

**GOVERNMENT OF THE DISTRICT OF COLUMBIA**

**District Department of the Environment**

Air Quality Division



February 21, 2013

Mr. Asmorom George, Operations Manager  
Challenger Cab LLC  
2626 Evarts Street, NE  
Washington, DC 20018

**Subject: Permit #6616-C to Construct a Paint Booth**

Dear Mr. George:

Pursuant to the Air Pollution control requirements of Title 20, Section 200 of the District of Columbia Municipal Regulations (20 DCMR), the application of Challenger Cab LLC. (“the Permittee”) for a permit to construct and operate a standard paint booth at 2626 Evarts Street NE, Washington DC, has been received. Permission to construct the standard spray paint booth per the submitted application, received on May 7, 2012, is granted subject to the following conditions:

I. General Requirements:

- a. The paint booth shall be constructed and upon receipt of a subsequent operating permit, operated in accordance with the air pollution control requirements of 20 DCMR.
- b. This permit-to-construct is a sixty (60) day permit and it expires on April 22, 2013 [20 DCMR 200.4]. If continued construction after this date is desired, the owner or operator shall submit a written request for an extension by April 8, 2013.
- c. Construction of equipment under the authority of this permit 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. The Permittee shall upgrade the exhaust stack system of the paint booth in accordance with the proposed corrective actions as detailed in the letter of December 19, 2012, from DLH Environmental, Inc. and addressed to the Air Quality Division of the District Department of the Environment.
- f. The Permittee shall, upon completion of the construction, request that the Department grant temporary approval to operate pursuant to 20 DCMR 200.3.
1. A separate application to operate pursuant to 20 DCMR Chapter 2 does not need to be submitted to the Department for the equipment or process covered by this construction permit. Upon a satisfactory demonstration by an on-site inspection that the equipment or process complies with all of the terms and conditions of this permit, including upgrading the existing stack height to a total stack height of 23 feet 4 inches from the floor slab inside the building, and ensuring that a “cap & damper” style of roof exhaust unit is installed, and all other applicable requirements specified in this permit are met, the Department will issue a Chapter 2 Operating Permit for this equipment.
  2. The applicant shall notify the Department sufficiently in advance of the demonstration and shall obtain the Department’s prior concurrence of the operating factors, time period, and other pertinent details relating to the demonstration.
  3. The provisions of 20 DCMR 200.2 shall not apply to the operation of equipment or processes for the purposes of initially demonstrating satisfactory performance to the Department following construction, installation, modification, or alteration of the equipment or processes.
- g. If modifications to the equipment design as submitted in the permit application or the proposed corrective actions or any revision thereof, are required, an amendment to this construction permit shall be obtained before making these design changes, unless the Department determines that no such amendment is required.
- h. Failure to comply with the provisions of this permit may be grounds for suspension or revocation. [20 DCMR 202.2]
- i. This permit shall be kept on the premises and produced upon request.

II. Emission Limits:

- a. No chemical strippers containing methylene chloride (MeCl) shall be used for paint stripping at the facility. [20 DCMR 201.1]
- b. Paints and refinishing coatings that contain volatile organic compounds (VOCs) in excess of the limits specified in Table I below, including any VOC containing materials added to the original coating supplied by the manufacturer, shall be prohibited. [20 DCMR 718.3]

**Table I:** Allowable Content of VOCs in Mobile Equipment Repair and Refinishing Coatings (*as applied*)

<b>Coating Type</b>	<b>Weight</b> (Pounds per gallon)	<b>Limit*</b> (Grams per liter)
Automotive pretreatment primer	6.5	780
Automotive primer-surfacer	4.8	575
Automotive primer-sealer	4.6	550
Automotive topcoat:		
single stage-topcoat	5.0	600
2 stage basecoat/clearcoat	5.0	600
3 or 4-stage basecoat/clearcoat	5.2	625
Automotive multi-colored topcoat	5.7	680
Automotive specialty coating	7.0	840

\*Weight of VOC per volume of coating (minus water and non-VOC solvents)

- c. 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]
- d. Visible emissions shall not be emitted into the outdoor atmosphere from the paint booth. [20 DCMR 201.1, 606 and 903.1]

III. Operational Limits and Standards:

- a. The use of a conventional spray gun is prohibited. Only High Volume Low Pressure (HVLP) spray guns or equivalent or better types shall be allowed. Other application methods deemed acceptable can be found in 20 DCMR 718.5. [20 DCMR 718.5 and 40 CFR 63.11173(e)(3)]
- b. The exhaust stack shall have a minimum height of 23 feet, 4 inches from the floor slab inside the building and shall have a cap and damper style of roof exhaust installed.

