

**FINAL RULEMAKING**  
**Annex A**  
**TITLE 25. ENVIRONMENTAL PROTECTION**  
**PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
**Subpart C. PROTECTION OF NATURAL RESOURCES**  
**ARTICLE III. AIR RESOURCES**  
**CHAPTER 129. STANDARDS FOR SOURCES**  
**SOURCES OF VOCs**

**§ 129.51. General.**

(a) *Equivalency.* Compliance with §§ 129.52, 129.52a, 129.52b, 129.52c, **129.52d**, 129.54—129.69, 129.71—129.73 and 129.77 may be achieved by alternative methods if the following exist:

(1) The alternative method is approved by the Department in an applicable plan approval or operating permit, or both.

(2) The resulting emissions are equal to or less than the emissions that would have been discharged by complying with the applicable emission limitation.

(3) Compliance by a method other than the use of a low VOC coating, adhesive, sealant, adhesive primer, sealant primer, surface preparation solvent, cleanup solvent, cleaning solution, fountain solution or ink which meets the applicable emission limitation in §§ 129.52, 129.52a, 129.52b, 129.52c, **129.52d**, 129.67, 129.67a, 129.67b, 129.73 and 129.77 shall be determined on the basis of equal volumes of solids.

(4) Capture efficiency testing and emissions testing are conducted in accordance with methods approved by the EPA.

(5) Adequate records are maintained to ensure enforceability.

(6) The alternative compliance method is incorporated into a plan approval or operating permit, or both, reviewed by the EPA, including the use of an air cleaning device to comply with § 129.52, § 129.52a, § 129.52b, § 129.52c, **§ 129.52d**, § 129.67, § 129.67a, § 129.67b, § 129.68(b)(2) and (c)(2), § 129.73 or § 129.77.

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**§ 129.52. Surface coating processes.**

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(g) The records shall be maintained **onsite** for 2 years **[and], unless a longer period is required by an order, plan approval or operating permit issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources). The records shall be submitted to the Department in an acceptable format** on a schedule reasonably prescribed by the Department.

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**(k) THE PROVISION OF § 129.52d(a)(5)(i) (RELATING TO CONTROL OF VOC EMISSIONS FROM MISCELLANEOUS METAL PARTS SURFACE COATING PROCESSES, MISCELLANEOUS PLASTIC PARTS SURFACE COATING PROCESSES AND PLEASURE CRAFT SURFACE COATINGS) APPLIES TO SURFACE COATING PROCESSES REGULATED UNDER TABLE I, CATEGORY 10, MISCELLANEOUS METAL PARTS AND PRODUCTS. AEROSOL COATINGS SHALL MEET THE REQUIREMENTS OF 40 CFR PART 59 SUBPART E (RELATING TO NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR AEROSOL COATINGS).**

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*(Editor's Note: The following section is new and printed in regular type to enhance readability.)*

**§ 129.52d. Control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings.**

*(a) Applicability.*

(1) This section applies to the owner and operator of a miscellaneous metal part surface coating process or miscellaneous plastic part surface coating process, or both, if the total actual VOC emissions from all miscellaneous metal part coating units and miscellaneous plastic part coating units, including related cleaning activities, at the facility are equal to or greater than 2.7 tons per 12-month rolling period, before consideration of controls.

(2) This section applies, as specified, to the owner and operator of a miscellaneous metal part surface coating process or miscellaneous plastic part surface coating process, or both, if the total actual VOC emissions from all miscellaneous metal part coating units and miscellaneous plastic part coating units, including related cleaning activities, at the facility are below 2.7 tons per 12-month rolling period, before consideration of controls.

(3) Compliance with the VOC emission limits and other requirements of this section assures compliance with the VOC emission limits and other requirements of § 129.52 (relating to surface coating processes) for the miscellaneous metal parts and products surface coating processes as specified in § 129.52, Table I, Category 10.

(4) If an owner or operator elects to comply with § 129.52e (relating to control of VOC emissions from automobile and light-duty truck assembly surface coating operations and heavier vehicle coating operations) under § 129.52e(a)(2) or (3), then § 129.52e instead of this section applies to the separate coating line at the facility, or to the coating of a body or body part for a new heavier vehicle at the facility, or both, for which the election is made.

(5) This section does not apply to an owner or operator in the use or application of the following:

(i) Aerosol coatings **THAT MEET THE REQUIREMENTS OF 40 CFR PART 59 SUBPART E (RELATING TO NATIONAL VOLATILE ORGANIC COMPOUND EMISSION STANDARDS FOR AEROSOL COATINGS).**

(ii) Aerospace coatings.

