AIR QUALITY REQUIREMENTS FOR MOTOR VEHICLE AND MOBILE EQUIPMENT COATING IN THE DISTRICT OF COLUMBIA

Overview of Permitting and Regulatory Requirements
MAJOR APPLICABLE REGULATIONS

• 20 DCMR § 200: General Permit Requirements

• 20 DCMR § 718 - Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations - Major revisions went into effect in February 2016

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

• 20 DCMR § 903 - Odorous or Other Nuisance Air Pollutants
APPLICABILITY

• Any person or facility that uses or applies automotive coatings in the District

• Any person that sells, supplies, distributes manufactures, blends or repackages automotive coatings in the District.
PERMITS

• All automotive painting operations must obtain a permit from the Air Quality Division (AQD).
  – Permit to Construct
  – Permit to Operate

• This permit is different from any permit or Certificate of Occupancy you might obtain from the Department of Consumer and Regulatory Affairs.

• This permit is related specifically to air pollutant emissions.
HOW DO I GET A PERMIT?

• Permit applications are found at: https://doee.dc.gov/publication/ch2applications
• Click on the link for “Application to Construct and Operate Auto Body Spray Painting Equipment”
• Complete the application. Make sure to read the text carefully and follow all instructions!
• Submit the application to the address on the form.
COMMON APPLICATION PROBLEMS

• Facility start-up dates are important. Do not leave blank! If you don’t know, consult with AQD.

• Include required attachments!
  – Paint booth design specifications
  – Filter specifications
  – Picture(s) of stack outlet (if existing)
  – Product data sheets for coatings and solvents

• If your stack is non-compliant, submit a plan to modify it to come into compliance.

• If you have more than one booth, submit one application per booth.
BESIDES GETTING A PERMIT, WHAT ELSE DO I NEED TO DO?

• The following slides provide an overview of requirements in the regulation and in the permits.

• These slides do not take the place of reading the permit!

• Your individual permit may have special requirements in certain circumstances.
PAINT BOOTHs

• All automotive painting must occur in a compliant paint booth with minor exceptions as follows:
  – Non-refillable aerosol coating products (spray cans)
  – 0.5 fluid ounce containers intended for the general public for touch-up or repair of small surface imperfections
  – Locally prepared mix of solvent and film forming solids to blend in spot repairs made to a discrete body panel (cleaning solvent used for this purpose is not exempt)
PAINT BOOTH SPECIFICATIONS/OPERATION

• Filter with 98-percent or more capture efficiency for particulate matter (arrestance)

• Filters replaced as specified by manufacturers and at least once every month.

• The unit shall be fully enclosed with a full roof and four complete walls with no emissions release except through the exhaust stack.

• All paint spray booth openings are closed while coating is applied.
EXHAUST STACK REQUIREMENTS

• 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 height and velocity sufficient to avoid downwash effects or exhaust being drawn into nearby building intakes; and
• Exhaust exit that does not impede the upward direction of the emission discharge.
  – Rain caps and goosenecks are not allowed.
  – Butterfly caps (up-blast stack caps) or stack sleeves are fine.
EMISSION LIMITS

Table I. Allowable VOC Content in Automotive Coatings for Motor Vehicle and Mobile Equipment Non-Assembly Line Refinishing and Recoating

<table>
<thead>
<tr>
<th>Coating Category</th>
<th>VOC Regulatory Limit As Applied*</th>
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<tbody>
<tr>
<td></td>
<td>(Pounds per gallon)</td>
</tr>
<tr>
<td>Adhesion promoter</td>
<td>4.5</td>
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<tr>
<td>Automotive pretreatment coating</td>
<td>5.5</td>
</tr>
<tr>
<td>Automotive primer</td>
<td>2.1</td>
</tr>
<tr>
<td>Clear coating</td>
<td>2.1</td>
</tr>
<tr>
<td>Color coating, including metallic/iridescent color coating</td>
<td>3.5</td>
</tr>
<tr>
<td>Multicolor coating</td>
<td>5.7</td>
</tr>
<tr>
<td>Other automotive coating type</td>
<td>2.1</td>
</tr>
<tr>
<td>Single-stage coating, including single-stage metallic/iridescent coating</td>
<td>2.8</td>
</tr>
<tr>
<td>Temporary protective coating</td>
<td>0.50</td>
</tr>
<tr>
<td>Truck bed liner coating</td>
<td>1.7</td>
</tr>
<tr>
<td>Underbody coating</td>
<td>3.6</td>
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<tr>
<td>Uniform finish coating</td>
<td>4.5</td>
</tr>
</tbody>
</table>

*VOC regulatory limit as applied = weight of VOC per volume of coating (prepared to manufacturer’s recommended maximum VOC content, minus water and non-VOC solvents)
EMISSION LIMITS CONTINUED

• VOC content limit of 25 grams per liter for cleaning solvents (with a few exceptions)

• Special requirements if you use chemical strippers containing methylene chloride (MeCl)

• Must comply with the District’s nuisance odor regulation
ACCEPTABLE APPLICATION METHODS

- Spray-applied coatings:
  - High-volume low-pressure (HVLP) spraying;
  - Electrostatic application;
  - Airless spray; and
  - Air-assisted airless spray; or
  - An alternative approved method
- Flow/curtain coating;
- Dip coating;
- Roller coating;
- Brush coating;
- Cotton-tipped swab application
SPRAY GUN CLEANING METHODS

• A fully enclosed spray gun cleaning system that is kept closed when not in use;

• An unatomized discharge of cleaning solvent into a paint waste container that is kept closed when not in use; or

• Disassembly of the spray gun and cleaning in a vat that is kept closed when not in use.
HOUSEKEEPING

• Fresh and used coating components are stored in vapor-tight containers
• Moist absorbent applicators must be stored in vapor-tight containers
• Minimize spills during the transfer of coatings and solvents
TRAINING

• Operators must be trained in proper handling of automotive solvents

• All painters must be certified in proper spray application of surface coating
NOTIFICATIONS

• All notifications required under the federal NESHAP (40 CFR 63, Subpart HHHHHHH) should have already been submitted to EPA if your shop has been in existence for more than 6 months.

• Don’t forget to submit “Annual Notification of Changes Report” if compliance status has changed.
CONTACT US (PLEASE!)

If you have questions, please call or email us.

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