December 31, 2019

Darrell R. Willson

Administrator

National Gallery of Art

2000-B South Club Drive

Landover, MD 20785

**Subject: Permit Nos. 7241 thru 7243 to Operate Three (3) Non-Auto Body Paint Spray Booths**

Dear Mr. Willson:

Pursuant to sections 200.1 and 200.2 of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), a permit from the Department of Energy and Environment (the Department) shall be obtained before any person may operate a new stationary source in the District of Columbia. The applications of the National Gallery of Art, (“the Permittee”) for permits to operate the following three (3) Non-Auto Body Paint Spray Booths at the National Gallery of Art, located at 4th Street and Constitution Avenue NW, Washington, DC, per the submitted application received on January 5, 2018, as revised by the subsequent June 28, 2019 submittal, have been reviewed.

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| **Location** | **Description** | **Permit Number** |
| National Gallery of Art – West Building, Room CLB-37 | Global Finishing Solutions Model IDBG-080806-NF-S Industrial Open Face Booth | 7241 |
| National Gallery of Art – West Building, Room G-158A | Paasche Airbrush Co. Model FABF Surface Mounted Booth | 7242 |
| National Gallery of Art – West Building, Room G-115 | Grapek Custom Industrial Booth Model 1-10104 | 7243 |

Based on the plans and specifications as detailed in the aforementioned air permit applications, the applications are hereby approved, and operation of the paint booths is permitted, subject to the following conditions:

I. General Requirements:

a. The paint booths shall be maintained and operated in accordance with the air pollution control requirements of 20 DCMR.

b. This set of permits expires on December 30, 2024 [20 DCMR 200.4]. If continued operation after this date is desired, the owner or operator shall submit an application for renewal by September 30, 2024.

c. Operation of equipment under the authority of this set of permits shall be considered acceptance of its terms and conditions.

d. The Permittee shall allow authorized officials of the District, upon presentation of identification, to:

1. Enter upon the Permittee’s premises where a source or emission unit is located, an emissions related activity is conducted, or where records required by this permit are kept;

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor, at reasonable times, any substance or parameter for the purpose of assuring compliance with this permit or any applicable requirement.

e. This permit shall be kept on the premises and produced upon request.

f. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]

II. Emission Limits:

a. No person shall discharge into the atmosphere more than fifteen (15) pounds of volatile organic compound (VOC) emissions in any one (1) day, nor more than three pounds (3 lb.) in any one (1) hour, from any combination of articles, machines, units, equipment, or other contrivances at a facility, unless the uncontrolled VOC emissions are reduced by at least ninety percent (90%) overall capture and control efficiency. [20 DCMR 700.2]

b. 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]

c. Visible emissions shall not be emitted into the outdoor atmosphere from the paint spray booths. [20 DCMR 107 and 606]

III. Operational Limits and Standards:

a. Each paint stripping operation shall implement management practices to minimize the evaporative emissions of methylene chloride (MeCl). The management practices shall address, at a minimum, the practices in paragraphs (a)(1) through (5) of this section, as applicable, for the Permittee’s operations. [40 CFR 63.11173(a)]

1. Evaluate each application to ensure there is a need for paint stripping (e.g., evaluate whether it is possible to re-coat the piece without removing the existing coating).

2. Evaluate each application where a paint stripper containing MeCl is used to ensure that there is no alternative paint stripping technology that can be used.

3. Reduce exposure of all paint strippers containing MeCl to the air.

4. Optimize application conditions when using paint strippers containing MeCl to reduce MeCl evaporation (e.g., if the stripper must be heated, make sure that the temperature is kept as low as possible to reduce evaporation).

5. Practice proper storage and disposal of paint strippers containing MeCl (e.g., store stripper in closed, air-tight containers).

b. Adhesives, sealants, adhesive primers, or sealant primers shall not be used in the equipment unless they meet the following requirements:

1. They are contact adhesives sold or supplied by the manufacturer in containers containing a net volume of one gallon or less;

2. They are plastic cement welding adhesives (any adhesive intended by the manufacturer for use to dissolve the surface of plastic to form a bond between mating surfaces) with volatile organic compound (VOC) content not exceeding 400 g/L for ABS welding, 490 g/L for CPVC welding, 510 g/L for PVC welding, or 510 g/L for other plastic cement welding;

3. They are other adhesives, sealants, adhesive primers, or sealant primers sold or supplied by the manufacturer or supplier in containers with a net volume of sixteen (16) fluid ounces or less, or a net weight of one pound or less; or

4. The adhesive, sealant, adhesive primer, or sealant primer has received written approval from the Department for use in the equipment and complies with the requirements of 20 DCMR 743-749, as applicable.