(iii) Architectural coatings.

(iv) Automobile refinishing coatings.

(v) Auto and light-duty truck assembly coatings.

(vi) Can, coil or magnet wire coatings.

(vii) Coating applied to a test panel or coupon, or both, in research and development, quality control or performance testing activities, if records are maintained as required under subsections (e) and (f).

(viii) Fiberglass boat manufacturing materials.

(ix) Flat wood paneling coatings.

(x) Large appliance coatings.

(xi) Metal furniture coatings.

(xii) Miscellaneous industrial adhesives.

(xiii) Paper, film and foil coatings.

(xiv) Shipbuilding and repair coatings.

(xv) Wood furniture coatings.

(b) *Definitions.* The following words and terms, when used in this section, have the following meanings unless the context clearly indicates otherwise:

*Adhesion primer*—A coating applied to a polyolefin part to promote the adhesion of a subsequent coating. This type of coating is clearly identified on its accompanying MSDS by this term or as an adhesion promoter.

*Air-dried coating*—A coating that is cured or dried at a temperature below 90°C (194°F).

*Antifoulant or antifouling coating*—A coating applied to the underwater portion of a pleasure craft to prevent or reduce the attachment of biological organisms, and registered with the EPA as a pesticide under section 2 of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C.A. § 136).

*Appurtenance*—An accessory to a stationary structure that is coated at the facility. The term includes:

- (i) Bathroom and kitchen fixtures.
- (ii) Cabinets.
- (iii) Concrete forms.
- (iv) Doors.
- (v) Elevators.
- (vi) Fences.
- (vii) Hand railings.
- (viii) Heating equipment, air conditioning equipment, and other fixed mechanical equipment or stationary tools.
- (ix) Lampposts.
- (x) Partitions.
- (xi) Pipes and piping systems.
- (xii) Rain gutters and downspouts.
- (xiii) Stairways.
- (xiv) Fixed ladders.
- (xv) Catwalks and fire escapes.
- (xvi) Window screens.

*Baked coating*—A coating cured at a temperature at or above 90°C (194°F).

*Black coating*—A coating that meets either of the following:

- (i) Both of the following criteria, which are based on Cielab color space, 0/45 geometry:

(A) Maximum lightness: 23 units.

(B) Saturation: less than 2.8, where saturation equals the square root of  $A^2 + B^2$ .

(ii) For spherical geometry, specular included, maximum lightness is 33 units.

*Business machine*—

(i) A device that uses an electronic or mechanical method to process information, perform calculations, print or copy information, or convert sound into electrical impulses for transmission.

(ii) The term includes the following:

(A) Devices listed in *Standard Industrial Classification Codes* 3572, 3573, 3574, 3579 and 3661.

(B) Photocopy machines, a subcategory of *Standard Industrial Classification Code* 3861.

*Camouflage coating*—A coating used principally by the military to conceal equipment from detection.

*Cleaning material* or *cleaning solvent*—A material used during cleaning activities or cleaning operations to remove residue or other unwanted materials from equipment.

*Clear coating*—

(i) A colorless coating that contains binders, but no pigment, and is formulated to form a transparent film.

(ii) The term includes a transparent coating that uses the undercoat as a reflectant base or undertone color.

*Clear wood finishes*—A clear or semitransparent topcoat applied to a wood substrate to provide a transparent or translucent film.

*Coating*—

(i) A material applied onto or into a substrate for protective, decorative or functional purposes.

(ii) The term includes paints, sealants, caulks, primers, inks and maskants.

(iii) The term does not include protective oils, acids or bases, or combinations of these materials.

*Coating unit*—A series of one or more coating applicators and associated drying area or oven or both wherein a coating is applied and dried or cured, or both. The unit ends at the point where the coating is dried or cured, or prior to subsequent application of a different coating.

*Drum*—A cylindrical metal shipping container larger than 12 gallons capacity but not larger than 110 gallons capacity.

*EMI/RFI shielding coating*—A coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference or static discharge.

*Electric dissipating coating*—A coating that rapidly dissipates a high voltage electric charge.

*Electric-insulating varnish*—A non-convertible-type coating applied to electric motors, components of electric motors or power transformers to provide electrical, mechanical or environmental protection or resistance.

