

100 Air Quality Management Section
1124 Control of Volatile Organic Compound Emissions

19.0 Coating of Metal Furniture

04/11/2010

19.1 Applicability

19.1.1 The provisions of 19.0 of this regulation apply to any metal furniture coating unit. Except as provided in 19.1.2 of this regulation, every owner or operator of any metal furniture coating unit shall comply with the provisions of 19.0 of this regulation on and after 04/11/2010.

19.1.2 Transition period for existing permitted sources. Every owner or operator of any metal furniture coating unit that has a permit issued pursuant to 7 **DE Admin Code** 1102 or 1130 containing all applicable conditions of 19.0 of this regulation, as that regulation existed on January 11, 1993, shall comply with those permit conditions until December 31, 2010. On and after January 1, 2011 every such owner or operator of any metal furniture coating unit shall comply with the provisions of 19.0 of this regulation.

19.1.3 Except as provided in 19.1.4 of this regulation, the provisions of 19.0 of this regulation do not apply to any metal furniture coating unit within a facility whose actual emissions without control devices from all metal furniture coating units within the facility, including emissions from related cleaning activities, are less than 6.8 kilograms (kg) (15 pounds [lb]) of volatile organic compounds (VOCs) per day.

19.1.4 An owner or operator of a facility whose emissions are below the applicability threshold in 19.1.3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements of 19.7.1 of this regulation.

19.1.5 Any facility that becomes or is currently subject to the provisions of 19.0 of this regulation by exceeding the applicability threshold in 19.1.3 of this regulation shall remain subject to these provisions even if emissions later fall below the applicability threshold.

19.1.6 Any facility that is currently subject to a state or federal rule promulgated pursuant to the Clean Air Act Amendments of 1977 by exceeding an applicability threshold is and shall remain subject to these provisions, even if throughput or emissions later fall below the applicability threshold.

19.2 Definitions. As used in 19.0 of this regulation, all terms not defined herein shall have the meaning given them in the November 15, 1990 Clean Air Act Amendments, or in 2.0 of this regulation.

“Metal furniture” means any furniture piece made of metal or any metal part that will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece including, but not limited to, tables, chairs, waste baskets, beds, desks, lockers, benches, shelving, file cabinets, fixtures, lamps, lighting units, and room dividers.

“Metal furniture coating unit” means a coating unit in which a protective, decorative, or functional coating is applied onto the surface of metal furniture.

19.3 Standards

19.3.1 Except as provided in 19.4.1 of this regulation, no owner or operator of a metal furniture coating unit subject to 19.0 of this regulation shall cause or allow the application of any coating to metal furniture unless:

19.3.1.1 The VOC content of the coating is less than or equal to the limits listed in Table 19-1 of this regulation, or

Table 19-1 Metal Furniture Coating VOC Content Limits

VOC content limits are expressed as mass (either kilogram [kg] or pound [lb]) per volume (either liter [l] or gallon [gal]) of coating less water and exempt compounds, as applied.

Coating Category	Baked		Air Dried	
	kg VOC/l coating	lb VOC/gal coating	kg VOC/l coating	lb VOC/gal coating
General, one-component	0.275	2.3	0.275	2.3
General, multi-component	0.275	2.3	0.340	2.8
Extreme high-gloss	0.360	3.0	0.340	2.8
Extreme performance	0.360	3.0	0.420	3.5
Heat-resistant	0.360	3.0	0.420	3.5
Metallic	0.420	3.5	0.420	3.5
Pretreatment	0.420	3.5	0.420	3.5
Solar-absorbent	0.360	3.0	0.420	3.5

19.3.1.2 For a metal furniture coating unit that applies multiple coatings, which are subject to the same numerical emission limitation in Table 19-1 of this regulation, the daily-weighted average VOC content, calculated in accordance with the procedure specified in **Appendix C** of this regulation, is less than or equal to the limit in Table 19-1 of this regulation corresponding to the category of coating used, or

19.3.1.3 Control equipment is installed and operated that achieves an emission reduction efficiency in accordance with 19.5 of this regulation. The requirements of 19.3.2 of this regulation shall not apply to any metal furniture coating unit that achieves an emission reduction efficiency of 95% or greater.

