DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF AIR AND WASTE MANAGEMENT

Statutory Authority: 7 Delaware Code, Chapter 60 (7 **Del.C.** Ch. 60)
7 **DE Admin. Code** 1124

FINAL

Secretary's Order No.: 2010-A-0011

1124, Control of Volatile Organic Compound Emissions: Section 2.0, "Definitions"; Section 12.0, "Surface Coating of Plastic Parts"; Section 19.0, "Coating of Metal Furniture"; Section 20.0, "Coating of Large Appliances"; and Section 22.0, "Coating of Miscellaneous Metal Parts

Date of Issuance: March 11, 2010
Effective Date of the Amendment: April 11, 2010

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") the following findings, reasons and conclusions are entered as an Order of the Secretary in the above-referenced rulemaking proceeding.

Background and Procedural History

This Order considers proposed regulation amendments to 7 **DE Admin. Code** 1124, **Control of Volatile Organic Compound Emissions:** Section 2.0, "Definitions"; Section 12.0, "Surface Coating of Plastic Parts"; Section 19.0, "Coating of Metal Furniture"; Section 20.0, "Coating of Large Appliances"; and Section 22.0, "Coating of Miscellaneous Metal Parts. The purpose of these proposed amendments is to conform to new Control Techniques Guidelines (CTG) issued by the U.S. Environmental Protection Agency (EPA).

The Department's Air Quality Management (AQM) Section of the Division of Air and Waste Management (DAWM) commenced the regulatory development process with Start Action Notice 2009-10 through 2009-13. The Department published the proposed regulatory amendments in the December 1, 2009 *Delaware Register of Regulations* and held a public hearing on January 5, 2010. The Department's presiding hearing officer, Lisa A. Vest, prepared a Hearing Officer's Report dated February 26, 2010 (Report). The Report recommends certain findings and the adoption of the proposed Amendments as attached to the Report as Appendix A.

Findings and Discussion

I find that the proposed Amendments are well-supported by the record developed by the Department, and adopt the Report to the extent it is consistent with this Order. The Department's experts in AQM developed the record and drafted the proposed Amendments. The Department received public comments, as noted in the Report, and considered and responded to all timely and relevant public comments in making its determination.

I find that the Department's experts in the AQM Section of the DAWM fully developed the record to support adoption of these Amendments. With the adoption of these regulatory amendments, Delaware will have the Department's regulations conform to EPA's regulations, as required by the Clean Air Act.

In conclusion, the following findings and conclusions are entered:

1.) The Department has jurisdiction under its statutory authority to issue an Order adopting these proposed Amendments as final;

2.) The Department provided adequate public notice of the proposed Amendments, and provided the public with an adequate opportunity to comment on the proposed Amendments, including at a public hearing;

3.) The Department held a public hearing on January 5, 2010 on the proposed Amendments in order to consider public comments before making any final decision, and fully considered and responded to all timely and relevant comments received from the regulated community concerning this matter;

4.) The Department's Hearing Officer's Report, including its recommended record and the recommended

Amendments as set forth in Appendix A, are adopted to provide additional reasons and findings for this Order;

5.) The recommended Amendments do not reflect any substantive changes from the proposed regulation Amendments as published in the December 1, 2009, *Delaware Register of Regulations*;

6.) The recommended Amendments should be adopted as final regulation Amendments because (1) Delaware will be enabled to conform to new CTG as issued by the EPA; (2) the Department's revisions to 7 **DE Admin. Code** 1124 will reduce the VOC contents of currently regulated coatings, regulate additional coating categories, require the use of coating application equipment that provides for high transfer efficiency, and require that clean-up solvent emissions be included in regulatory applicability determinations; and (3) the regulation amendments are well supported by documents in the record; and that

7.) The Department shall submit this Order approving the final regulation to the *Delaware Register of Regulations* for publication in its next available issue, and provide such other notice as the law and regulation require and the Department determines is appropriate.

Collin P. O'Mara, Secretary

1124 Control of Volatile Organic Compound Emissions

(Break in Continuity of Sections)

2.0 Definitions

~~01/11/2002~~ **[~~xx/xx/~~04/11/]**2010

For the purpose of this regulation, the following definitions apply:

"**Actual emissions**" means the quantity VOCs emitted from a source during a particular time period.

"**Adhesion primer**" means a coating that is applied to thermoplastic olefin (TPO) parts to promote adhesion of subsequent coatings. An adhesion primer is clearly identified as an adhesion primer or adhesion promoter on its accompanying material safety data sheet.

["Aerosol coating product" means a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant and in packaged in a disposable can for hand-held application, or for use in specialized equipment for ground traffic marking applications.

"Air-dried coating" means a coating that is cured at a temperature below 90^{O} C (194^{O} F).]

"**As applied**" means including any dilution solvents added before application of the coating.

["Baked coating" means a coating that is cured at a temperature at or above 90^{O} C (194^{O} F).]

"**Basecoat**" means a pigmented topcoat that is the first coat applied as part of a multistage topcoat system.

"**Bulk gasoline plant**" means a gasoline storage and distribution facility with an average daily throughput of 76,000 liters (L) (20,000 gallons [gal]) of gasoline or less on a monthly average.

"**Bulk gasoline terminal**" means a gasoline storage facility that receives gasoline from refineries, delivers gasoline to bulk gasoline plants or to commercial or retail accounts, and has a daily throughput of more than 76,000 L (20,000 gal) of gasoline on a monthly average.

"**Capture efficiency**" means the weight per unit time of VOC entering a capture system and delivered to a control device divided by the weight per unit time of total VOC generated by a source of VOC, expressed as a percentage.

"**Capture system**" means all equipment (including, but not limited to, hoods, ducts, fans, booths, ovens, dryers, etc.) that contains, collects, and transports an air pollutant to a control device.

"**Carbon absorber**" means an add-on control device that uses activated carbon to absorb VOCs from a gas stream.

"**Carbon adsorption system**" means a carbon adsorber with an inlet and outlet for exhaust gases and a system to regenerate the saturated adsorbent.

"**Clearcoat**" means a topcoat that contains no pigments or only transparent pigments and that is the final coat applied as part of a multistage topcoat system.

“**Coating**” means a material applied onto or impregnated into a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, paints, varnishes, sealants, adhesives, inks, maskants, and temporary protective coatings.

“**Coating unit**” means a series of one or more coating applicators and any associated drying area or oven wherein a coating is applied, dried, or cured. A coating unit ends at the point where the coating is dried or cured, or prior to any subsequent application of a different coating. It is not necessary to have an oven or a flash-off area in order to be included in this definition.

“**Continuous vapor control system**” means a vapor control system that treats vapors displaced from tanks during filling on a demand basis without intermediate accumulation.

“**Control device**” means equipment (such as an incinerator or carbon adsorber) used to reduce, by destruction or removal, the amount of air pollutant or pollutants in an air stream prior to discharge to the ambient air.

“**Control system**” means a combination of one or more capture system or systems and control device or devices working in concert to reduce discharges of pollutants to the ambient air.

“**Day**” means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

“**Destruction or removal efficiency**” means the amount of VOC destroyed or removed by a control device expressed as a percent of the total amount of VOC entering the device.

"**Dip coating**" means the application method of a coating material to a substrate by dipping the part into a tank of coating material.

“**Double block-and-bleed system**” means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

"**Electric-insulating and thermal-conducting coating**" means a coating that displays an electrical insulation of at least 1000 volts DC per mil on a flat test plate and an average thermal conductivity of at least 0.27 BTU per hour-foot-degree Fahrenheit.

"**Electrostatic spray**" means a method of applying a spray coating in which opposite electric charges are applied to the substrate and the coating. The coating is attracted to the substrate by the electrostatic potential between them.

“**Exempt compounds**” means any of the compounds listed in 2.0 of 7 **DE Admin. Code** 1101 - Definitions, "Volatile Organic Compounds," which have been determined to have negligible photochemical reactivity.