*Electrostatic prep coating*—A coating applied to a plastic part solely to provide conductivity for the subsequent application of a primer, a topcoat or other coating through the use of electrostatic application methods. This term is clearly identified as an electrostatic prep coat on its accompanying MSDS.

*Etching filler*—A coating that contains less than 23% solids by weight and at least 0.5% acid by weight, and is used instead of applying a pretreatment coating followed by a primer.

*Extreme high-gloss coating*—A coating that achieves the following:

(i) For miscellaneous metal part surface coatings or miscellaneous plastic part surface coatings, other than pleasure craft surface coatings, a coating when tested by the American Society for Testing Material Test Method D-523-08 shows a reflectance of at least 75% on a 60° meter.

(ii) For pleasure craft surface coatings, a coating that shows a reflectance of at least 90% on a 60° meter when tested by American Society for Testing Material Test Method D-523-08.

*Extreme-performance coating*—

(i) A coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to one or more of the following:

(A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions.

(B) Repeated exposure to temperatures in excess of 250°F.

(C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.

(ii) The term includes coatings applied to locomotives, railroad cars, farm machinery and heavy duty trucks.

*Finish primer/surfacer*—A coating applied with a wet film thickness of less than 10 mils prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections.

*Flexible primer*—A coating required to comply with engineering specifications for impact resistance, mandrel bend or elongation as defined by the original equipment manufacturer.

*Fog coat*—A coating applied to a plastic part, at a thickness of no more than 0.5 mil of coating solids, for the purpose of color matching without masking a molded-in texture.

*Gloss reducer*—A coating applied to a plastic part, at a thickness of no more than 0.5 mil of coating solids, solely to reduce the shine of the part.

*Heat-resistant coating*—A coating that must withstand a temperature of at least 400°F during normal use.

*Heavier vehicle*—A self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds.

*High bake coating*—A coating designed to cure only at temperatures of more than 90°C (194°F).

*High build primer/surfacer*—A coating applied with a wet film thickness of 10 mils or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier or promotion of a uniform surface necessary for filling in surface imperfections.

*High gloss coating*—A coating that achieves at least 85% reflectance on a 60° meter when tested by ASTM Method D-523-08.

*High-performance architectural coating*—A coating used to protect aluminum architectural subsections and which meets the requirements of the American Architectural Manufacturers Association's publication number AAMA 2604 (Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels) or 2605 (Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels), including updates and revisions.

*High-temperature coating*—A coating certified to withstand a temperature of 1,000°F for 24 hours.

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

*Metal particles*—Pieces of a pure elemental metal or a combination of elemental metals.

*Metallic coating*—A coating that contains more than 5 grams of metal particles per liter of coating as applied.

*Military specification coating*—A coating that has a formulation approved by a United States Military Agency for use on military equipment.

*Miscellaneous metal parts and miscellaneous plastic parts*—Metal or plastic components of parts or products, as well as the parts or products themselves, constructed either entirely or partially from metal or plastic, or both, including the following:

- (i) Fabricated metal products.
- (ii) Molded plastic parts.
- (iii) Farm machinery.
- (iv) Commercial and industrial machinery and equipment.
- (v) Automotive or transportation equipment.
- (vi) Interior or exterior automotive parts.
- (vii) Construction equipment.
- (viii) Motor vehicle accessories.
- (ix) Bicycles and sporting goods.
- (x) Toys.
- (xi) Recreational vehicles.
- (xii) Watercraft.
- (xiii) Extruded aluminum structural components.
- (xiv) Railroad cars.

- (xv) Heavier vehicles.
- (xvi) Lawn and garden equipment.
- (xvii) Business machines.
- (xviii) Laboratory and medical equipment.
- (xix) Electronic equipment.
- (xx) Steel drums.
- (xxi) Metal pipes.

*Mold-release coating*—A coating applied to a mold to prevent the molded product from sticking to the mold as it is removed.

*Mold-seal coating*—The initial coating applied to a new or repaired mold to provide a smooth surface that when coated with a mold-release coating prevents products from sticking to the mold.

*Motor vehicle bedliner*—A multicomponent coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to a cargo bed after the application of topcoat to provide additional durability and chip resistance.

*Motor vehicle cavity wax*—A coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied into the cavities of the vehicle primarily to enhance corrosion protection.

*Motor vehicle deadener*—A coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to selected vehicle surfaces primarily to reduce the sound of road noise in the passenger compartment.

*Motor vehicle gasket/sealing material*—

(i) A fluid, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to coat a gasket or replace and perform the same function as a gasket.

