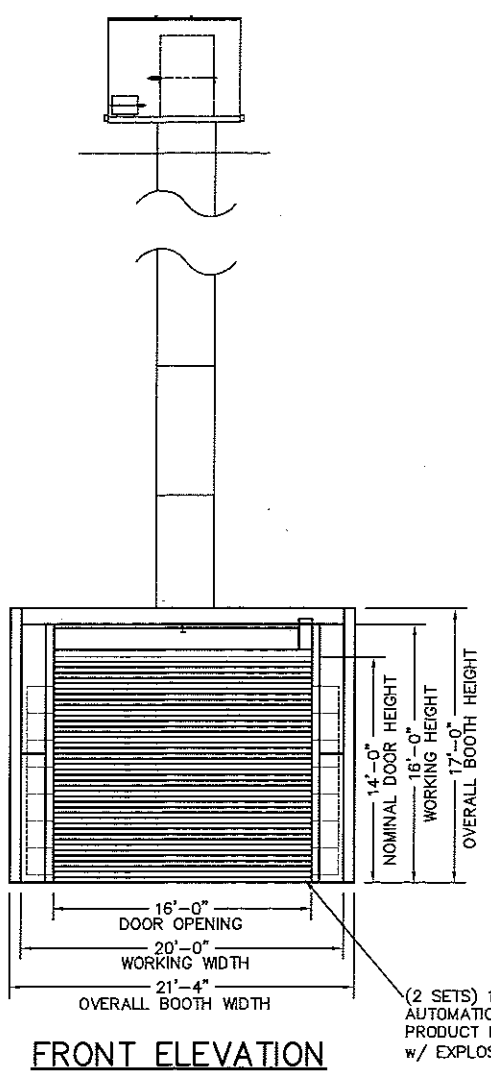
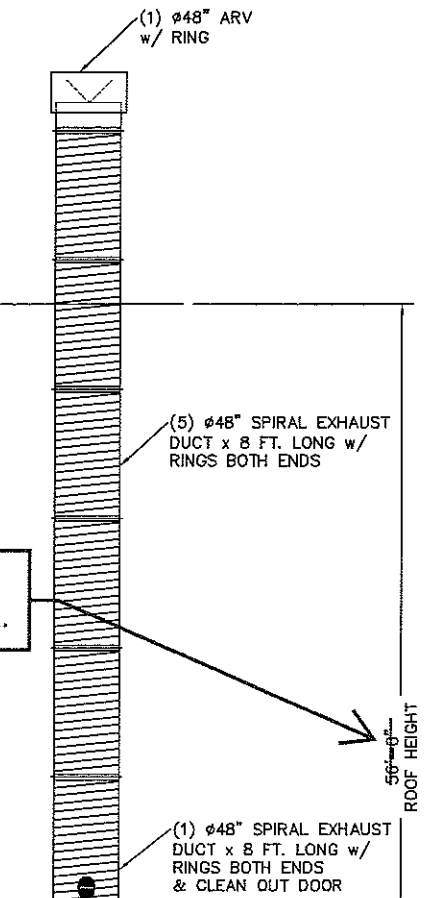
CUSTOMER MUST FURNISH THE FOLLOWING INFORMATION:

Gas Pressure: 13" W.C. Gas Volume: 3110 FT³
 Voltage: 480V Phase: 3 Phase
 Roof Pitch (if ordering duct)

NOTE: GFS WILL NOT BE RESPONSIBLE FOR BACK CHANGES RELATED TO THE ABOVE ITEMS WHEN PROVIDED WITH INCORRECT INFORMATION.

AUTHORIZED SIGNATURE: *Dal M. Dyer*

ROOF FLANGES & AMU CURB (BY CUSTOMER)



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CONCEPT REVISION	DATE	BY	DATE	BY
REV. 1	DATE	BY	REV. 5	DATE
REV. 2	DATE	BY	REV. 6	DATE
REV. 3	DATE	BY	REV. 7	DATE
REV. 4	DATE	BY	REV. 8	DATE

GLOBAL FINISHING SOLUTIONS

DESCRIPTION: CGW-2016PDT-80-S
 SCALE: 3/16" = 1'-0"
 DRAWN BY: PGM
 DATE: 2-8-11
 REVIEWED BY: DATE
 APPROVED BY: PROJECT MGR
 CUSTOMER: B & R ASSOCIATES
 for: WMATA - SOUTHEAST BUS

WORK ORDER NUMBER

DRAWING NUMBER: U12033A-01

SHEET 1 of 1