For determining compliance with emission limits, VOCs will be measured according to the procedures in Methods 25 and 25A of **Appendix A** of 40 CFR, Part 60, and the procedures and equations in §60.755. Where such a method also measures compounds with negligible photochemical reactivity, an owner or operator may exclude these negligibly-reactive compounds when determining compliance with an emission standard. However, the Department may require such owner or operator, as a precondition to excluding these compounds for purposes of determining compliance, to provide monitoring methods and monitoring results demonstrating, to the satisfaction of the Department, the amount of negligibly-reactive compounds in the sources emissions.

In addition to the procedures for requesting a satisfactory compliance determination, where the Department proposes to allow the use of a test method for excluding negligibly-reactive compounds that is different or not specified in the approved SIP, such change shall be submitted to the U.S. EPA for approval as part of a SIP revision.

“**External floating roof**” means a cover over an open-top storage tank consisting of a double deck or pontoon single deck that rests upon and is supported by the volatile organic liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

"**Extreme high-gloss coating**" means a coating which, when tested by ASTM International Method D-523, adopted in 1980, shows a reflectance of 75 or more on a 600 meter.

"**Extreme performance coating**" means a coating used on a metal surface where the coated surface is, in its intended use, subject to the following; (a) chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions: or (b) repeated exposure to

temperatures in excess of 250 0F; or (c) repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers of scouring agents.

“**Facility**” means all of the pollutant-emitting activities, excluding pollutant-emitting activities from mobile sources that are located on one or more contiguous or adjacent properties, and are under the control of the same person (or person under common control).

“**First attempt at repair**” means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

“**Flash-off area**” means the space between the coating application area and the oven.

"**Flow coating**" means the application of a coating material to a substrate by pouring the coating over the suspended part.

“**Gasoline tank truck**” means a delivery tank truck used at bulk gasoline plants, bulk gasoline terminals, or gasoline dispensing facilities that is loading or unloading gasoline or that has loaded or unloaded gasoline on the immediately previous load.

“**Gloss flattener**” means a low-gloss coating that is formulated to eliminate glare on the interior surfaces of a vehicle for safety purposes, as specified under the U.S. Department of Transportation Motor Vehicle Safety Standards.

"**Hand application**" means a method of applying coatings by non-mechanical hand-held equipment, including, but not limited to, paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags and sponges.

"**Heat resistant coating**" means a coating that must withstand a temperature of at least 400 0F during normal use.

“**Heavy-duty truck**” means any motor vehicle rated at greater than 3,864 kg (8,500 lb) gross weight designed primarily to transport property.

"**High-volume, low-pressure (HVLP) spray equipment**" means spray equipment that is used to apply coatings using a spray gun that operates less than or equal to 10 psig of atomized air pressure at the air cap.

“**Incinerator**” means a combustion apparatus in which solid, semisolid, liquid, or gaseous combustible wastes are ignited and burned and from which the solid and gaseous residues contain little or no combustible material.

“**Intermittent vapor control system**” means a vapor control system that employs an intermediate vapor holder to accumulate vapors displaced from tanks during filling. The control device treats the accumulated vapors only during automatically controlled cycles.

“**Internal Floating Roof**” means a cover or roof in a fixed-roof tank that rests upon or is floated upon, the liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and the tank shell.

“**Knife coating**” means the application of a coating material to a substrate by means of drawing the substrate beneath a knife that spreads the coating evenly over the full width of the substrate.

“**Leak**” means a VOC emission indicated by an instrument calibrated according to Method 21 of 40 CFR, Part 60, **Appendix A**, using zero air (less than 10 parts per million [ppm] of hydrocarbon in air) and a mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

“**Lease custody transfer**” means the transfer of produced crude oil or condensate, after processing or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

“**Liquid-mounted seal**” means a primary seal mounted in continuous contact with the liquid between the tank wall and the floating roof around the circumference of the tank.

“**Loading rack**” means an aggregation or combination of gasoline loading equipment arranged so that all loading outlets in the combination can be connected to a tank truck or trailer parked in a specified loading space.

“**Lower explosive limit**” (LEL) means the concentration of a compound in air below which a flame will not propagate if the mixture is ignited.

“**Maximum theoretical emissions**” means the quantity of VOC that theoretically could be emitted by a source without control devices based on the design capacity or maximum production capacity of the source and 8,760 hours of operation per year. The design capacity or maximum production capacity includes use of coatings and inks with the highest VOC content used in practice by the source for the two preceding years.

“**Maximum true vapor pressure**” means the equilibrium partial pressure exerted by a stored liquid at the temperature equal to:

1. for liquids stored above or below the ambient temperature, the highest calendar-month average of the liquid storage temperature, or

2. for liquids stored at the ambient temperature, the local maximum monthly average temperature as reported by the National Weather Service. This pressure shall be determined by one of the following:

i. In accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From External Floating Roof Tanks."

ii. By using standard reference texts.

iii. By ASTM D2879-83.

iv. By any other method approved by the Department as part of the State Implementation Plan (SIP) Revision.

"**Metallic coating**" means a coating which contains more than 5 grams of metal particles per liter of coating, as applied. Metal particles are pieces of a pure elemental metal or a combination of elemental metals.

"**Mold-seal coating**" means the initial coating applied to a new mold or a repaired mold to provide a smooth surface which, when coated with a mold release coating prevents products from sticking to the mold.

“**Multicomponent coating**” means a coating which is packaged in two or more parts, which parts are combined before application, and where a coreactant from one part of the coating chemically reacts, at ambient conditions, with a coreactant from another part of the coating.

"**One-component coating**" means a coating that is ready for application as it comes out of its container to form an acceptable dry film. A thinner, necessary to reduce the viscosity, is not considered a component.

“**Open-ended valve or line**” means any valve, except safety relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

“**Organic compound**” means any carbon-containing chemical compound excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

“**Oven**” means a chamber which is used to bake, cure, polymerize, or dry a coating.

“**Overall emission reduction efficiency**” means the weight per unit time of VOC removed or destroyed by a control device divided by the weight per unit time of VOC generated by a source, expressed as a percentage. The overall emission reduction efficiency can also be calculated as the product of the capture efficiency and the control device destruction or removal efficiency.

“**Owner or Operator**” means any person who owns, leases, controls, operates or supervises a facility, a source, or air pollution control or monitoring equipment.

“**Person**” means any individual, partnership, copartnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, or any other legal entity, or their legal representative, agent, or assigns.

“**Petroleum**” means the crude oil removed from the earth and the oils derived from tar sands, shale and coal.

“**Petroleum Liquid**” means petroleum condensate, and any finished or intermediate products manufactured in a petroleum refinery.

“**Plastisol**” means a coating made of a mixture of finely divided resin and a plasticizer. Plastisol is applied as a thick gel that solidifies when heated.

“**Press-Ready Ink**” means the ink, as applied to the substrate, after all solvents and diluents have been added.

“**Pressure release**” means the emission of materials resulting from system pressure being greater than set pressure of the pressure relief device.

"**Pretreatment coating**" means a coating which contains no more than 12% solids by weight, and at least 0.5% acid by weight, is used to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping.

“**Primer**” means any coating applied prior to the application of a topcoat or color coat for the purposes of surface preparation, corrosion resistance, adhesion, and color uniformity.

“**Process unit shutdown**” means a work practice or operational procedure that stops production from a process unit or part of a process unit. An unscheduled work practice or operational procedure that stops production from a process unit or part of a process unit for less than 24 hours is not a process unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping production are not process unit shutdowns.

“**Reid vapor pressure**” means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids, except liquified petroleum gases, as determined by ASTM D323-82.

“**Repaired**” means that equipment is adjusted, or otherwise altered, in order to eliminate a leak as indicated by one of the following: an instrument reading of 10,000 ppm or greater, indication of liquids dripping, or indication by a sensor that a seal or barrier fluid system has failed.

"**Repair coating**" means a coating used to re-coat portions of a previously coated product which has sustained mechanical damage to the coating following normal coating operations.

“**Roll coating**” means the application of a coating material to a moving substrate by means of hard rubber, elastomeric, or metal rolls.