c. Mobile equipment, as defined in 20 DCMR 799, shall not be coated in these paint booths.

d. Each exhaust stack shall be designed to ensure compliance with Condition II(b) of this set of permits.

e. The coatings applied shall primarily be by one or more of the following methods:

1. Powder coating;

2. Hand-held, non-refillable aerosol containers;

3. Non-atomizing application technology (paint brushes, rollers, hand wiping, flow coating, dip coating, touch-up markers, or marking pens);

4. Other non-atomizing application technology approved by the Department to not be covered by 40 CFR 63, Subpart HHHHHH or another regulation not addressed in this permit; or

5. High volume low pressure (HVLP) spray guns.

f. Whenever spray guns are used:

1. The coatings used shall not contain any compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd);

2. Cleaning of spray guns shall be performed by one of the following methods: [20 DCMR 201]

i. Use of an enclosed spray gun cleaning system that is kept closed when not in use;

ii. Use of an unatomized discharge of solvent into a paint waste container that is kept closed when not in use;

iii. Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use; or

iv. Use of an atomized spray into a paint waste container that is fitted with a device designed to capture atomized solvent emissions.

g. The paint spray booths shall meet the following specifications [20 DCMR 201]:

1. The unit shall be fitted with a type of filter technology that is demonstrated to achieve at least 98-percent capture of paint overspray.

2. The exhaust filters shall be replaced as specified by manufacturers’ specifications and as necessary to ensure compliance with Condition II(c) of these permits.

3. The unit shall be constructed with a full roof and must be ventilated at negative pressure so that air is drawn into the front opening any openings in the booth walls.

4. The unit shall be maintained and operated at all times in accordance with manufacturer’s recommendations.

h. The Permittee shall comply with the following housekeeping and pollution prevention measures [20 DCMR 201]:

1. Perform all painting operations that utilize a spray gun in a paint spray booth;

2. Store fresh and used coatings, solvent, and cleaning solvents in non-absorbent, non-leaking containers;

3. Close all repairing and refinishing coating containers at all times except when filling, emptying, or in active use;

4. Store cloth and paper, or other absorbent applicators, moistened with coatings, solvents, or cleaning solvents in closed, non-absorbent, non-leaking containers; and

5. Minimize spills during the handling and transfer of coatings, solvents, and cleaning solvents.

i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the spray painting equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating procedures are being used will be based on information available to the Department which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

j. The Permittee shall use less than 3,842 liters (1,015 gallons) of coatings (as applied) for coating metal furniture per calendar year at the facility (all metal furniture coating occurring at the facility, not just in these booths). [20 DCMR 201 and 40 CFR 60.310(c)]

k. The Permittee shall use less than one ton of MeCl in the paint stripping operations per calendar year. If the Permittee wishes to use more than one ton of MeCl per calendar year, the Permittee shall develop and implement a written MeCl minimization plan to minimize the use and emissions of MeCl pursuant to 40 CFR 63.11173(b) and shall submit such plan to the Department for approval as part of a permit amendment request. Such a permit amendment must be issued by the Department prior to exceeding the one ton of MeCl per year threshold. [20 DCMR 200]

IV. Monitoring and Testing Requirements:

a. The Permittee shall monitor the contents of any chemical strippers used at the facility to ensure implementation of the management practices in Condition III(a).

b. The Permittee shall track the quantity and volatile organic compound (VOC) content of all paints and coatings used at the facility, as applied, to ensure compliance with Condition II(a). If applied, unadulterated, as the coating is obtained from the manufacturer, documentation provided by the manufacturer may be used to determine the VOC content.

Whenever such information is not available from the manufacturer or whenever a paint or coating is not applied as obtained from the manufacturer, the following method shall be used to determine the VOC content:

The mass of VOC per combined volume of VOC and coating solids, less water and exempt compounds shall be calculated, in pounds per gallon, by the following equation. To convert from grams per liter to pounds per gallon (lb/gal), multiply the result (VOC content) by 8.345 x 10-3 (lb/gal/g/l):



where:

VOC = VOC content in grams per liter (g/l) of coating less water and non VOC solvents;

Wv = Mass of total volatiles, in grams;

Ww = Mass of water, in grams;

Wec = Mass of exempt compounds, in grams;

V = Volume of coating, in liters;

Vw = Volume of water, in liters; and

Vec = Volume of exempt compounds, in liters.

c. The Permittee shall maintain an awareness of the area to ensure that the odor and nuisance air pollutant requirements of Condition II(b) are met.

d. The Permittee shall monitor the emission point from the spray booths to ensure that the requirements of Condition II(c) are met.