(ii) The term includes room temperature vulcanization seal material.

*Motor vehicle lubricating wax/compound*—A protective lubricating material, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to vehicle hubs and hinges.

*Motor vehicle sealer*—A high viscosity material, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied in the paint shop after the body has received

an electrodeposition primer coating and before the application of subsequent coatings (for example, a primer/surfacer). The primary purpose of the material is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. The material is also referred to as sealant, sealant primer or caulk.

*Motor vehicle trunk interior coating*—A coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the trunk interior to provide chip protection.

*Motor vehicle underbody coating*—A coating, used at a facility that is not an automobile or light-duty truck assembly coating facility, applied to the undercarriage or firewall to prevent corrosion or provide chip protection, or both.

*Multicolored coating*—A coating that exhibits more than one color when applied and which is packaged in a single container and applied in a single coat.

*Multicomponent coating*—A coating requiring the addition of a separate reactive resin, commonly known as a catalyst or hardener, before application to the substrate to form an acceptable dry film.

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

*Optical coating*—A coating applied to an optical lens.

*Pan-backing coating*—A coating applied to the surface of pots, pans or other cooking implements that are exposed directly to a flame or other heating element.

*Pleasure craft*—A vessel that is manufactured or operated primarily for recreational purposes, or leased, rented or chartered to a person or business for recreational purposes.

*Pleasure craft coating*—A marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller or other means to a pleasure craft.

*Powder coating*—A coating applied as a dry, finely divided solid that, when melted and fused, adheres to the substrate as a paint film.

*Prefabricated architectural component coating*—A coating applied to a prefabricated metal part or product if the part or product is to be used as an architectural appurtenance or structure. The appurtenance is detached from the structure when coated in a shop setting.

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

*Pretreatment wash primer*—A coating that contains no more than 12% solids by weight and at least 0.5% acid by weight that is used to provide surface etching and that is applied directly to fiberglass and metal surfaces to provide corrosion resistance and adhesion of subsequent coatings.

*Red coating*—A coating that meets the following:

- (i) All of the following criteria, which are based on Cielab color space, 0/45 geometry:
  - (A) Yellow limit: the hue of hostaperm scarlet.
  - (B) Blue limit: the hue of monastral red-violet.
  - (C) Lightness limit for metallics: 35% aluminum flake.
  - (D) Lightness limit for solids: 50% titanium dioxide white.
  - (E) Solid reds: hue angle of -11 to 38 degrees and maximum lightness of 23 to 45 units.
  - (F) Metallic reds: hue angle of -16 to 35 degrees and maximum lightness of 28 to 45 units.
- (ii) For spherical geometry, specular included, the upper limit is 49 units.

*Repair coating*—A coating used to recoat portions of a previously coated product that has sustained mechanical damage to the coating following normal coating operations.

*Resist coating*—A coating that is applied to a plastic part before metallic plating to prevent deposits of metal on portions of the plastic part.

*Shock-free coating*—A coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and being resistant to breaking down under high voltage.

*Silicone-release coating*—A coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces, such as baking pans.

*Solar-absorbent coating*—A coating which has as its prime purpose the absorption of solar radiation.

*Stencil coating*—An ink or coating that is applied onto a template, stamp or stencil to add identifying letters, numbers or decorative designs, or a combination of these, to a metal or plastic part or product.

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

*Topcoat*—A final coating applied in a surface coating process that applies two or more coatings.

*Touch-up coating*—A coating used to cover minor coating imperfections appearing after the main coating operation.

*Translucent coating*—A coating that contains binders and pigment and is formulated to form a colored, but not opaque, film.

*Two-component coating*—A coating requiring the addition of a separate reactive resin, commonly known as a catalyst, before application to form an acceptable dry film.

*Vacuum-metalizing coating*—A coating meeting either of the following:

(i) An undercoat applied to a substrate on which the metal is deposited prior to a vacuum-metalizing process.

(ii) An overcoat applied directly to the metal film after a vacuum-metalizing process.

*Vacuum-metalizing process*—The process of evaporating metals inside a vacuum chamber and depositing them on a substrate to achieve a uniform metalized layer.

(c) *Existing RACT permit.* The requirements of this section supersede the requirements of a RACT permit issued under §§ 129.91—129.95 (relating to stationary sources of NO<sub>x</sub> and VOCs) to the owner or operator of a source subject to subsection (a) prior to January 1, ~~2016~~ **2017**, to control, reduce or minimize VOCs from a miscellaneous metal part or miscellaneous plastic part surface coating process, except to the extent the RACT permit contains more stringent requirements.