“**Rotogravure coating**” means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is recessed relative to the non-image area, and the coating material is picked up in these recessed areas and is transferred to the substrate.

"**Safety-indicating coatings**" means a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

“**Shutdown**” means the cessation of operation of a facility or of its emission control or emission monitoring equipment.

"**Solar-absorbent coating**" means a coating which has as its prime purpose the absorption of solar radiation.

"**Solid-film lubricant**" means a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetraflouroethylene (PTFE) or other solids that act as a dry lubricant between faying surfaces.

“**Source**” means any building, structure, equipment (excluding mobile equipment temporarily in place), or installation that directly or indirectly releases or discharges, or has the potential to release or discharge, VOCs into the atmosphere.

“**Stage I Vapor Recovery System**” means the control of gasoline vapor from any delivery vessel into any stationary storage vessel, where the vapor displaced by the liquid gasoline is returned to the delivery vessel and transported to the refinery.

“**Stage II Vapor Recovery System**” means a system that controls the emissions of gasoline vapor at the vehicle fill-pipe, where the vapor is captured and returned to a vapor-tight storage tank, or is destroyed; which achieves an overall control efficiency of at least 95%.

“**Standard conditions**” means a temperature of 20^{o}C (68^{o}F) and pressure of 760 mm Hg (29.92 in. Hg).

“**Startup**” means the setting in operation of a source or of its emission control or emission monitoring equipment.

"**Stencil coating**" means a coating which is rolled or brushed onto a template or stamp in order to add identifying letters, symbols or numbers.

"**Storage Vessel**" means each tank, reservoir or container used for the storage of Volatile Organic Liquids, but does not include:

1. Frames, housing, auxiliary supports or other components that are not directly involved in the containment of liquids or vapors; or
2. Subsurface caverns or porous rock reservoirs.

"**Submerged fill**" means the method of filling a delivery vessel or storage vessel where product enters within 150 millimeters (mm) (5.9 inches [in.]) of the bottom of the delivery or storage vessel. Bottom filling of delivery and storage vessels is included in this definition.

"**Substrate**" means the surface onto which a coating is applied or into which a coating is impregnated.

"**Throughput**" means the amount of gasoline dispensed at a gasoline dispensing facility during a calendar month after November 15, 1990.

"**Touch-up coating**" means a coating used to cover minor coating imperfections appearing after the main coating operation.

"**Transfer efficiency**" means the ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage.

"**Two-component paint**" means a coating that is manufactured in two components that are mixed shortly before use. When mixed, the two liquids rapidly crosslink to form a solid composition.

"**Vacuum-metalizing coating**" means the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film. Vacuum metalizing/physical vapor deposition (PVD) is the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber.

"**Vapor collection system**" means all piping, seals, hoses, connections, pressure-vacuum vents, and other equipment between the gasoline tank truck and the vapor processing unit or the storage tanks and vapor holder.

"**Vapor control system**" means a system that limits or prevents release to the atmosphere of organic compounds in the vapors displaced from a tank during the transfer of gasoline.

"**Vapor-mounted seal**" means a primary seal mounted so there is an annular vapor space underneath the seal. The annular vapor space is bounded by the bottom of the primary seal, the tank wall, the liquid surface and the floating roof.

"**Vapor recovery system**" means a vapor-gathering system capable of collecting VOC vapors and gases emitted during the operation of any transfer, storage, or process equipment.

"**Vapor-tight**" means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100% of the LEL when measured with a combustible gas detector, calibrated with propane, at a distance of 2.54 centimeters (cm) (1 inch)from the source.

"**Vapor-tight gasoline tank truck**" means a gasoline tank truck that has demonstrated within the 12 preceding months that its product delivery tank will sustain a pressure change of not more than 75 mm (3.0 in.) of water within five minutes (min) after it is pressurized to 450 mm (18 in.) of water; or when evacuated to 150 mm (5.9 in.) of water, the same tank will sustain a pressure change of not more than 75 mm (3.0 in.) of water within 5 min. This capability is to be demonstrated using the test procedures specified in Method 27 of **Appendix A** of 40 CFR, Part 60 (July 1, 1992).

"**Volatile Organic Liquid**" (VOL) means any organic liquid which can emit any Volatile Organic Compound into the atmosphere (see definition of "Volatile Organic Compound" of this regulation).

"**Volatile Organic Compound**" (VOC) means any carbon-containing compound excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any organic compounds other than those defined as "Exempt Compounds", which have been determined to have negligible photochemical reactivity (see definition of "Exempt Compounds" of this regulation). In addition to the

procedures for requesting a satisfactory compliance demonstration, where the Department proposes to allow the use of a test method for excluding negligibly reactive compounds that is different from or not specified in the approved SIP, such change shall be submitted to the Environmental Protection Agency (U.S. EPA) for approval as part of a SIP Revision.

"**Web coating line**" means all of the coating applicator or applicators, drying area or areas, or oven or ovens, located between an unwind station and a rewind station, that are used to apply coating onto a continuous strip of substrate (the web). A web coating line need not have a drying oven.

(Break in Continuity of Sections)

12.0 Surface Coating of Plastic Parts.

~~11/29/1994~~ **[~~xx/xx/~~04/11/]**2010

12.1 Applicability

12.1.1 The provisions of 12.0 of this regulation apply to any ~~facility that coats~~ plastic ~~components for the following uses:~~ parts or products coating unit. Except as provided in 12.1.2 of this regulation, every owner or operator of any plastic parts or products coating unit shall comply with the provisions of 12.0 of this regulation on and after **[~~xx/xx/~~04/11/]**/2010.

~~12.1.1.1 Automotive or other transportation equipment including interior or exterior parts for automobiles, trucks (light , medium , or heavy duty), large and small farm machinery, motorcycles, construction equipment, vans, buses, lawnmowers, and other mobile, motorized mobilized equipment.~~

~~12.1.1.2 Housing and exterior parts for business and commercial machines including, but not limited to, computers, copy machines, typewriters, medical equipment, and entertainment equipment.~~

12.1.2 ~~The provisions of 12.0 of this regulation apply to in-house coating processes conducted at original equipment manufacturer (OEM) sites, as well as to coating processes conducted by contractors specializing in molding and coating plastic parts, and by job shops performing OEM coating only. The provisions of 12.0 of this regulation apply to coating operations that include coating application (e.g., spraying, dipping, and flow coating), flash-off areas, and curing ovens.~~ Transition period for existing permitted sources. Every owner or operator of any plastic parts or products coating unit that has a permit issued pursuant to 7 **DE Admin. Code** 1102 or 1130 containing all applicable conditions of 12.0 of this regulation, as that regulation existed on November 29, 1994, shall comply with those permit conditions until December 31, 2010. On and after January 1, 2011, every such owner or operator of any plastic parts or products coating unit shall comply with the provisions of 12.0 of this regulation.

12.1.3 If a metal component ~~that is~~ permanently attached to a plastic part is coated in a spray booth or on a process line where plastic parts or products are being coated, the requirements of 12.0 of this regulation ~~applies~~ apply to the coating of both the plastic part and the attached metal component.

12.1.4 The provisions of 12.0 of this regulation do not apply to the following ~~operations~~ plastic parts or products:

12.1.4.1 ~~Coating of interior and exterior parts of aircraft.~~ Parts covered by other sections of this regulation.

12.1.4.2 ~~Coating of exterior~~ Exterior parts of completely assembled marine vessels.

12.1.4.3 ~~Refinishing of aftermarket automobiles, trucks, and other transportation equipment.~~

~~12.1.4.4~~ ~~Coating of internal~~ Internal electrical ~~components~~ parts of business and commercial machines, including, but not limited to, medical and entertainment equipment.

~~12.1.4.5 Coating of a metal component in a spray booth or on a process line that is permanently attached to a plastic part where both the attached metal component and the plastic part are coated subject to the requirements of 13.0 of this regulation (Auto and Light Duty Truck Coating Operations) or to 22.0 of this regulation (Coating of Miscellaneous Metal Parts).~~

12.1.5 Except as provided in 12.1.6 of this regulation, the ~~The requirements in 12.3~~ provisions of 12.0 of this regulation do not apply to plastic parts or products coating facilities whose ~~plant-wide~~ actual emissions, without control devices, from all plastic parts or products coating ~~operations~~ units, including emissions from related cleaning activities, are less than 6.8 kilograms (kg) (15 pounds [lb]) of volatile organic compounds (VOCs) per day.