e. The Permittee shall monitor the safety data sheets or other paint, coating, adhesive, sealant, adhesive primer, or sealant primer specification sheets to ensure compliance with Conditions III(b) and (f)(1).

f. The Permittee shall monitor the types of spray booth filters purchased and their replacement dates to ensure that all filters used meet the requirements of Conditions III(g)(1) and (2).

g. The Permittee shall monitor the maintenance and operational status of the spray booths and the activities performed in the spray booths and at the facility to ensure compliance with the requirements of Conditions III(c), (e), (f), (g), (h), and (i).

h. The Permittee shall monitor the total quantity of coatings, as applied, to metal furniture at the facility to ensure compliance with Condition III(j). As an alternative to monitoring coatings, as applied, to metal furniture specifically, the Permittee may monitor total quantities of coatings used at the facility to show that total quantities used do not exceed the limit in Condition III(j).

i. The Permittee shall monitor the total quantity of MeCl used in the paint stripping operations to ensure compliance with Condition III(k).

V. Record Keeping Requirements:

Starting at the time of permit issuance, the Permittee shall maintain the following records for not less than three years from the date of each record. For paint stripping operations, the Permittee shall maintain records for not less than five years from the date of each record. [20 DCMR 500.8 and 40 CFR 63.11178(a)]

a. The Permittee shall maintain records of the quantity, type, and MeCl content of chemical paint strippers used at the facility as well as their chemical make-up to document compliance with Condition III(a). The quantities of each coating shall be updated daily, and summed monthly with a cumulative 12-month rolling period calculated and recorded within 15 days of the end of each calendar month for the previous month and the 12-month period ending at the end of that month.

b. The Permittee shall maintain records of the quantity, type, and VOC content of all paints and refinishing coatings used at the facility, as applied. The quantities of each coating shall be updated daily, and summed monthly. Additionally one of the following options shall be implemented:

1. If, in order to comply with Condition III(j), per Condition IV(h), the Permittee monitors the quantity of coatings applied to metal furniture separately, this information shall also be recorded monthly and a calendar year sum shall be determined each January for the previous calendar year and recorded, or

2. If, in order to comply with Condition III(j), per Condition IV(h), the Permittee monitors total quantities of coatings used at the facility, the quantity of all coatings combined used shall be summed each January for the previous calendar year and recorded.

c. Based on the monitoring and calculations required under Condition IV(b) and the records kept under Condition V(b), the Permittee shall determine and keep records of the VOCs emitted from this equipment, in combination with similar VOC emitting equipment at the facility to ensure compliance with Condition II(a).

d. The Permittee shall maintain records of the type(s) and target hazardous air pollutant (HAP) contents of coatings used in any spray guns to document compliance with Condition III(f)(1).

e. The Permittee shall maintain records of the specifications and replacement dates of spray booth filters to document compliance with Condition III(g).

f. The Permittee shall maintain records of all maintenance performed on the spray booths.

g. The Permittee shall maintain records of any deviations from the requirements of Conditions II and III of this permit.

h. The Permittee shall maintain records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report required pursuant to Conditions VI(c) through (e). [40 CFR 63.11177(h)]

1. The Permittee shall maintain copies of any notifications and reports submitted pursuant to Condition VI. [40 CFR 63.11177(d) and 20 DCMR 500.8]

VI. Notification and Reporting Requirements:

a. The Permittee shall immediately contact the Air Quality Division’s Compliance and Enforcement Branch upon becoming aware of a sudden equipment failure or emergency or emissions in excess of any emission limit. The general phone number for the Department is (202) 535-2600.

b. In addition to complying with Condition VI(a) and any other reporting requirements mandated by the District of Columbia, the Permittee shall, within thirty (30) calendar days of becoming aware of any occurrence of excess emissions, supply the Department of the Environment in writing with the following information:

* + 1. The name and location of the facility;
    2. The subject source(s) that failed, experienced the emergency, or caused the excess emissions;
    3. The time and date of the first observation of the equipment failure, emergency, or excess emissions;
    4. The cause and estimate/expected duration of the excess emissions (if applicable); and
    5. The proposed corrective actions and schedule to correct the conditions causing the emergency or excess emissions.