19.3.2 Except as provided in 19.3.1.3 and 19.4 of this regulation, no owner or operator of a metal furniture coating unit subject to 19.0 of this regulation shall apply a coating to metal furniture unless the coating is applied with equipment properly operating and maintained according to the manufacturer's suggested guidelines and using one or more of the following coating application methods:

19.3.2.1 Electrostatic spray

19.3.2.2 Flow coating

19.3.2.3 Dip coating, including electrodeposition

19.3.2.4 Roll coating

19.3.2.5 High-volume, low-pressure (HVLP) spray

19.3.2.6 Hand application

19.3.2.7 An alternative method that is demonstrated to be capable of achieving a transfer efficiency equal to or better than HVLP spray and approved by the Department

19.4 Specific Exemptions

19.4.1 The requirements of 19.3.1 and 19.3.2 of this regulation shall not apply for the following types of coatings:

- 19.4.1.1 Stencil coatings
- 19.4.1.2 Safety-indicating coatings
- 19.4.1.3 Solid film lubricants
- 19.4.1.4 Electric-insulating and thermal-conducting coatings
- 19.4.1.5 Aerosol coating product
- 19.4.1.6 Powder coatings

19.4.2 The requirements of 19.3.2 of this regulation shall not apply to touch-up and repair coatings.

19.5 Control Devices

19.5.1 An owner or operator of a metal furniture coating unit subject to 19.3.1.3 of this regulation shall determine the emission reduction efficiency needed to comply and demonstrate compliance as follows:

- 19.5.1.1 Determine for each day the overall emission reduction efficiency needed to demonstrate compliance. The overall emission reduction needed for a day is the lesser of the value calculated according to the procedure in 3.3 of **Appendix C** of this regulation for that day or 95%.
- 19.5.1.2 Demonstrate each day that the overall emission reduction efficiency achieved for that day, as determined in **Appendix D** of this regulation, is greater than or equal to the overall emission reduction efficiency required for that day.

19.5.2 An owner or operator of a metal furniture coating unit subject to 19.3.1.3 of this regulation shall ensure that:

- 19.5.2.1 A capture system and control device are operated at all times that the unit is in operation, and the owner or operator demonstrates compliance with 19.0 of this regulation through the applicable coating analysis and capture system and control device efficiency test methods specified in **Appendix B**, **Appendix D** and **Appendix E** of this regulation and in accordance with the capture efficiency test methods in **Appendix D** of this regulation.
- 19.5.2.2 The control device is equipped with the applicable monitoring equipment specified in 2.0 of **Appendix D** of this regulation, and the monitoring equipment is installed, calibrated, operated, and maintained according to the vendor's specifications at all times the control device is in use.

19.6 Test Methods. The test methods found in **Appendix A** through **Appendix D** of this regulation shall be used to determine compliance with 19.0 of this regulation.

19.6.1 The acid content of pretreatment coatings and etching fillers shall be determined by ASTM International Method D 1613.

19.6.2 The metal particle content of metallic coatings shall be determined by the California South Coast Air Quality Management District (SCAQMD) Method 318 "Determination of Weight Percent of Elemental Metal in Coatings by X-Ray Diffraction Method" contained in the SCAQMD "Laboratory Methods of Analysis of Enforcement Samples" (for coatings containing aluminum) or by SCAQMD Method 311 "Analysis of Percent Metal in Metallic Coatings by Spectrographic Method"

contained in the SCAQMD "Laboratory Method of Analysis of Enforcement Samples" (for coatings containing metals other than aluminum).

19.7 Compliance Certification, Recordkeeping and Reporting Requirements

- 19.7.1 An owner or operator of a metal furniture coating unit exempt from the requirements of 19.3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements in 4.2 of this regulation.
- 19.7.2 An owner or operator of a metal furniture coating unit subject to 19.0 of this regulation and complying with 19.3.1.1 of this regulation by the use of compliant coatings shall comply with the certification, recordkeeping, and reporting requirements in 4.3 of this regulation.
- 19.7.3 An owner or operator of a metal furniture coating unit subject to 19.0 of this regulation and complying with 19.3.1.2 of this regulation by daily-weighted averaging shall comply with the certification, recordkeeping, and reporting requirements in 4.4 of this regulation.
- 19.7.4 An owner or operator of a metal furniture coating unit subject to 19.0 of this regulation and complying with 19.3.1.3 of this regulation by the use of control devices shall comply with the testing, reporting, and recordkeeping requirements in 4.5 of this regulation.
- 19.7.5 An owner or operator of a metal furniture coating unit subject to 19.3.2 of this regulation shall maintain at the facility a copy of the equipment manufacturer's suggested operating and maintenance guidelines, and provide a copy to the Department upon request.