12.1.6 An owner operator of a facility whose emissions are below the applicability threshold in 12.1.5 of this regulation shall comply with the certification, recordkeeping, and reporting requirements ~~listed in 4.2~~ of 12.7.1 of this regulation.

~~12.1.7 Existing sources affected by 12.0 of this regulation shall comply with the provisions of 12.0 of this regulation as soon as practicable, but no later than April 1, 1996. New, modified, or reconstructed sources affected by 12.0 of this regulation shall comply with the provisions of 12.0 of this regulation upon startup.~~

12.1.~~8~~7 Any facility that becomes or is currently subject to the provisions of 12.0 of this regulation by exceeding the applicability threshold in 12.1.5 of this regulation shall remain subject to these provisions even if its emissions later fall below the applicability threshold.

12.1.~~9~~8 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 its throughput or emissions later fall below the applicability threshold.

12.2 Definitions. As used in 12.0 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.

~~"**Add-on control device**" means an air pollution control device, such as a carbon adsorber or an incinerator, which reduces the pollution in an exhaust gas. The control device usually does not affect the process being controlled and is thus considered to be an "add-on" technology, as opposed to a reduction in pollution through an alteration to the basic process.~~

~~"**Adhesion promoter (primer)**" means a coating that is applied to thermoplastic olefin (TPO) parts to promote adhesion of subsequent coatings.~~

~~"**Affected facility**" means any apparatus, subject to a standard, that is involved in the coating of plastic parts.~~

~~"**Aftermarket automobile**" means a vehicle that has been purchased from the original equipment manufacturer.~~

"**Basecoat/clearcoat**" means a two-step topcoat system in which a highly pigmented, often metallic, basecoat is followed by a clearcoat, resulting in a finish with high-gloss characteristics. ~~It is often used on automotive plastic parts.~~

"**Black coating**" means a coating which meets a maximum lightness of 23 units, and has a saturation of less than 2.8, where saturation equals the square root of $A^2 + B^2$. These criteria are based on Cielab color space, 0/45geometry. For spherical geometry, specular included, the maximum lightness is 33 units.

"**Business machin**e" means a device that uses electronic or mechanical methods to process information, perform calculations, print or copy information or convert sound into electrical impulses for transmission, including devices listed in standard industrial classification numbers 3572, 3573, 3574,3579, and 3661 and photocopy machines, a subcategory of standard industrial classification number 3861.

"**Commercial machine**" means a device that is used in commercial activities, including, but not limited to, medical, laboratory and entertainment equipment.

"**Electric dissipating coating**" means a coating that rapidly dissipates a high-voltage electric charge.

"**Electrostatic preparation coating**" means a coating that is applied to a plastic part solely to provide conductivity for the subsequent application of a prime, a topcoat, or other coating through the use of electrostatic application methods. An electrostatic prep coat is clearly identified as an electrostatic prep coat on its accompanying material safety data sheet.

"**EMI/RFI Electromagnetic interference/radio frequency interference shielding coating**" means a coating that is used in a plastic business or commercial machine housing to attenuate electromagnetic and radio frequency interference signals that would otherwise pass through the plastic housing.

"**Flexible ~~coating~~ primer**" means ~~a paint that can withstand dimensional changes~~ any coating that is required to comply with engineering specifications for impact resistance, mandrel bend, or elongation as defined by the original equipment manufacturer.

"**Fog coat**" means a coating that is applied to a plastic part for the purpose of color matching without masking a molded-in texture. A fog coat shall not be applied at a thickness of more than 0.5 mils of coating solids.

"**Gloss reducer**" means a coating that is applied to a plastic part solely to reduce the shine of the part. A gloss reducer shall not be applied at a thickness of more than 0.5 mils of coating solids.

"**High-bake coating**" means a coating that is designed to cure at temperatures above 90 degrees Celsius (°C) (194 degrees Fahrenheit [°F]).

"**Higher-solids coating**" means a coating that contains greater amounts of pigment and binder than a conventional coating. Solids are the non-solvent, non-water ingredients in the coating. A higher-solids coating usually contains more than 60% solids by volume.

"**Low-bake coating**" means a coating that is designed to cure at temperatures lower than 90°C (194°F).

"**Mask coating**" means thin film coating applied through a template to coat a small portion of a substrate.

"**Military specification coating**" means a coating which has a formulation approved by a United States military agency for use on military equipment.

"**Nonflexible ~~coating~~ primer**" means a paint that cannot withstand dimensional changes.

~~"**Overspray**" means the solids portion of a coating which, when sprayed, fails to adhere to the part being coated. The applied solids plus the overspray solids equal the total coating solids delivered by the spray application system.~~

"**Optical coating**" means a coating applied to an optical lens.

"**Plastic part or product**" means a piece made from a substance that has been formed from resin through the application of pressure or heat. Plastic parts or products include automotive or other transportation equipment including, but not limited to, parts or products for automobiles, trucks (light-, medium and heavy-duty), large and small farm machinery, motorcycles, recreational vehicles, construction equipment, vans, buses, lawnmowers and other motorized mobile equipment; business and commercial machines, including, but not limited to, computers, copy machines, typewriters, medical equipment, laboratory equipment and entertainment equipment; and commercial and industrial machinery, sporting goods, toys, lawn and garden equipment and other industrial and household products.

"**Red coating**" means a coating which meets all of the following criteria: yellow limit, the hue of hostaperm scarlet; blue limit, the hue of monastral red-violet, lightness limit for metallics, 35% aluminum flake; lightness limit for solids, 50% titanium dioxide white; solid reds, hue angle of -11 to 38 degrees and maximum lightness of 23 to 45 units; metallic reds, hue angle of -16 to 35 degrees and maximum lightness of 28 to 45 units. These criteria are based on Cielab color space, 0/45 geometry. For spherical geometry, specula included, the upper limit is 49 units. The maximum lightness varies as the hue moves from violet to orange. This is a natural consequence of the strength of the colorants, and real colors show this effect.

"**Solids content**" means the non-solvent, non-water ingredients in the coating, which consist of pigments and binders, that do not evaporate and have the potential to form a cured (dry) film. The solids content can be expressed in terms of volume percent or weight percent.

~~"**Specialty coating**" means a coating that is used for unusual job performance requirements, usually in small amounts. These products include but are not limited to adhesion primers, resist coatings, soft coatings, reflective coatings, electrostatic prep coatings, headlamp lens coatings, ink pad printing~~

~~coatings, stencil coatings, texture coatings (automotive), vacuum metalizing coatings, and gloss flatteners.~~

["Specialty coating" means a coating that is used for unusual job performance requirements, usually in small amounts. These products include but are not limited to adhesion primers, resist coatings, soft coatings, reflective coatings, electrostatic prep coatings, headlamp lens coatings, ink pad printing coatings, stencil coatings, texture coatings (automotive), vacuum metalizing coatings, and gloss flatteners.]

"**Texture coat**" means a coating that is applied to a plastic part which, in its finished form, consists of discrete raised spots of the coating.

"**Translucent coating**" means a coating which contains binders and pigment, and is formulated to form a colored, but not opaque, film.