(d) *Emission limitations.* Beginning January 1, ~~2016~~ **2017**, a person subject to subsection (a)(1) may not cause or permit the emission into the outdoor atmosphere of VOCs from a miscellaneous metal part coating unit or miscellaneous plastic part coating unit, or both, unless emissions of VOCs are controlled in accordance with paragraph (1), (2) or (3).

(1) *Compliant materials option.* The VOC content of each miscellaneous metal part coating or each miscellaneous plastic part coating, as applied, excluding water and exempt compounds, is equal to or less than the VOC content limit for the applicable coating category specified in the applicable table of VOC content limits in Tables I—V.

(2) *Combination of compliant materials, VOC emissions capture system and add-on air pollution control device option.* The combination of one or more VOC-containing coatings, as applied, that meet the emission rate limits for the applicable coating category specified in the applicable table of emission rate limits in Tables VI—IX, and one or more VOC emissions capture systems and one or more add-on air pollution control devices that meet the requirements of subsection (e)(2).

(3) *VOC emissions capture system and add-on air pollution control device option.* The overall weight of VOCs emitted to the atmosphere is reduced through the use of vapor recovery, oxidation, incineration or another method that is acceptable under § 129.51(a) (relating to general) and meets the requirements of subsection (e)(2). The overall control efficiency of a control system, as determined by the test methods and procedures specified in Chapter 139 (relating to sampling and testing), may be no less than 90%.

(4) *Least restrictive VOC limit.* If more than one VOC content limit or VOC emission rate limit applies to a specific coating, then the least restrictive VOC content limit or VOC emission rate limit applies.

(5) *Coatings not listed in Table I, II, VI or VII.* For a miscellaneous metal part or miscellaneous plastic part coating that does not meet the coating categories listed in Table I, II, VI or VII, the VOC content limit or VOC emission rate limit shall be determined by classifying the coating as a general one component coating or general multicomponent coating. The corresponding general one component coating or general multicomponent coating limit applies.

(6) *Coatings not listed in Table IV or IX.* For a pleasure craft coating that does not meet the coating categories listed in Table IV or IX, the VOC content limit or VOC emission rate limit shall be determined by classifying the coating as an "all other pleasure craft surface coatings for metal or plastic." The "all other pleasure craft surface coatings for metal or plastic" limit applies.

(e) *Compliance and monitoring requirements.*

(1) *All owners and operators.* Regardless of the facility's VOC emissions, the owner or operator of a miscellaneous metal part surface coating process or miscellaneous plastic part surface coating process, or both, subject to subsection (a)(1) or (2), shall comply with this section as specified throughout this section. For an owner or operator subject only to subsection (a)(2), the compliance requirements are the recordkeeping requirements in subsection (f)(2).

(2) *VOC emissions capture system and add-on air pollution control device.* The owner or operator of a facility subject to subsection (a)(1) that elects to comply with the emission limitations of subsection (d) through installation of a VOC emissions capture system and add-on air pollution control device under subsection (d)(2) or (3) shall submit an application for a plan approval to the appropriate regional office. The plan approval must be approved, in writing, by the Department prior to installation and operation of the emissions capture system and add-on air pollution control device. The plan approval must include the following information:

(i) A description, including location, of each affected source or operation to be controlled with the emissions capture system and add-on air pollution control device.

(ii) A description of the proposed emissions capture system and add-on air pollution control device to be installed.

(iii) A description of the proposed compliance monitoring equipment to be installed.

(iv) A description of the parameters to be monitored to demonstrate continuing compliance.

(v) A description of the records to be kept that will document the continuing compliance.

(vi) A schedule containing proposed interim dates for completing each phase of the required work to install and test the emissions capture system and add-on air pollution control device described in subparagraph (ii) and the compliance monitoring equipment described in subparagraph (iii).

(vii) A proposed interim emission limitation that will be imposed on the affected source or operation until compliance is achieved with the applicable emission limitation.

(viii) A proposed final compliance date that is as soon as possible but not later than 1 year after the start of installation of the approved emissions capture system and add-on air pollution control device and the compliance monitoring equipment.