- c. Cleaning of tools and spray guns shall be performed in enclosed, recycling spray gun cleaning equipment. This equipment shall be kept closed when not in use. [20 DCMR 718.7 and 40 CFR 63.11173(e)(4)]
- d. The paint spray booth shall meet the following specifications:
  - 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. [40 CFR 63.11173 (e)(2)(i)]
  - 2. The exhaust filters shall be replaced as specified by manufacturers' specifications. If such specifications are unavailable or do not indicate a replacement frequency, they shall be replaced at least once every month or whenever a filter deficiency is identified, whichever is more frequent. There shall be at least one carton of replacement filters onsite at all times.
  - 3. The unit shall be fully enclosed with a full roof and four complete walls and must be ventilated at negative pressure so that air is drawn into any openings in the booth walls. [40 CFR 63.11173(e)(2)(ii)]
  - 4. The unit shall be maintained and operated at all time in accordance with manufacturer's recommendations.
- e. The owner and operator of this facility shall comply with the following housekeeping and pollution prevention measures [20 DCMR 718.8]:
  - 1. Store fresh and used coatings, solvent, and cleaning solvents in non-absorbent, non-leaking containers;
  - 2. Close all repairing and refinishing coating containers at all times except when filling or emptying;
  - 3. Store cloth and paper, or other absorbent applicators, moistened with coatings, solvents, or cleaning solvents in closed, non-absorbent, non-leaking containers; and
  - 4. Minimize spills during the handling and transfer of coatings, solvents, and cleaning solvents.
- f. The owner and operator of this facility shall comply with the following training measures:
  - 1. Ensure that any person who applies mobile equipment repair and refinishing coatings is trained in the proper use and handling of the mobile equipment repair and refinishing coatings, solvents and waste products [20 DCMR 718.8(e)].

2. All painters must be certified that they have completed training in the proper spray application of surface coatings and the proper setup and maintenance of spray equipment. The minimum requirements for such training and certification are described in Condition III(f)(3) of this permit. The spray application of surface coatings is prohibited by persons who are not certified as having completed the described training. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph. [40 CFR 63.11173(e)(1)]
  
3. Within 180 days of their hiring date, the owner or operator must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings are trained in the proper application of surface coatings as required by Condition III(f)(2) of this permit. The training program must include, at a minimum, the following [40 CFR 63.11173(f) and 40 CFR 63.11174(g)(1)]:
  - A. A list of all current personnel by name and job description who are required to be trained;
  
  - B. Hands-on classroom instruction that addresses, at a minimum, initial and refresher training in the following topics:
    - i. 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.
  
    - ii. 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.
  
    - iii. Routine spray booth and filter maintenance, including filter selection and installation.
  
    - iv. Environmental compliance with the requirements of 40 CFR 63, Subpart HHHHHH.

Owners and operators who can show by documentation or certification that a painter's work experience and/or training has resulted in training equivalent to the training required in i-iv above are not required to provide this training to these painters.

Painter training that was completed within five years prior to the date training is required, and that meets the requirements specified in i-iv above satisfies this

requirement and is valid for a period not to exceed five years after the date the training is completed.

- C. A description of the methods to be used at the completion of the initial or refresher training to demonstrate, document, and provide certification of successful completion of the required training.
4. Training and certification will be valid for a period not to exceed five years after the date the training is complete, and all personnel must receive refresher training that meets the requirements of Condition III(f)(3) and be recertified every five years. [40 CFR 63.11173(g)(3)]
- g. At all times, including periods of startup, shutdown, and malfunction, the owner 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.

**IV. Monitoring and Testing Requirements:**

- a. The Permittee shall monitor the contents of any chemical strippers used at the facility to ensure that they do not contain methylene chloride (MeCl).
- b. The Permittee shall track the volatile organic compound (VOC) content of all paints and refinishing coatings used at the facility, as applied to ensure compliance with Condition II(b). 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 refinishing coating is not applied as obtained from the manufacturer, the following method shall be used to determine the VOC content [20 DCMR 718.4]:
  - 1. 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  $8.345 \times 10^{-3}$  (lb/gal/g/l):

$$VOC = \frac{(W_v - W_w - W_{ec})}{(V - V_w - V_{ec})}$$

where:

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

W<sub>v</sub> = 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; and

2. The VOC content of a multi-stage topcoat shall be calculated by the following equation:

$$VOC_{multi} = \frac{VOC_{bc} + \sum_{i=0}^M VOC_{mci} + 2(VOC_{cc})}{M + 3}$$

where:

VOC<sub>multi</sub> = VOC content of multistage topcoat, g/l;  
VOC<sub>bc</sub> = VOC content of basecoat, g/l;  
VOC<sub>mci</sub> = VOC content of the midcoat(s), g/l;  
VOC<sub>cc</sub> = VOC content of the clear coat, g/l; and  
M = Number of midcoats.

- c. The Permittee shall maintain an awareness of the area to ensure that the odor and nuisance air pollutant requirements of Condition II(c) are met.
- d. The Permittee shall monitor the emission point from the spray booth to ensure that the requirements of Condition II(d) are met.
- e. The Permittee shall monitor the backup stores of spray booth filters to ensure that all filters meet the requirements of Conditions III(d)(1) and (2).
- f. The Permittee shall monitor the maintenance and operational status of the spray booth and the activities performed in the spray booth and at the facility to ensure compliance with the requirements of Conditions III(d)(4), III(e) and III(g).