~~"**Two-component paint**" means a coating that is manufactured in two components that are mixed shortly before use. When mixed, the two liquids rapidly crosslink to form a solid composition.~~

~~"**Waterborne coating**" means a coating that contains greater than five weight % water in its volatile fraction.~~

12.3 Standards

~~12.3.1 Automotive/Transportation Sector. The VOC content of any automotive/transportation plastic parts surface coating, as applied, shall not exceed the applicable limitations specified in Table 12-1 of this regulation.~~

~~12.3.2 Business Machine Sector. The VOC content of any business machine parts surface coating, as applied, shall not exceed the applicable limitations specified in Table 12-2 of this regulation.~~

~~12.3.3 As an alternative to compliance with the emission limits in 12.3.1 and 12.3.2 of this regulation, an owner or operator may meet the requirements of 12.4 or 12.5 of this regulation.~~

~~TABLE 12-1. VOC CONTROL LEVELS FOR AUTOMOTIVE/TRANSPORTATION COATINGS~~

~~Coating Category~~	~~Control Level~~ [a]	
	~~(lb VOC/gal)~~	~~(kg VOC/L)~~
~~I. Auto Interiors~~		
~~1) High-Bake Colorcoats~~	~~4.1~~	~~0.49~~
~~2) High-Bake Primers~~	~~3.8~~	~~0.46~~
~~3) Low-Bake Colorcoats~~	~~3.2~~	~~0.38~~
~~4) Low-Bake Primers~~	~~3.5~~	~~0.42~~
~~II. Auto Exteriors (Flexible and Non-Flexible)~~		
~~1) High-Bake Coatings~~		
~~a) Colorcoats~~	~~4.6~~	~~0.55~~
~~b) Clearcoats~~	~~4.3~~	~~0.52~~
~~c) Primers~~	~~5.0~~	~~0.60~~
~~d) Primers-Non-Flexible~~	~~4.5~~	~~0.54~~
~~2) Low-Bake Coatings~~		
~~a) Primers~~	~~5.5~~	~~0.66~~
~~b) Red and Black Colorcoats~~	~~5.6~~	~~0.67~~
~~c) Colorcoats - All Other Colors~~	~~5.1~~	~~0.61~~
~~d) Clearcoats~~	~~4.5~~	~~0.54~~

III. Auto Specialty		
1) Group (A) Coatings [b]	5.5	0.66
2) Group (B) Coatings [c]	5.9	0.71
3) Group (C) Coatings [d]	6.4	0.77
4) Group (D) Coatings [e]	6.8	0.81
5) Headlamp Lens Coatings	7.4	0.89

[a] The VOC content values are expressed in units of mass of VOC (pounds [lb] or kilograms [kg]) per volume of coating (gallons [gal] or liters [L]), excluding water and exempt compounds, as applied.

[b] Group (A) coatings consist of Vacuum Metalizing Basecoats and Texture Coatings.

[c] Group (B) coatings consist of Black and Reflective Argent Coatings, Soft Specialty Coatings, and Air Bag Cover Coatings.

[d] Group (C) coatings consist of Gloss Flatteners, Vacuum Metalizing Topcoats, and Texture Topcoat.

[e] Group (D) coatings consist of Stencil Coatings, Adhesion Primers, Ink Pad Printing Coatings, Electrostatic Prep Coats, and Resist Coatings.

TABLE 12-2. VOC CONTROL LEVELS FOR BUSINESS MACHINE COATINGS

Coating Category	Control Level [a]	
	(lb VOC/gal)	(kg VOC/L)
I. Primers	1.2	0.14
II. Clearcoats	2.3	0.28
III. Colorcoats/ Texture coats	2.3	0.28
IV. EMI/RFI Coatings	4.0	0.48
V. Specialty Coatings		
1) Soft Coatings	4.3	0.52
2) Plating Resist Coatings	5.9	0.71
3) Plating Sensitizer Coatings	7.1	0.85

[a] The VOC content values are expressed in units of mass of VOC (pounds [lb] or kilograms [kg]) per volume of coating (gallons [gal] or liters [L]), excluding water and exempt compounds, as applied.

12.3.1 Except as provided in 12.4 of this regulation, no owner or operator of a plastic parts or products coating unit subject to 12.0 of this regulation shall cause or allow the application of any coating to plastic parts or products unless:

12.3.1.1 The VOC content of the coating is less than or equal to the limits listed in Table 12-1 of this regulation, or

12.3.1.2 For a plastic parts or products coating unit that applies multiple coatings, which are subject to the same numerical emission limitation in Table 12-1 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 12-1 of this regulation corresponding to the category of coating used, or

12.3.1.3 Control equipment is installed and operated that achieves an emission reduction efficiency in accordance with 12.5 of this regulation. The requirements of 12.3.2 shall not apply to any plastic parts or products coating unit that achieves an emission reduction efficiency of 95% or greater.

12.3.2 Except as provided in 12.3.1.3 and 12.4 of this regulation, no owner or operator of a plastic parts or products coating unit subject to 12.0 of this regulation shall apply a coating to plastic parts or products unless the coating is applied with equipment properly operated and maintained according to the manufacturer's suggested guidelines and using one or more of the following coating application methods:

12.3.2.1 Electrostatic spray

12.3.2.2 Flow coating

12.3.2.3 Dip coating, including electrodeposition

12.3.2.4 Roll coating

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

12.3.2.6 Hand application

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

Table 12-1 Plastic Parts Coating VOC Content Limits

Table 12-1 coating VOC content limits are expressed as mass (kilogram [kg] or pound [lb]) per volume (liter [l] or gallon [gal]) of coating less water and exempt compounds, as applied.

Coating Category	kg VOC/l coating	lb VOC/gal coating
General *		
One component coating	0.28	2.3
Multi component coating	0.42	3.5
Electric dissipating coatings and shock-free Coatings	0.36	3.0
Extreme performance	0.42 (2pack)	3.5 (2pack)
Metallic	0.42	3.5
Military specification	0.34 (1pack)	2.8 (1pack)
	0.42 (2pack)	3.5 (2pack)
Mold-seal	0.76	6.3
Multicolored coatings	0.68	5.7
Optical coatings	0.80	6.7
Vacuum-metalizing	0.80	6.7
Business Machine Parts		
Primers	0.14	1.2
Topcoat	0.28	2.3
Texture coat	0.28	2.3
Fog coat	0.26	2.2
Touchup and repair	0.28	2.3
Clearcoats	0.28	2.3
EMI/RFI Coatings	0.48	4.0
Soft Coatings	0.52	4.3
Plating Resist Coatings	0.71	5.9
Plating Sensitizer Coatings	0.85	7.1

Automotive/Transportation Parts [*~~(Note: for red, yellow, and black automotive coatings, except touch up and repair coatings, the allowable limit is determined by multiplying the appropriate limit in this table by 1.15)~~*]		
High bake coatings		
Flexible primer	**[~~0.54~~ 0.46]**	**[~~4.5~~ 3.8]**
Non-flexible primer	0.42	3.5
Base coats	0.52	4.3
Clear coat	0.48	4.0
Non-basecoat/clear coat	0.52	4.3
[Interior colorcoat]	**[0.49]**	**[4.1]**
[Exterior colorcoat]	**[0.55]**	**[4.6]**
Low bake/air dried coatings – exterior		
Primers	0.58	4.8
Basecoat	0.60	5.0
Clearcoats	0.54	4.5
Non-basecoat/clearcoat	0.60	5.0
[Red and black colorcoats]	**[0.67]**	**[5.6]**
[All other colorcoats]	**[0.61]**	**[5.1]**
Low bake/air dried coatings – interior primers	0.42	3.5
[colorcoats]	**[0.38]**	**[3.2]**
Touchup and Repair coatings	0.62	5.2
[Auto Specialty]		
[Vacuum metalizing basecoats]	**[0.66]**	**[5.5]**
[Texture coatings]	**[0.66]**	**[5.5]**
[Reflective argent coatings]	**[0.71]**	**[5.9]**
[Soft specialty coatings]	**[0.71]**	**[5.9]**
[Air bag cover coatings]	**[0.71]**	**[5.9]**
[Gloss Flatteners]	**[0.77]**	**[6.4]**
[Vacuum metalizing topcoats]	**[0.77]**	**[6.4]**
[Texture topcoats]	**[0.77]**	**[6.4]**
[Stencil Coatings]	**[0.81]**	**[6.8]**
[Adhesion primers]	**[0.81]**	**[6.8]**
[Ink pad printing coatings]	**[0.81]**	**[6.8]**
[Electrostatice prep coats]	**[0.81]**	**[6.8]**
[Resist coatings]	**[0.81]**	**[6.8]**
[Headlamp lens coatings]	**[0.89]**	**[7.4]**

* General refers to those parts or products which are not Business Machine Parts or Automotive/ Transportation Parts.