(f) *Recordkeeping and reporting requirements.*

(1) The owner or operator of a miscellaneous metal part coating unit or miscellaneous plastic part coating unit, or both, subject to subsection (a)(1) shall maintain monthly records sufficient to demonstrate compliance with this section. The records must include the following information:

(i) The following parameters for each coating, thinner, component and cleaning solvent as supplied:

(A) Name and identification number of the coating, thinner, other component or cleaning solvent.

(B) Volume used.

(C) Mix ratio.

(D) Density or specific gravity.

(E) Weight percent of total volatiles, water, solids and exempt solvents.

(F) Volume percent of total volatiles, water and exempt solvents for the applicable table of limits in Tables I—V.

(G) Volume percent of solids for the applicable table of limits in Tables VI—IX.

(ii) The VOC content of each coating, thinner, other component and cleaning solvent as supplied.

(iii) The VOC content of each as applied coating or cleaning solvent.

(iv) The calculations performed for each applicable requirement under subsections (d) and (e).

(v) The information required in a plan approval issued under subsection (e)(2).

(2) An owner or operator subject to subsection (a)(2), or otherwise claiming an exemption or exception in this section, shall maintain records sufficient to verify the applicability of subsection (a)(2), the exemption or exception. Records maintained for compliance demonstrations may include purchase, use, production and other records.

(3) The records shall be maintained onsite for 2 years, unless a longer period is required by an order, plan approval or operating permit issued under Chapter 127 (relating to construction, modification, reactivation and operation of sources).

(4) The records shall be submitted to the Department in an acceptable format upon receipt of a written request from the Department.

(g) *Coating application methods.* A person subject to subsection (a)(1) may not cause or permit the emission into the outdoor atmosphere of VOCs from a miscellaneous metal part coating unit or miscellaneous plastic part coating unit, or both, unless the coatings are applied using one or more of the following coating application methods:

(1) Electrostatic coating.

(2) Flow coating.

(3) Dip coating, including electrodeposition.

(4) Roll coating.

(5) High volume-low pressure (HVLP) spray coating.

(6) Airless spray coating.

(7) Air-assisted airless spray coating.

(8) Other coating application method if approved in writing by the Department prior to use.

(i) The coating application method must be capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spray coating.

(ii) The owner or operator shall submit the request for approval to the Department in writing.

(h) *Exempt coatings and exempt coating unit operations.*

(1) The requirements of subsections (d) and (g) do not apply to the application of the following coatings to a metal part:

- (i) Stencil coating.
- (ii) Safety-indicating coating.
- (iii) Solid-film lubricant.
- (iv) Electric-insulating and thermal-conducting coating.
- (v) Magnetic data storage disk coating.
- (vi) Plastic extruded onto metal parts to form a coating.
- (vii) Powder coating.

(2) The requirements of subsection (d) do not apply to the application of the following coatings to a plastic part:

- (i) Touch-up and repair coating.
- (ii) Stencil coating applied on a clear or transparent substrate.
- (iii) Clear or translucent coating.
- (iv) Coating applied at a paint manufacturing facility while conducting performance tests on coating.
- (v) Reflective coating applied to highway cones.
- (vi) Mask coating, if the coating is less than 0.5 millimeter thick (dried) and the area coated is less than 25 square inches.
- (vii) EMI/RFI shielding coating.
- (viii) Heparin-benzalkonium chloride (HBAC)-containing coating applied to a medical device, provided that the total usage of HBAC-containing coatings does not exceed 100 gallons in 1 calendar year at the facility.
- (ix) Powder coating.

(x) An individual coating category used in an amount less than 50 gallons in 1 calendar year provided that the total usage of all of the coatings, combined, does not exceed 200 gallons per year at the facility. This exception applies only if substitute compliant coatings are not available.

(3) The requirements of subsection (d) do not apply to the application of the following coatings to automotive-transportation and business machine parts:

- (i) Texture coat.
- (ii) Vacuum-metalizing coating.
- (iii) Gloss reducer.
- (iv) Texture topcoat.
- (v) Adhesion primer.
- (vi) Electrostatic prep coat.
- (vii) Resist coating.
- (viii) Stencil coating.
- (ix) Powder coating.

(4) The requirements of subsection (g) do not apply to the following activities:

- (i) Application of a touch-up coating, repair coating or textured finish to a metal part.
- (ii) Application of a powder coating to the following:
  - (A) Plastic part.
  - (B) Automotive-transportation plastic part.
  - (C) Business machine plastic part.
- (iii) Airbrush application of coating to a metal part or plastic part using no more than 5 gallons of coating per year.
- (iv) Use of an add-on air pollution control device to comply with subsection (d).
- (v) Application of extreme high-gloss coating in a pleasure craft surface coating operation.

