1124 Control of Volatile Organic Compound Emissions

20.0 Coating of Large Appliances

~~01/11/1993~~xx/xx/2010

20.1 Applicability

20.1.1 The provisions of 20.0 of this regulation apply to any large appliance coating unit. Except as provided for in 20.1.2 of this regulation, every owner or operator of any large appliance coating unit shall comply with the provisions of 20.0 of this regulation on and after [insert effective date].

20.1.2 Transition period for existing permitted sources. Every owner or operator of any large appliance coating unit that has a permit issued pursuant to 7 **DE Admin Code** 1102 or 1130 containing all applicable conditions of 20.0 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 large appliance coating unit shall comply with the provisions of 20.0 of this regulation.

20.1.~~2~~3 Except as provided for in 20.1.4 of this regulation, the ~~The~~ provisions of 20.0 of this regulation do not apply to~~:~~ any large appliance coating unit within a facility whose actual emissions without control devices from all large appliance coating units within the facility, including related cleaning activities, are less than 6.8 kilograms (kg) (15 pounds [lb]) of volatile organic compounds (VOCs) per day.

~~20.1.2.1 Any large appliance coating unit within a facility whose actual emissions without control devices from all large appliance coating units within the facility are less than 6.8 kilograms (kg) (15 pounds [lb]) of volatile organic compounds (VOCs) per day.~~

~~20.1.2.2 The use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 0.95 liter (L) (0.25 gallon [gal]) in any one 8-hour period.~~

20.1.~~3~~4 An owner or operator of a facility whose emissions are below the applicability threshold in 20.1.~~2~~3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements of 20.7.1 of this regulation.

20.1.~~4~~5 Any facility that becomes or is currently subject to the provisions of 20.0 of this regulation by exceeding the applicability threshold in 20.1.~~2~~3 of this regulation ~~will~~ shall remain subject to these provisions even if its emissions ~~or coating volume used~~ later fall below the applicability thresholds.

20.1.~~5~~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 ~~will~~ shall remain subject to these provisions, even if ~~its~~ throughput or emissions ~~have fallen or~~ later fall below the applicability threshold.

20.2 Definitions. As used in 20.0 of this regulation, all terms not defined herein shall have the meaning given them in the November 15, 1990 Clean Air Act Amendments (CAAA), or in 2.0 of this regulation.

"**Large appliance**" means any residential or commercial washer, dryer, range, oven, microwave oven, refrigerator, freezer, water heater, dishwasher, trash compactor, air conditioner, or other similar products under ~~Standard Industrial~~ North American Industry Classification System ~~C~~code ~~363~~ 33522.

"**Large appliance coating unit**" means a coating unit in which any protective, decorative, or functional coating is applied onto the surface of component metal parts (including, but not limited to, doors, cases, lids, panels, and interior parts) of large appliances.

20.3 Standards

20.3.1 Except as provided in 20.4.1 of this regulation, n~~N~~o owner or operator of a large appliance coating unit subject to 20.0 of this regulation shall cause or allow the application of any coating ~~on that unit with VOC content in excess of 0.34 kilograms per liter (kg/L) (2.8 pounds per gallon [lb/gal]) of coating, excluding water and exempt compounds, as applied~~ to large appliances unless:

20.3.1.1 The VOC content of the coating is less than or equal to the limits listed in Table 20-1 of this regulation, or

Table 20-1 Large Appliance 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

20.3.1.2 For a large appliance coating unit that applies multiple coatings, which are subject to the same numerical emission limitation in Table 20-1 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 20-1 of this regulation corresponding to the category of coating used, or

20.3.1.3 Control equipment is installed and operated that achieves an emission reduction efficiency in accordance with 20.5 of this regulation. The requirements of 20.3.2 of this regulation shall not apply to any large appliance coating unit that achieves an emission reduction efficiency of 95% or greater.

20.3.2 ~~As an alternative to compliance with the emission limit in 20.3.1 of this regulation, an owner or operator of a large appliance coating unit may meet the requirements of 20.4 or 20.5 of this regulation.~~ Except as provided in 20.3.1.3 and 20.4 of this regulation, no owner or operator of a large appliance coating unit subject to 20.0 of this regulation shall apply a coating to large appliances 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:

20.3.2.1 Electrostatic spray

20.3.2.2 Flow coating

20.3.2.3 Dip coating, including electrodeposition

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20.3.2.4 Roll coating

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

20.3.2.6 Hand application

20.3.2.7 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

20.4 ~~Daily-weighted average limitation. No owner or operator of a large appliance coating unit subject to 20.0 of this regulation shall apply, during any day, coatings on that unit whose daily-weighted average VOC content, calculated in accordance with the procedure specified in Appendix C of this regulation, exceeds the emission limit in 20.3.1 of this regulation.~~ Specific Exemptions

20.4.1 The requirements of 20.3.1 and 20.3.2 of this regulation do not apply for the following types of coatings:

20.4.1.1 Stencil coatings

20.4.1.2 Safety-indicating coatings

20.4.1.3 Solid film lubricants

20.4.1.4 Electric-insulating and thermal-conducting coatings

20.4.1.5 Coatings applied using hand-held aerosol can

20.4.1.6 Powder coatings

20.4.2 The requirements of 20.3.2 of this regulation do not apply to touch-up and repair coatings.

20.5 Control ~~d~~Devices

20.5.1 An owner or operator of a large appliance coating unit subject to 20.~~0~~3.1.3 of this regulation shall determine the emission reduction efficiency needed to comply and demonstrate compliance as follows: ~~may comply with 20.0 of this regulation by:~~

~~20.5.1.1 Installing and operating a capture system on that unit.~~

~~20.5.1.2 Installing and operating a control device on that unit.~~

20.5.1.~~3~~1 Determine~~ing~~ 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.~~0~~3 of **Appendix C** of this regulation for that day or 95%.

20.5.1.~~4~~2 Demonstrate~~ing~~ each day that the overall emission reduction efficiency achieved for that day, as determined in ~~3.0 of~~ **Appendix D** of this regulation, is greater than or equal to the overall emission reduction efficiency required for that day.

20.5.2 An owner or operator of a large appliance coating unit subject to 20.~~0~~3.1.3 of this regulation shall ensure that:

20.5.2.1 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 20.0 of this regulation through

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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.

20.5.2.2 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.

20.6 Test ~~m~~Methods. The test methods found in **Appendix A** through **Appendix D** of this regulation shall be used to determine compliance with 20.0 of this regulation.

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

20.6.2 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).

20.7 Compliance Certification, Recordkeeping and ~~r~~Reporting Requirements

20.7.1 An owner or operator of a large appliance coating unit ~~that is~~ exempt from the ~~emission limitations in~~requirements of 20.3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements in 4.2 of this regulation.

20.7.2 An owner or operator of a large appliance coating unit subject to 20.0 of this regulation and complying with 20.3.1.1 of this regulation by the use of ~~complying~~compliant coatings shall comply with the certification, recordkeeping, and reporting requirements in 4.3 of this regulation.

20.7.3 An owner or operator of a large appliance coating unit subject to 20.0 of this regulation and complying with 20.~~4~~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.

20.7.4 An owner or operator of a large appliance coating unit subject to 20.0 of this regulation and complying with 20.~~5~~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.

20.7.5 An owner or operator of a large appliance coating unit subject to 20.3.2 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.

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