12.4 ~~Daily Weighted Average Limitation. An owner or operator of a plastic parts coating operation in which multiple coatings are applied, all of which are subject to the same numerical emission limits listed in 12.3.1 or 12.3.2 of this regulation, shall not apply, during the same day, coatings on any operation whose daily weighted average VOC content, calculated in accordance with the procedure specified in **Appendix C** of this regulation, exceeds the coating VOC content limit for the corresponding coating category.~~ Specific Exemptions

12.4.1 The requirements of 12.3.1 of this regulation shall not apply to the following coatings and coating operations related to general plastic parts and products:

12.4.1.1 Touch-up and repair coatings,

12.4.1.2 Stencil coatings,

12.4.1.3 Clear or translucent coatings,

12.4.1.4 Coatings applied at a paint manufacturing facility while conducting performance tests on the coatings,

12.4.1.5 Any individual coating category used in volumes less than 50 gallons in any one year, if substitute compliant coatings are not available, provided that the total usage of all such coatings does not exceed 200 gallons per year, per facility,

12.4.1.6 Reflective coating applied to highway cones,

12.4.1.7 Mask coatings that are less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches,

12.4.1.8 EMI/RFI shielding coatings, and

12.4.1.9 Heparin-benzalkonium chloride (HBAC)-containing coatings applied to medical devices, provided that the total usage of all such coatings does not exceed 100 gallons per year, per facility.

[~~12.4.2 The requirements of 12.3.1 of this regulation shall not apply to the following coatings and coating operations related to automotive/transportation and business machine plastic parts and products:~~

~~12.4.2.1 Texture coatings,~~

~~12.4.2.2 Vacuum metalizing coatings,~~

~~12.4.2.3 Gloss reducers,~~

~~12.4.2.4 Texture topcoats,~~

~~12.4.2.5 Adhesion primers,~~

~~12.4.2.6 Electrostatic preparation coatings,~~

~~12.4.2.7 Resist coatings, and~~

~~12.4.2.8 Stencil coatings.~~]

12.4.**[~~3~~2]**The requirements of 12.3.2 shall not apply, for general plastic parts and products coatings, to air brush operations using 5-gallons or less per year of coating.

12.4.**[~~4~~3]**The requirements of 12.3.1 and 12.3.2 of this regulation shall not apply to the following types of coatings:

12.4.**[~~4~~3]**.1 **[~~Coatings applied using hand-held aerosol cans~~ Aerosol coating product,]** and

12.4.**[~~4~~3]**.2 Powder coatings.

12.5 Control Devices

12.5.1 An owner or operator of a plastic part~~s~~ or products coating ~~operation~~ unit subject to ~~12.0~~ 12.3.1.3 of this regulation ~~may comply with 12.0 of this regulation by doing all of the following~~ shall determine the emission reduction efficiency needed to comply and demonstrate compliance as follows:

~~12.5.1.1 Installing and operating a capture system on that operation.~~

~~12.5.1.2 Installing and operating a control device on that operation.~~

12.5.1.~~3~~1 ~~Determining~~ Determine for each day the overall emission reduction efficiency need~~ed~~ 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%.

12.5.1.~~4~~2 ~~Demonstrating~~ Demonstrate each day that the overall emission reduction efficiency achieved for that day, as determined in **Appendix ~~C~~D** of this regulation, is greater than or equal to the overall emission reduction efficiency required for that day.

12.5.2 An owner or operator of a plastic parts or products coating ~~operation~~ unit subject to ~~12.0~~ 12.3.1.3 of this regulation shall ensure that:

12.5.2.1 A capture system and a control device are operated at all times the ~~coating operation~~ unit is in ~~use~~ operation, and ~~that~~ the owner or operator demonstrates compliance with 12.0 of this regulation ~~is demonstrated~~ through ~~the use of~~ 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.

12.5.2.2 The control device is equipped with the applicable monitoring equipment specified in 2.0 of **Appendix D** of this regulation, and ~~that~~ the monitoring equipment is installed, calibrated, operated, and maintained according to the vendor's specifications at all times the control device is in use.

12.6 Test Methods. The test methods found in **Appendices A** through ~~**C**~~**D** of this regulation shall be used to determine compliance with ~~12.3.1 and 12.3.2~~ 12.0 of this regulation.

12.6.1 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).

12.7 Compliance Certification, Recordkeeping, and Reporting Requirements.

12.7.1 An owner or operator of a plastic parts or products ~~surface~~ coating ~~operation~~ unit ~~that is~~ exempt from the emission limits listed in 12.3 ~~12.3.1 and 12.3.2~~ of this regulation shall comply with the certification, recordkeeping, and reporting requirements listed in 4.2 of this regulation.

12.7.2 An owner or operator of a plastic parts ~~surface~~ or products coating ~~operation~~ unit ~~that is~~ subject to 12.0 of this regulation and ~~that is~~ complying with 12.3.1 ~~and 12.3.2~~ of this regulation ~~through~~ by the use of compliant coatings shall comply with the certification, recordkeeping, and reporting requirements ~~listed~~ in 4.3 of this regulation.

12.7.3 An owner or operator of a plastic parts ~~surface~~ or products coating ~~operation~~ unit ~~that is~~ subject to 12.0 of this regulation and ~~that is~~ complying with 12.3.1 ~~and 12.3.2~~ of this regulation ~~through~~ by the use of daily-weighted averaging shall comply with the certification, recordkeeping, and reporting requirements ~~listed~~ in 4.4 of this regulation.

12.7.4 An owner or operator of a plastic parts ~~surface~~ or products coating ~~operation~~ unit ~~that is~~ subject to 12.0 of this regulation and ~~that is~~ complying with 12.3.1 ~~and 12.3.2~~ of this regulation ~~through~~ by the use of control devices shall comply with the certification, reporting, and recordkeeping requirements listed in 4.5 of this regulation.

12.7.5 An owner or operator of a plastic parts coating unit subject to 12.3.2 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.

(Break in Continuity of Sections)

19.0 Coating of Metal Furniture

~~01/11/1993~~ **[~~xx/xx/~~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 [insert effective date].

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.~~2~~3 Except as provided in 19.1.4 of this regulation, the ~~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.~~3~~4 An owner or operator of a facility whose emissions are below the applicability threshold in 19.1.~~2~~3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements of 19.7.1 of this regulation.

19.1.~~4~~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.~~2~~3 of this regulation ~~will~~ shall remain subject to these provisions, even if ~~its~~ emissions later fall below the applicability threshold.

19.1.5 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.

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. ~~This definition shall not apply to the coating of miscellaneous metal parts or products pursuant to 22.0 of this regulation.~~

"**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, n~~N~~o 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 ~~on that unit with VOC content in excess of 0.36 kilograms per liter (kg/L) (3.0 pounds per gallon [lb/gal]) of coating, excluding water and exempt compounds, as applied~~ 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.

	Baked		**Air Dried**	
Coating Category	**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 ~~As an alternative to compliance with the emission limit in 19.3.1 of this regulation, an owner or operator of a metal furniture coating unit may meet the requirements of 19.4 or 19.5 of this regulation.~~ 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 ~~Daily weighted average limitation. No owner or operator of a metal furniture coating unit subject to 19.0 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 19.3.1 of this regulation.~~ 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 **[~~Coatings applied using hand-held aerosol cans~~ 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 ~~d~~Devices

19.5.1 An owner or operator of a metal furniture coating unit subject to 19.~~0~~3.1.3 of this regulation ~~may comply with 19.0 of this regulation by~~ shall determine the emission reduction efficiency needed to comply and demonstrate compliance as follows:

~~19.5.1.1 Installing and operating a capture system on that unit.~~

~~19.5.1.2 Installing and operating a control device on that unit.~~

19.5.1.~~3~~1 ~~Determining~~ 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.~~0~~3 of **Appendix C** of this regulation for that day or 95%.

