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

Overview of Permitting and Regulatory Requirements



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What is Regulated by the Air Program?

- Painting Operations
- Parts Washers/Degreasers
- Stationary Fuel-Burning Equipment and Generators
- Anything else that emits air pollution



Air Quality Permits Required

- All automotive painting operations must obtain a permit from the Air Quality Division (AQD).
 - Permit to Construct
 - Permit to Operate
- Other equipment such as parts washers, boilers, or generators may also require permits.
 - Parts washers with solvents that are >5% VOC or HAP by weight and greater than 1 liter in volume.
 - Certain other types of parts washers
 - Boilers with heat input ratings > 5 MMBTU/hr
 - All stationary generators



Air Quality Permits vs. Other Permits

- This type of permit is different from any building permit, Certificate of Occupancy, other permit you might obtain from the Department of Buildings (DOB), the Department of Licensing and Consumer Protection (DLCP), or any other agency.
- This type of permit is related specifically to air pollutant emissions.



How do I Apply for a Permit?

- Permit applications are found at: <u>https://doee.dc.gov/node/9212</u>
- Specific Application Links
 - Automotive Paint Booth
 - Parts Washers/Degreasers
 - Boilers
- Complete the application. <u>Make sure to read the</u> <u>text carefully and follow all instructions!</u>
- Upload the application and attachments online at: <u>http://octo.quickbase.com/db/brrainbnz?a=nwr</u>
- Assistance in non-English languages is available.



What Happens After I Submit My Application?

- An application fee invoice will be emailed to the "submitter".
- Fees for a 5-year permit are:
 - Automotive Paint Booth: \$500
 - Parts Washer: \$250
 - Boilers: \$300-\$1000, depending on size
 - Full Fee Schedule at 20 DCMR § 211.
- AQD will review the application, contact the applicant with any questions, and draft the permit.
- The draft permit is release for public review/comment for 30 days.
- The final permit is issued after public review is complete.
- This process typically takes several months.



Common Paint Booth 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?

- Comply with the permit!
- The following slides provide an overview of requirements in the regulations and in the permits.
- These slides do not take the place of reading your permit(s).



- 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 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

	VOC Regulatory Limit As Applied*	
Coating Category	(Pounds per	(Grams per
	gallon)	liter)
Adhesion promoter	4.5	540
Automotive pretreatment coating	5.5	660
Automotive primer	2.1	250
Clear coating	2.1	250
Color coating, including metallic/iridescent color coating	3.5	420
Multicolor coating	5.7	680
Other automotive coating type	2.1	250
Single-stage coating, including single-stage metallic/iridescent coating	2.8	340
Temporary protective coating	0.50	60
Truck bed liner coating	1.7	200
Underbody coating	3.6	430
Uniform finish coating	4.5	540

*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



- Operators must be trained in proper handling of automotive solvents
- All painters must be certified in proper spray application of surface coating



- All notifications required under the federal NESHAP (40 CFR 63, Subpart HHHHH) 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.



Other Requirements

- All permits also have:
 - Monitoring and Testing Requirements
 - Record Keeping Requirements
 - Reporting Requirements
- Make sure that you are fully familiar with the requirements of your specific permit!



- The requirements for parts washers and degreasers vary depending upon the type of unit:
 - Remote Reservoir/Spray Sink
 - Dip Tank
 - Cold Solvent vs. Heated vs. Vapor
 - Do Solvents Contain Hazardous Air Pollutants (HAPs)?
 - ... And many others



Typical Parts Washer/Degreaser Requirements

- Nuisance Odor requirements
- Prohibition on use of HAPs:
 - Methylene Chloride
 - Perchloroethylene
 - Trichloroethylene
 - 1,1,1-trichlorethane
 - Carbon Tetrachloride
 - Chloroform



Typical Parts Washer/Degreaser Requirements

- Equipment labels with use instructions
- Requirements for the use of a cover on the unit
- Requirements for waste solvent storage
- Requirements for use of the equipment such as only working within the freeboard of the unit
- Limits on use of fans near units when in use



Typical Parts Washer/Degreaser Requirements

- Limits on what can be cleaned in the unit
- How to handle spills and clean-up rags
- Solvent vapor pressure limits (usually 1.0 mmHg at 20°C)
- Record keeping requirements related to solvent supplier, solvent type/specifications, delivery information.



Contact Us (Please!)

If you have questions, please call or email:

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