V. Record Keeping Requirements:

Starting at the time of permit issuance (if not started earlier), the Permittee shall maintain the following records for not less than five years from the date of each record. [20 DCMR 500.8 and 40 CFR 63.11178]

- a. The Permittee shall maintain records of the types of chemical paint strippers used at the facility as well as their chemical make-up.
- 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.

- c. The Permittee shall maintain records of the type(s) of spray guns in use.
- d. The Permittee shall maintain records of the type and capture efficiency of all spray booth filters used at the facility [40 CFR 63.11177(b)].
- e. The Permittee shall maintain records of the replacement dates of spray booth filters to document compliance with Condition III(d)(2).
- f. The Permittee shall maintain records of all maintenance performed on the spray booth.
- g. The Permittee shall maintain records of certifications that each painter has completed the training specified in Condition III(f)(3). [40 CFR 63.11177(a)]
- h. The Permittee shall maintain records of all painter training required under Condition III(f) of this permit.
- i. The Permittee shall maintain copies of any notification and report required under Condition IV of this permit. [40 CFR 63.11177(d)]
- j. The Permittee shall maintain records of any deviation from the requirements of this permit. These records must include the date and time period of the deviation and a description of the nature of the deviation and the actions taken to correct the deviation. [40 CFR 63.11177(g)]
- k. The Permittee shall keep records of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report specified in Condition IV of this permit. [40 CFR 63.11177(h)]

**VI. Notification and Reporting Requirements:**

- a. **Initial Notification:** If not already completed by the date of issuance of this permit, the Permittee shall submit an initial notification that the facility is subject to 40 CFR Subpart HHHHHH, "National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources", **within 10 days after the issuance of this permit** in accordance with the following requirements [40 CFR 63.11175(a)]:
  - 1. The initial notification shall contain the following information:
    - A. The company name;
    - B. The name, title, street address, telephone number, e-mail address (if available), and signature of the owner and operator, or other certifying company official;

- C. The street address (physical location) of the affected source (the facility) and the street address where compliance records are maintained, if different;
  - D. An identification of the relevant standard (i.e., 40 CFR 63, Subpart HHHHHH);
  - E. A brief description of the type of operation including the fact that the source is a “motor vehicle and mobile equipment surface coating operation” as well as the number of spray booths and preparation stations and the number of painters usually employed at the operation. Also specify if paint stripping occurs at the facility and, if so, the method employed (e.g. chemical or mechanical). If chemical stripping is used and the requirements of this permit are met, the Permittee must specify that no methylene chloride is used;
  - F. A statement of whether the source is in compliance with 40 CFR 63, Subpart HHHHHH. For paint stripping operations, the relevant requirements that the Permittee must evaluate in making this determination are specified in 40 CFR 63.11173(a) through (d). For surface coating operations, the relevant requirements are specified in 40 CFR 63.11173(e) through (g). Note that this permit has been written to include the requirements of 40 CFR 63, Subpart HHHHHH.
  - G. Because this source is a new or reconstructed source, the Permittee must certify in the initial notification whether the source is in compliance with each of the requirements of 40 CFR 63, Subpart HHHHHH. If the Permittee is certifying in the initial notification that the source is in compliance with the relevant requirements of that subpart, then it must also include 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 sources has complied with all the relevant standards of the subpart, and that the initial notification also serves as the “notification of compliance status”.
2. The initial notification shall be submitted to each of the following addresses:

EPA Region III  
Director  
Air Protection Division  
1650 Arch Street  
Philadelphia, PA 19103

and

Chief, Compliance and Enforcement Branch  
District Department of the Environment  
Air Quality Division

1200 First St NE, 5<sup>th</sup> Floor  
Washington DC 20002

- b. *Annual Notification of Changes Report:* The Permittee shall submit a report, to the addresses specified in Condition VI(a)(2), in each calendar year in which information previously submitted in either the Initial Notification, the Notification of Compliance, or a previous Annual Notification of Changes Report has changed. Deviations from the requirements of this permit will be considered to be a change. This report must be submitted prior to March 1 of each calendar year when reportable changes occurred during the previous calendar year and must include the following information [40 CFR 63.11176(a)]:
1. The company's name and the street address (physical location) of the affected source (the facility) and the street address where compliance records are maintained, if different; and
  2. The name, title, address, telephone number, 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 permit or an explanation of any noncompliance and a description of corrective actions being taken to achieve compliance.
- c. 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.
- d. In addition to complying with Condition VI(c) and any other reporting requirements mandated by the District of Columbia, the owner or operator 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.

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If there are any further questions, please call me at (202) 535-1747 or John Nwoke at (202) 724-7778.

Sincerely;



Stephen S. Ours, P.E.  
Chief, Permitting Branch

SSO:JCN