19.5.1.~~4~~2 ~~Determining~~ Determine 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.

19.5.2 An owner or operator of a metal furniture coating unit subject to 19.~~0~~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 ~~m~~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 ~~r~~Reporting Requirements

19.7.1 An owner or operator of a metal furniture coating unit ~~that is~~ exempt from the ~~emission limitations in~~ 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 ~~complying~~ 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.~~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.

19.7.4 An owner or operator of a metal furniture coating unit subject to 19.0 of this regulation and complying with 19.~~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.

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.

20.0 Coating of Large Appliances

~~01/11/1993~~ **[~~xx/xx/~~04/11/]**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]~~ 04/11/2010]**.

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.

	Baked		**Air Dried**	
Coating Category	**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 subject to 20.0 of this regulation 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

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~~ Aerosol coating product]**

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 ~~may comply with 20.0 of this regulation by~~ shall determine the emission reduction efficiency needed to comply and demonstrate compliance as follows:

~~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 ~~Determining~~ 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.~~0~~3 of **Appendix C** of this regulation for that day or 95%.

20.5.1.~~4~~2 Demonstrating Demonstrate 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 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

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~~ compliance 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.

(Break in Continuity of Sections)

22.0 Coating of Miscellaneous Metal Parts

~~01/11/1993~~ **[~~xx/xx/~~04/11/]**2010

22.1 Applicability

22.1.1 The provisions of 22.0 of this regulation apply to any miscellaneous metal parts and products coating unit. Except as provided in 22.1.2 of this regulation, every owner or operator of any miscellaneous metal parts and products coating unit shall comply with the provisions of 22.0 of this regulation on and after **[~~xx/xx/~~04/11/]**2010.

22.1.2 ~~The provisions of 22.0 of this regulation do not apply to the coating of the following metal parts and products that are covered by other sections of this regulation:~~ Transition period for existing permitted sources. Every owner or operator of any miscellaneous metal parts and products coating unit that has a permit issued pursuant to 7 **DE Admin. Code** 1102 or 1130 containing all applicable conditions of 22.0 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 miscellaneous metal parts and products coating unit shall comply with the provisions of 22.0 of this regulation.

~~22.1.2.1 Automobiles and light-duty trucks.~~

~~22.1.2.2 Metal cans.~~

~~22.1.2.3 Flat metal sheets and strips in the form of rolls or coils.~~

~~22.1.2.4 Magnet wire for use in electrical machinery.~~

~~22.1.2.5 Metal furniture.~~

~~22.1.2.6 Large appliances.~~

~~22.1.2.7 Heavy-duty trucks that use electrode position (EDP) to apply prime coat, which are covered under 13.3.4, 13.6 and 13.9 of this regulation.~~

22.1.3 The provisions of 22.0 of this regulation do~~es~~ not apply to the following miscellaneous metal parts and products:

~~22.1.3.1 Exterior of completely assembled aircraft.~~

~~22.1.3.2 Exterior of major aircraft subassemblies, if approved by the Department as part of a State Implementation Plan (SIP) revision.~~

~~22.1.3.3 Automobile, light-duty truck, and heavy-duty truck refinishing.~~

~~22.1.3.4 Customized top coating of automobiles and trucks, if production is less than 35 vehicles per day.~~

22.1.3.1 Parts covered by other sections of this regulation.

22.1.3.~~5~~2 Exterior parts of completely assembled marine vessels.

~~22.1.3.6 Exterior of major marine vessel subassemblies if approved by the Department as part of a SIP revision.~~

22.1.4 Except as provided in 22.1.5 of this regulation, the ~~The~~ provisions of ~~emission limits in~~ 22.0 of this regulation do not apply to metal parts and products coating facilities ~~any coating unit within a facility~~ whose actual emissions, without control devices, from all miscellaneous metal part and products 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.

22.1.5 An owner or operator of a facility whose emissions are below the applicability threshold in 22.1.4 of this regulation shall comply with the certification, recordkeeping, and reporting requirements of 22.7.1 of this regulation.

22.1.6 Any facility that becomes or is currently subject to the provisions of 22.0 of this regulation by exceeding the applicability threshold in 22.1.4 of this regulation ~~will~~ shall remain subject to these provisions even if its emissions later fall below the applicability threshold.

22.1.7 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.

22.2 Definitions. As used in 22.0 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.

~~[“Air-dried coating” means a coating that is dried by the use of air or forced warm air at temperatures up to cured at a temperature below 90°C (194°F).~~

~~“Baked coating” means a coating that is cured at a temperature at or above 90° C (194° F).]~~

“Camouflage coating” means a coating used principally by the military to conceal equipment from detection.

“~~**Clear coating**~~” ~~means a coating that (1) either lacks color and opacity or is transparent and (2) uses the surface to which it is applied as a reflective base or undertone color.~~

“**Drum**” means any cylindrical metal shipping container ~~of 13 to~~ larger than 12 gallons capacity, but no larger than 110 gallon capacity.

“Electric-insulating varnish” means a non-convertible-type coating applied to electric motors, components of electric motors, or power transformers, to provide electrical, mechanical and environmental protection or resistance.

“Etching filler” means a coating that contains less than 23% solids by weight and at least 0.5 percent acid by weight and is used instead of applying a pretreatment coating followed by a primer.

“~~**Extreme environmental conditions**~~” ~~means any of the following: the weather all of the time, temperatures frequently above 95°C (203°F), detergents, abrasive and scouring agents, solvents, corrosive atmospheres, or similar environmental conditions.~~

“~~**Extreme performance coatings**~~” ~~means coatings intended for exposure to extreme environmental conditions.~~

“High-performance architectural coating” means a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturer Associations publication number AAMA 2604-05 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605-05 (Voluntary Specification Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels).

“High-temperature coating” means a coating that is certified to withstand a temperature of 1000° F for 24 hours.

“Military specification coating” means a coating which has a formulation approved by a United States military agency for use on military equipment.

“**Miscellaneous metal parts and products coating unit**” means a coating unit in which a coating is applied to any miscellaneous metal parts and products.

“**Miscellaneous parts and products**” means any metal part or metal product, even if attached to or combined with a nonmetal part or product. Miscellaneous metal parts and products include, but are not limited to:

1. Large farm machinery (harvesting, fertilizing and planting machines, tractors, combines, etc.).
2. Small farm machinery (lawn and garden tractors, lawn mowers, rototillers, etc.).
3. Small appliances (fans, mixers, blenders, crock pots, dehumidifiers, vacuum cleaners, etc.).
4. Commercial machinery (office equipment, computers and auxiliary equipment, typewriters, calculators, vending machines, etc.).
5. Industrial machinery (pumps, compressors, conveyor components, fans, blowers, transformers, etc.).
6. Fabricated metal products (metal covered doors, frames, etc.).
7. Any other metal part or product that is within one of the following Standard Industrial Classification Codes: Major Group 33 (primary metal industries), Major Group 34 (fabricated metal products), Major Group 35 (nonelectric machinery), Major Group 36 (electrical machinery), Major Group 37 (transportation equipment), Major Group 38. (miscellaneous instruments), and Major Group 39 (miscellaneous manufacturing industries).
8. ~~Application of underbody anti-chip materials (e.g., underbody plastisol) and coating application operations other than prime, primer surfacer, topcoat, and final repair operations at automobile and light-duty truck assembly plants.~~

"**Pail**" means any cylindrical metal shipping container of 1- to 12-gallon capacity and constructed of 29-gauge and heavier material.

"Pan-backing coating" means a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements.

"Prefabricated architectural component coating" means a coating applied to metal parts and products which is to be used as an architectural structure.

~~"**Refinishing**" means repainting used equipment.~~

"Silicone-release coating" means a coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans.

