

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 34.  
Emission Standards For Miscellaneous Metal Parts  
and Products Coating Application Systems (Rule 4-34).

- 9 VAC 5-40-4760. Applicability and designation of affected facility.
- 9 VAC 5-40-4770. Definitions.
- 9 VAC 5-40-4780. Standard for volatile organic compounds.
- 9 VAC 5-40-4790. Control technology guidelines.
- 9 VAC 5-40-4800. Standard for visible emissions.
- 9 VAC 5-40-4810. Standard for fugitive dust/emissions.
- 9 VAC 5-40-4820. Standard for odor.
- 9 VAC 5-40-4830. Standard for toxic pollutants.
- 9 VAC 5-40-4840. Compliance.
- 9 VAC 5-40-4850. Test methods and procedures.
- 9 VAC 5-40-4860. Monitoring.
- 9 VAC 5-40-4870. Notification, records and reporting.
- 9 VAC 5-40-4880. Registration.
- 9 VAC 5-40-4890. Facility and control equipment maintenance or malfunction.
- 9 VAC 5-40-4900. Permits.

9 VAC 5-40-4760. Applicability and designation of affected facility.

A. Except as provided in subsections C and D of this section, the affected facility to which the provisions of this article apply is each miscellaneous metal parts and products 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. On and after February 1, 2017, this article does not apply to sources in the Northern Virginia Volatile Organic Compound Emissions Control Area designated in 9VAC5-20-206. These sources are subject to Article 59 (9VAC5-40-8810 et seq.) of this part.

C. Exempted from the provisions of this article are coating plants whose emissions of volatile organic compounds are not more than 2.7 tons per year, 15 pounds per day and three pounds per hour, based on the actual emission rate. All volatile

organic compound emissions from purging or washing solvents shall be considered in applying the exemption levels specified in this subsection.

D. 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.

3. Vehicle customized coating operations, if production is less than 20 vehicles per day.

4. Fully assembled aircraft and marine vessel exterior coating operations.

9 VAC 5-40-4770. 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.

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

"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 as a reflectant base or undertone color.

"Coating application system" means any operation or system where 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.

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

"Extreme environmental conditions" means exposure to any one of the following: the weather all of the time, temperatures consistently above 95EC, 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.

"Miscellaneous metal parts and products" means any part or product from the following industrial categories:

- a. Large farm machinery (harvesting, fertilizing and planting machines, tractors, combines, etc.);
- b. Small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.);
- c. Small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.);
- d. Commercial machinery (computers and auxiliary equipment, typewriters, calculators, vending machines, etc.);
- e. Industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.);
- f. Fabricated metal products (i.e., metal covered doors, frames);  
and
- g. Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35

(nonelectrical machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38 (miscellaneous instruments), Major Group 39 (miscellaneous manufacturing industries), Major Group 40 (railroad transportation), and Major Group 41 (transit passenger transportation). "Major groups" (i.e., which have the same two-digit code) shall be described in the Standard Industrial Classification Manual (see 9 VAC 5-20-21).

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

9 VAC 5-40-4780. Standard for volatile organic compounds.

A. 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. 4.3 pounds per gallon of coating, excluding water, delivered to the coating applicator that applies clear coatings;
2. 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator in a coating application system that utilizes air or forced air driers;
3. 3.5 pounds per gallon of coating, excluding water, delivered to a coating applicator that applies extreme performance coatings, or
4. 3.0 pounds per gallon of coating, excluding water, delivered to a coating applicator for all other coatings and coating application systems.

B. If more than one emission limitation in subsection A of this section applies to a specific coating, then the least stringent emission limitation shall be applied.

C. Achievement of the emission standard in subsection A of this section by use of methods in 9 VAC 5-40-4790 will be acceptable to the board.

D. No owner or other person shall use any coating application system or equipment unless reasonable precautions are taken to minimize the discharge or 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; and

4. The adjustment of production schedules to minimize coating changes thereby reducing the need for frequent cleaning or purging of a system.

9 VAC 5-40-4790. Control technology guidelines.

The control technology should consist of one of the following:

1. Use of electrodeposited waterborne coatings;
2. Use of waterborne coatings;
3. Use of high-solids coatings;
4. Use of powder coatings;
5. Carbon adsorption;
6. Incineration; or

7. Any technology of equal or greater control efficiency when compared to the use of a coating complying with 9 VAC 5-40-4780 A, provided such technology is approved by the board.

9 VAC 5-40-4800. 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 5-40-4810. 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 5-40-4820. 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 5-40-4830. 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 5-40-4840. Compliance.

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

B. The emission standards in 9 VAC 5-40-4780 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 5-40-4850. Test methods and procedures.

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

9 VAC 5-40-4860. Monitoring.

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

9 VAC 5-40-4870. Notification, records and reporting.

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

9 VAC 5-40-4880. Registration.

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

9 VAC 5-40-4890. 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 5-40-4900. 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:

Derived from: Rule 4-34 of Part IV of VR 120-01 (§ 120-04-3401 through § 120-04-3415)

Promulgated: January 30, 1979

Promulgated: October 5, 1979

Effective Date: November 30, 1979

Amended: January 1, 1985

Amended: October 1, 1986

Amended: July 1, 1991

Amended: February 1, 2016

REG\VAC\434