

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
REGULATIONS FOR THE CONTROL AND ABATEMENT OF AIR POLLUTION

9 VAC 5 CHAPTER 40.
EXISTING STATIONARY SOURCES.

PART II.
Emission Standards.

ARTICLE 28.
Emission Standards For Automobile And Light Duty
Truck Coating Application Systems (Rule 4-28).

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9 VAC 5-40-3860. Applicability and designation of affected facility.

A. Except as provided in subsection C of this section, the affected facility to which the provisions of this article apply is each automobile or light duty truck coating application system.

B. The provisions of this article apply only to sources of volatile organic compounds in volatile organic compound emissions control areas designated in 9 VAC 5-20-206.

C. The provisions of this article do not apply to the following:

1. Coating application systems used exclusively for determination of product quality and commercial acceptance provided:

a. The operation is not an integral part of the production

process;

b. The emissions from all product quality coating application systems do not exceed 400 pounds in any 30 day period; and

c. The exemption is approved by the board.

2. Vehicle refinishing operations.

9 VAC 5-40-3870. Definitions.

A. For the purpose of these regulations and subsequent amendments or any orders issued by the board, the words or terms shall have the meaning given them in subsection C of this section.

B. As used in this article, all terms not defined here shall have the meaning given them in 9 VAC 5 Chapter 10 (9 VAC 5-10-10 et seq.), unless otherwise required by context.

C. Terms defined.

"Anti-chip coating" means a resilient coating applied over the prime coat and beneath the topcoat to body parts prone to chip damage for the purpose of protecting the topcoat from chipping.

"Application area" means the area where the coating is applied by spraying, dipping or flow coating techniques.

"Automobile" means any passenger car or passenger car derivative capable of seating 12 or fewer passengers.

"Carbon adsorption system" means a device containing activated carbon as the adsorbent material, an inlet and outlet for exhaust gases, and a system to regenerate the saturated adsorbent. The carbon adsorption system must provide for the proper disposal or reuse of all volatile organic compounds in the adsorbate.

"Clear coating" means a coating which lacks color and opacity or is transparent and uses the undercoat or basecoat as a reflectant base or undertone color.

"Coating applicator" means an apparatus used to apply a surface coating.

"Coating application system" means any operation or system in which a surface coating of one type or function is applied, dried or cured and which is subject to the same emission standard. May include any equipment which applies, conveys, dries or cures a surface coating, including, but not limited to, spray booths, flow coaters, flashoff areas, air dryers, drying areas and ovens. It is not necessary for a coating

application system to have an oven, flashoff area or drying area to be included in this definition.

"Electrocoat primer" means the initial coating on components of automobile or light-duty truck bodies that is applied by electrode position.

"Extreme environmental conditions" means exposure to any one of the following: weather all of the time, temperatures consistently above 95°C, detergents, scouring, solvents, corrosive atmospheres or similar environmental conditions.

"Extreme performance coatings" means coatings which are required to be used by design specification on products designed for harsh exposure or extreme environmental conditions.

"Flashoff area" means the space between the application area and the oven.

"Guidecoat" means the surface coating applied over the electrocoat primer and beneath the topcoat.

"Light-duty truck" means any motor vehicle rated at 8,500 pounds gross vehicle weight or less which is designed primarily for purposes of transportation of property or is a derivative of such a vehicle; includes pickups, vans and window vans.

"Oven" means a chamber within which heat is used to bake, cure, polymerize or dry a surface coating or any combination of these.

"Topcoat" means the final coating applied to components of automobile or light-duty truck bodies.

9 VAC 5-40-3880. Standard for volatile organic compounds.

A. Prime application.

1. No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of 1.2 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

2. Achievement of the emission standard in subsection A 1 of this section by use of methods in 9 VAC 5-40-3890 A will be acceptable to the board.

B. Guidecoat application.

1. No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in

excess of 2.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

2. Achievement of the emission standard in subsection B 1 of this section by use of methods in 9 VAC 5-40-3890 B will be acceptable to the board.

C. Topcoat application.

1. No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of 15.1 pounds per gallon of solids applied to the automobile or light-duty truck components or 2.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

2. Achievement of the emission standard in subsection C 1 of this section by use of methods in 9 VAC 5-40-3890 C will be acceptable to the board.

D. Final repair application.

1. No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of 4.8 pounds per gallon of coating, excluding water, as delivered by the coating applicator.

2. Achievement of the emission standard in subsection D 1 of this section by use of methods in 9 VAC 5-40-3890 D will be acceptable to the board.

E. Anti-chip coating application.

1. Except as provided in subsection E 2 of this section, no owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of:

a. 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings; or

b. 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

2. No owner or other person shall cause or permit the discharge into the atmosphere from a coating application system any volatile organic compound in excess of 2.8 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies anti-chip coatings to the visible surface of main body parts.

3. Achievement of the emission standard in subsections E 1 and 2 of this section by use of methods in 9 VAC 5-40-3890 E will be acceptable to the board.