(i) *Work practice requirements for coating-related activities.* The owner or operator of a miscellaneous metal part coating unit or miscellaneous plastic part coating unit, or both, subject to subsection (a)(1) shall comply with the following work practices for coating-related activities:

(1) Store all VOC-containing coatings, thinners or coating-related waste materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC-containing coatings, thinners or coating-related waste materials are kept closed at all times, except when depositing or removing these coatings, thinners or waste materials.

(3) Minimize spills of VOC-containing coatings, thinners or coating-related waste materials and clean up spills immediately.

(4) Convey VOC-containing coatings, thinners or coating-related waste materials from one location to another in closed containers or pipes.

(j) *Work practice requirements for cleaning materials.* The owner or operator of a miscellaneous metal part coating unit or miscellaneous plastic part coating unit subject to subsection (a)(1) shall comply with the following work practices for cleaning materials:

(1) Store all VOC-containing cleaning materials and used shop towels in closed containers.

(2) Ensure that mixing vessels and storage containers used for VOC-containing cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC-containing cleaning materials and clean up spills immediately.

(4) Convey VOC-containing cleaning materials from one location to another in closed containers or pipes.

(5) Minimize VOC emissions from cleaning of application, storage, mixing or conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

(k) *Measurements and calculations.* To determine the properties of a coating or component used in a miscellaneous metal parts surface coating process or miscellaneous plastic parts surface coating process, measurements and calculations shall be performed according to one or more of the following:

(1) EPA Reference Method 24, *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings*, found at 40 CFR 60, Subpart D, Appendix A, including updates and revisions.

(2) Manufacturer's formulation data.

(3) Sampling and testing done in accordance with the procedures and test methods specified in Chapter 139.

(4) Other test method demonstrated to provide results that are acceptable for purposes of determining compliance with this section if prior approval is obtained in writing from the Department.

(5) Add-on air pollution control devices shall be equipped with the applicable monitoring equipment according to manufacturers' specifications. The monitoring equipment shall be installed, calibrated, operated and maintained according to manufacturers' specifications at all times the add-on air pollution control device is in use.

(6) EPA calculations information in the following:

(i) *A Guideline for Surface Coating Calculations*, EPA-340/1-86-016, including updates and revisions.

(ii) *Procedures for Certifying Quantity of Volatile Organic Compounds Emitted by Paint, Ink, and Other Coatings*, EPA-450/3-84-019, including updates and revisions.

**Table I. VOC Content Limits for Metal Parts and Products Surface Coatings  
Weight of VOC per Volume of Coating, Less Water and Exempt Compounds,  
as Applied**

Coating Category	Air Dried		Baked	
	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 Multicomponent	0.34	2.8	0.28	2.3
Camouflage	0.42	3.5	0.42	3.5
Electric-insulating Varnish	0.42	3.5	0.42	3.5
Etching Filler	0.42	3.5	0.42	3.5
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	0.74	6.2	0.74	6.2
High-temperature	0.42	3.5	0.42	3.5
Metallic	0.42	3.5	0.42	3.5
Military Specification	0.34	2.8	0.28	2.3
Mold-seal	0.42	3.5	0.42	3.5
Pan-backing	0.42	3.5	0.42	3.5
Prefabricated Architectural Multicomponent	0.42	3.5	0.28	2.3
Prefabricated Architectural One-component	0.42	3.5	0.28	2.3
Pretreatment	0.42	3.5	0.42	3.5
Touch-up and Repair	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
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	0.42	3.5
Drum Coating, Reconditioned, Interior	0.50	4.2	0.50	4.2

**Table II. VOC Content Limits for Plastic Parts and Products Surface Coatings  
Weight of VOC per Volume of Coating, Less Water and Exempt Compounds,  
as Applied**

Coating Category	kg VOC/ lb VOC/ l coating gal coating	
	General One-component	0.28
General Multicomponent	0.42	3.5
Electric Dissipating and Shock-free	0.80	6.7
Extreme Performance (2-pack coatings)	0.42	3.5
Metallic	0.42	3.5
Military Specification (1-pack)	0.34	2.8
Military Specification (2-pack)	0.42	3.5
Mold-seal	0.76	6.3
Multicolored	0.68	5.7
Optical	0.80	6.7
Vacuum-metalizing	0.80	6.7