1. Initial Notification: If not already completed, the Permittee shall immediately submit the initial notification required by 40 CFR 63.11175 to the U.S. Environmental Protection Agency (EPA) and the Department. *Note that this notification was due no later than January 11, 2010 for sources that commenced construction on or before September 17, 2007 or within 180 days after startup or July 7, 2008, whichever is later, for sources that commenced construction after September 17, 2007.* This initial notification must provide the following information:
2. The company name, if applicable;
3. The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;
4. The street address (physical location) of the affected source and the street address where compliance records are maintained, if different;
5. An identification of the relevant standard (i.e., 40 CFR part 63, subpart HHHHHH);
6. A brief description of the type of operation as specified in paragraph VI(c)(5)(i) or (ii):
7. For all surface coating operations, indicate whether the source is a motor vehicle and mobile equipment surface coating operation or a miscellaneous surface coating operation, and include the number of spray booths and preparation stations, and the number of painters usually employed at the operation;
8. For paint stripping operations, identify the method(s) of paint stripping employed (e.g., chemical, mechanical) and the substrates stripped (e.g., wood, plastic, metal);
9. Each paint stripping operation must indicate whether they plan to annually use more than one ton of MeCl after the compliance date.
10. A statement of whether the source is already in compliance with each of the relevant requirements of 40 CFR 63, Subpart HHHHHH, or whether the source will be brought into compliance by the compliance date. For paint stripping operations, the relevant requirements that the Permittee must evaluate in making this determination are specified in § 63.11173(a) through (d) of this 40 CFR 63, Subpart HHHHHH. For surface coating operations, the relevant requirements are specified in § 63.11173(e) through (g) of 40 CFR 63, Subpart HHHHHH.
11. If the source is a new source (i.e. construction commenced after September 17, 2007), the Permittee must certify in the initial notification whether the source is in compliance with each of the requirements of this subpart. If the source is an existing source (i.e. construction commenced on or before September 17, 2007), the Permittee may certify in the initial notification that the source is already in compliance. If the Permittee is certifying in the initial notification that the source is in compliance with the relevant requirements of this subpart, then include also a statement by a responsible official with that official's name, title, phone number, e-mail address (if available) and signature, certifying the truth, accuracy, and completeness of the notification, a statement that the source has complied with all the relevant standards of this subpart, and that this initial notification also serves as the notification of compliance status.
12. Notification of Compliance Status: If the Permittee is the owner or operator of a new source, the Permittee is not required to submit a separate notification of compliance status in addition to the initial notification specified in Condition VI(c) provided the Permittee was able to certify compliance on the date of the initial notification, as part of the initial notification, and the compliance status has not since changed. If the Permittee is the owner or operator of any existing source and did not certify in the initial notification that your source is already in compliance as specified in Condition VI(c), then the Permittee must submit a notification of compliance status. Pursuant to 40 CFR 63.11175(b) the regulatory requirement was to have submitted a Notification of Compliance Status on or before March 11, 2011. If the Permittee was required to submit such a notification and did not do so, this notification must be immediately submitted. *Note that this permit condition does not absolve the Permittee of not having met this requirement in the past, if it was applicable and not met, but rather establishes a method to return to compliance.* The Permittee shall to submit the information specified in Conditions VI(d)(1) through (3) with the Notification of Compliance Status [40 CFR 63.11175(b)]:
13. The Permittee’s company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different.
14. The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance. For this paint stripping source, the relevant requirements that the Permittee must evaluate in making this determination are specified in Condition III(a) and V(a).
15. The date of the Notification of Compliance Status.
16. Annual Notification of Changes Report: If the Permittee is the owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, the Permittee is required to submit a report in each calendar year in which information previously submitted in either the initial notification required by Condition VI(c) and 40 CFR 63.11175(a), Notification of Compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in Condition III(a) and V(a) on the date of the report will be deemed to be a change. This includes notification when paint stripping affected sources that have not developed and implemented a written MeCl minimization plan in accordance with 40 CFR 63.11173(b) used more than one ton of MeCl in the previous calendar year (should this be permitted via a subsequent permit amendment – see Condition III(k)). The annual notification of changes report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in Conditions VI(e)(1) through (2) as follows [40 CFR 63.11176]:
17. The Permittee’s company's name and the street address (physical location) of the affected source and the street address where compliance records are maintained, if different; and
18. The name, title, address, telephone, e-mail address (if available) and signature of the owner and operator, or other certifying company official, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.
19. Reports and notifications required under Condition VI of this permit shall be submitted to the Department and EPA at the following addresses, as applicable [40 CFR 63.13 and 20 DCMR 1409.1]:
20. EPA Region 3

Attn: Director, Air Protection Division

1650 Arch Street

Philadelphia PA 19103

1. Chief, Compliance and Enforcement Branch

Air Quality Division

Department of Energy and Environment

1200 First Street NE, 5th Floor

Washington DC 20002

If there are any further questions, please call me at (202) 535-1747 or Thomas Olmstead at (202) 535-2273.

Sincerely,

Stephen S. Ours, P.E.

Chief, Permitting Branch

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