F. The provisions of subsections A, B, and C of this section shall not be applicable to the use of wheel enamels, anti-rust coatings, and sealers or other coating operations not associated with prime, guidecoat, or topcoat application to the vehicle body.

G. No owner or other person shall use any coating application system or equipment unless reasonable precautions are taken to minimize the discharge of emissions from cleaning or purging operations. Reasonable precautions may include the following:

1. The use of capture or control devices or both;
2. The use of detergents, high pressure water, or other non-volatile cleaning methods;
3. The minimization of the quantity of volatile organic compounds used to clean lines of equipment; or
4. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of a system.

9 VAC 5-40-3890. Control technology guidelines.

A. Prime application. The control technology should consist of one or more of the following:

1. Use of electrodeposited waterborne coatings.
2. Use of other waterborne coatings.
3. Use of lower solvent (higher solids) organic solvent-borne systems.
4. Carbon adsorption.
5. Incineration.
6. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-3880 A 1, provided such technology is approved by the board.

B. Guidecoat application. The control technology should consist of one or more of the following:

1. Use of waterborne coatings;

2. Use of lower solvent (higher solids) organic solvent-borne systems;
3. Carbon adsorption; and
4. Incineration; or
5. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-3880 B 1, provided such technology is approved by the board.

C. Topcoat application. The control technology should consist of one or more of the following:

1. Use of waterborne coatings;
2. Use of lower solvent (higher solids) organic solvent-borne systems;
3. Carbon adsorption; and
4. Incineration; or
5. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-3880 C 1, provided such technology is approved by the board.

D. Final repair application. The control technology should consist of one or more of the following:

1. Use of lower solvent (higher solids) organic solvent borne systems;
2. Carbon adsorption; and
3. Incineration; or
4. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-3880 D 1, provided such technology is approved by the board.

E. Anti-chip coating application. The control technology should consist of one or more of the following:

1. Use of electrodeposited waterborne coatings;
2. Use of other waterborne coatings;
3. Use of high solids coatings;

4. Use of powder coatings;
5. Carbon adsorption; and
6. Incineration; or

7. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-3880 E 1, provided such technology is approved by the board.

9 VAC 5-40-3900. Standard for visible emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of this chapter (Emission Standards for Visible Emissions and Fugitive Dust/Emissions, Rule 4-1) apply.

9 VAC 5-40-3910. Standard for fugitive dust/emissions.

The provisions of Article 1 (9 VAC 5-40-60 et seq.) of this chapter (Emission Standards for Visible Emissions and Fugitive Dust/Emissions, Rule 4-1) apply.

9 VAC 5-40-3920. Standard for odor.

The provisions of Article 2 (9 VAC 5-40-130 et seq.) of this chapter (Emission Standards for Odor, Rule 4-2) apply.

9 VAC 5-40-3930. Standard for toxic pollutants.

The provisions of Article 3 (9 VAC 5-40-160 et seq.) of this chapter (Emission Standards for Toxic Pollutants, Rule 4-3) apply.

9 VAC 5-40-3940. Compliance.

A. The provisions of 9 VAC 5-40-20 (Compliance) apply.

B. The emission standards in 9 VAC 5-40-3880 apply coating by coating or to the volume weighted average of coatings where the coatings are used on a single coating application system and the coatings are the same type or perform the same function. Such averaging shall not exceed 24 hours.

C. Compliance determinations for control technologies not based on compliant coatings (i.e., coating formulation alone) shall be based on the applicable standard in terms of pounds of volatile organic compounds per gallon solids or pounds of volatile organic compounds per gallon solids applied according to the applicable procedure in 9 VAC 5-20-121. Compliance may also be based on transfer efficiency greater than the board accepted baseline transfer efficiency if demonstrated by methods acceptable to the

board according to the applicable procedure in 9 VAC 5-20-121.

9 VAC 5-40-3950. Test methods and procedures.

The provisions of 9 VAC 5-40-30 (Emission Testing) apply.

9 VAC 5-40-3960. Monitoring.

The provisions of 9 VAC 5-40-40 (Monitoring) apply.

9 VAC 5-40-3970. Notification, records and reporting.

The provisions of 9 VAC 5-40-50 (Notification, Records and Reporting) apply.

9 VAC 5-40-3980. Registration.

The provisions of 9 VAC 5-20-160 (Registration) apply.

9 VAC 5-40-3990. Facility and control equipment maintenance or malfunction.

The provisions of 9 VAC 5-20-180 (Facility and Control Equipment Maintenance or Malfunction) apply.

9 VAC 5-40-4000. Permits.

A permit may be required prior to beginning any of the activities specified below and the provisions of 9 VAC 5 Chapter 50 (9 VAC 5-50-10 et seq.) and 9 VAC 5 Chapter 80 (9 VAC 5-80-10 et seq.) may apply. Owners contemplating such action should contact the appropriate regional office for guidance.

1. Construction of a facility.
2. Reconstruction (replacement of more than half) of a facility.
3. Modification (any physical change to equipment) of a facility.
4. Relocation of a facility.
5. Reactivation (restart-up) of a facility.

HISTORICAL NOTES:

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