22.3 Standards

~~22.3.1 No owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation shall cause or allow the application of any coating with VOC content in excess of the emission limits in 22.3.1.1 through 22.3.1.5 of this regulation.~~

		~~kg/L [a]~~	~~lb/gal [a]~~
~~22.3.1.1~~	~~Clear coating~~	~~0.52~~	~~4.3~~
~~22.3.1.2~~	~~Steel pail and drum interior coating~~	~~0.52~~	~~4.3~~
~~22.3.1.3~~	~~Air dried coating~~	~~0.42~~	~~3.5~~
~~22.3.1.4~~	~~Extreme performance coating~~	~~0.42~~	~~3.5~~
~~22.3.1.5~~	~~All other coatings~~	~~0.36~~	~~3.0~~

~~[a] VOC content values are expressed in units of mass of VOC (kg, lb) per volume of coating (liter [L], gallon [gal]), excluding water and exempt compounds, as applied.~~

~~22.3.2 If more than one emission limit in 22.3.1 of this regulation applies to a specific coating, then the least stringent emission limit shall be applied.~~

~~22.3.3 As an alternative to compliance with the emission limits in 22.3.1 of this regulation, an owner or operator of a miscellaneous metal parts and products coating unit may meet the requirements of 22.4 or 22.5 of this regulation.~~

~~22.4 Daily weighted average limitations. No owner or operator of a miscellaneous metal parts and products coating unit that applies multiple coatings, all of which are subject to the same numerical emission limitation within 22.3.1 of this regulation, during the same day (e.g., all coatings used on the unit are subject to 0.42 kg/L [3.5 lb/gal]), 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 coating VOC content limit corresponding to the category of coating used.~~

22.3.1 Except as provided for in 22.3.3, no owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation shall cause or allow the application of any coating to miscellaneous metal parts and products unless:

22.3.1.1 The VOC content of the coating is less than or equal to the limits listed in Table 22-1 of this regulation, or

22.3.1.2 For a miscellaneous metal parts and products coating unit that applies multiple coatings, which are subject to the same numerical emission limitation in Table 22-1 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 22-1 of this regulation corresponding to the category of coating used, or

22.3.1.3 Control equipment is installed and operated that achieves an emission reduction efficiency in accordance with 22.5 of this regulation. The requirements of 22.3.2 shall not apply to any metal parts and products coating unit that achieves an emission reduction efficiency of 95% or greater.

22.3.2 Except as provided in 22.3.1.3 and 22.4, no owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation shall apply a coating to miscellaneous metal parts and products unless the coating is applied with equipment properly operated and maintained

according to the manufacturer's suggested guidelines and using one or more of the following coating application methods:

22.3.2.1 Electrostatic spray

22.3.2.2 Flow coating

22.3.2.3 Dip coating, including electrodeposition

22.3.2.4 Roll coating

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

22.3.2.6 Hand application

22.3.2.7 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.

Table 22 – 1 Metal Parts and Products Coating VOC Content Limits

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

	Air Dried		Baked	
Coating Category	**kg VOC/l coating**	**lb VOC/gal coating**	**kg VOC/l coating**	**lb VOC/gal coating**
General One Component	0.34	2.8	0.28	2.3
General Multi Component	0.34	2.8	0.28	2.3
Camouflage	0.42	3.5	0.36	3.0
Electric Insulating Varnish	0.42	3.5	0.36	3.0
[Electric Insulating and Thermal Conducting Coatings]	**[0.42]**	**[3.5]**	**[0.36]**	**[3.0]**
Etching Filler	0.42	3.5	0.36	3.0
Extreme High Gloss	0.42	3.5	0.36	3.0
Extreme Performance	0.42	3.5	0.36	3.0
Heat Resistant	0.42	3.5	0.36	3.0
High Performance Architectural	0.42	3.5	0.36	3.0
High Temperature	0.42	3.5	0.36	3.0
[Magnetic Data Storage Disc Coatings]	**[0.42]**	**[3.5]**	**[0.36]**	**[3.0]**
Metallic	0.42	3.5	0.36	3.0
Military Specification	0.34	2.8	0.28	2.3
Mold Seal	0.42	3.5	0.36	3.0
Pan Backing	0.42	3.5	0.36	3.0
Prefabricated Architectural Multi Component	0.42	3.5	0.28	2.3
Prefabricated Architectural One Component	0.42	3.5	0.28	2.3
Pretreatment Coatings	0.42	3.5	0.36	3.0

Repair and Touch Up	0.42	3.5	0.36	3.0
[Safety Indicating Coatings]	**[0.42]**	**[3.5]**	**[0.36]**	**[3.0]**
Silicone Release	0.42	3.5	0.42	3.5
Solar Absorbent	0.42	3.5	0.36	3.0
[Solid-Film Lubricant]	**[0.42]**	**[3.5]**	**[0.36]**	**[3.0]**
[Stencil Coatings]	**[0.42]**	**[3.5]**	**[0.36]**	**[3.0]**
Vacuum Metalizing	0.42	3.5	0.42	3.5
Drum Coating, New, Exterior	0.34	2.8	0.34	2.8
Drum Coating, New, Interior	0.42	3.5	0.42	3.5
Drum Coating, Reconditioned, Exterior	0.42	3.5	0.36	3.0
Drum Coating, Reconditioned, Interior	0.50	4.2	0.50	4.2

22.4 Specific Exemptions

22.4.1 The requirements of 22.3.1 and 22.3.2 of this regulation shall not apply to the following coatings and coating operations:

[~~22.4.1.1 Stencil coatings,~~

~~22.4.1.2 Safety indicating coatings,~~

~~22.4.1.3 Solid-film lubricants,~~

~~22.4.1.4 Electric-insulating and thermal-conducting coatings,~~

~~22.4.1.5 Magnetic data storage disc coatings,~~]

22.4.1.**[~~6~~1]** Plastic extruded onto metal parts to form a coating,

22.4.1.**[~~7~~2 ~~Coatings applied using hand-held aerosol cans~~ Aerosol coating product]**, and

22.4.1.**[~~8~~3]** Powder coatings.

22.4.2 The requirements of 22.3.2 of this regulation shall not apply to the following coatings and coating operations:

22.4.2.1 Texture coatings, and

22.4.2.2 Repair and Touch up coatings.

22.5 Control ~~d~~Devices

22.5.1 An owner or operator of a miscellaneous metal parts and products coating unit subject to ~~22.0~~ 22.3.1.3 of this regulation ~~may comply with 22.0 of this regulation by~~ shall determine the emission efficiency needed to comply and demonstrate compliance as follows:

~~22.5.1.1 Installing and operating a capture system on that unit.~~

~~22.5.1.2 Installing and operating a control device on that unit.~~

22.5.1.~~3~~1 ~~Determining~~ 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 ~~3.0~~ 3.3 of **Appendix C** of this regulation for that day or 95%.

22.5.1.~~4~~2 ~~Demonstrating~~ Demonstrate 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.

22.5.2 An owner or operator of a miscellaneous metal parts and products coating unit subject to ~~22.0~~ 22.3.1.3 of this regulation shall ensure that:

22.5.2.1 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 22.0 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.

22.5.2.2 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.

22.6 Test methods. The test methods found in **Appendix A** through **Appendix D** of this regulation shall be used to determine compliance with 22.0 of this regulation.

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

22.6.2 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).

22.7 Compliance Certification, Recordkeeping and ~~r~~Reporting Requirements.

22.7.1 An owner or operator of a miscellaneous metal parts and products coating unit ~~that is~~ exempt from the emission ~~limitations~~ requirements in 22.3 of this regulation shall comply with the certification, recordkeeping, and reporting requirements in 4.2 of this regulation.

22.7.2 An owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation and complying with 22.3.1.1 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.

22.7.3 An owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation and complying with ~~22.4~~ 22.3.1.2 of this regulation ~~by~~ through the use of daily-weighted averaging shall comply with the certification, recordkeeping, and reporting requirements in 4.4 of this regulation.

22.7.4 An owner or operator of a miscellaneous metal parts and products coating unit subject to 22.0 of this regulation and complying with ~~22.5~~ 22.3.1.3 of this regulation by the use of control devices shall comply with the testing, certification, reporting, and recordkeeping requirements in 4.5 of this regulation.

22.7.5 An owner or operator of a metal parts coating unit subject to 22.3.2 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.

13 DE Reg. 1344 (04/01/10)