**Table III. VOC Content Limits for Automotive/Transportation and  
Business Machine Plastic Parts Surface Coatings  
Weight of VOC per Volume of Coating, Less Water and Exempt Compounds,  
as Applied**

**Automotive/Transportation Coatings\***

Coating Category	kg VOC/ l coating	lb VOC/ gal coating
I. High Bake Coatings—Interior and Exterior Parts		
Flexible Primer	0.54	4.5
Nonflexible Primer	0.42	3.5
Basecoat	0.52	4.3
Clear Coat	0.48	4.0
Non-basecoat/Clear Coat	0.52	4.3
II. Low Bake/Air Dried Coatings—Exterior Parts		
Primer	0.58	4.8
Basecoat	0.60	5.0
Clear Coat	0.54	4.5
Non-basecoat/Clear Coat	0.60	5.0
III. Low Bake/Air Dried Coatings—Interior Parts		
	0.60	5.0
IV. Touch-up and Repair		
	0.62	5.2

\* For red, yellow and black automotive coatings, except touch-up and repair coatings, the limit is determined by multiplying the appropriate limit in this table by 1.15.

**Business Machine Coatings**

<b>Coating Category</b>	<b>kg VOC/ l coating</b>	<b>lb VOC/ gal coating</b>
Primer	0.35	2.9
Topcoat	0.35	2.9
Texture Coat	0.35	2.9
Fog Coat	0.26	2.2
Touch-up and Repair	0.35	2.9

**Table IV. VOC Content Limits for Pleasure Craft Surface Coatings  
Weight of VOC per Volume of Coating,  
Less Water and Exempt Compounds, as Applied**

<b>Coating Category</b>	<b>kg VOC/ l coating</b>	<b>lb VOC/ gal coating</b>
Extreme High-gloss Topcoat	0.60	5.0
High Gloss Topcoat	0.42	3.5
Pretreatment Wash Primer	0.78	6.5
Finish Primer/Surfacer	0.42	3.5
High Build Primer Surfacer	0.34	2.8
Aluminum Substrate Antifoulant Coating	0.56	4.7
Antifoulant Sealer/Tiecoat	0.42	3.5
Other Substrate Antifoulant Coating	0.40	3.3
All Other Pleasure Craft Surface Coatings for Metal or Plastic	0.42	3.5

**Table V. VOC Content Limits for Motor Vehicle Materials Surface Coatings  
Weight of VOC per Volume of Coating,  
Less Water and Exempt Compounds, as Applied**

<b>Coating Category</b>	<b>kg VOC/ l coating</b>	<b>lb VOC/ gal coating</b>
Motor Vehicle Cavity Wax	0.65	5.4
Motor Vehicle Sealer	0.65	5.4
Motor Vehicle Deadener	0.65	5.4
Motor Vehicle Gasket/Gasket Sealing Material	0.20	1.7
Motor Vehicle Underbody Coating	0.65	5.4
Motor Vehicle Trunk Interior Coating	0.65	5.4
Motor Vehicle Bedliner	0.20	1.7
Motor Vehicle Lubricating Wax/Compound	0.70	5.8

**Table VI. VOC Emission Rate Limits for  
Metal Parts and Products Surface Coatings  
Weight of VOC per Volume of Coating Solids, as Applied**

Coating Category	Air Dried		Baked	
	kg VOC/ l solids	lb VOC/ gal solids	kg VOC/ l solids	lb VOC/ gal solids
General One-component	0.54	4.52	0.40	3.35
General Multicomponent	0.54	4.52	0.40	3.35
Camouflage	0.80	6.67	0.80	6.67
Electric-insulating Varnish	0.80	6.67	0.80	6.67
Etching Filler	0.80	6.67	0.80	6.67
Extreme High-gloss	0.80	6.67	0.61	5.06
Extreme Performance	0.80	6.67	0.61	5.06
Heat-resistant	0.80	6.67	0.61	5.06
High-performance Architectural	4.56	38.0	4.56	38.0
High-temperature	0.80	6.67	0.80	6.67
Metallic	0.80	6.67	0.80	6.67
Military Specification	0.54	4.52	0.40	3.35
Mold-seal	0.80	6.67	0.80	6.67
Pan-backing	0.80	6.67	0.80	6.67
Prefabricated Architectural Multicomponent	0.80	6.67	0.40	3.35
Prefabricated Architectural One-component	0.80	6.67	0.40	3.35
Pretreatment	0.80	6.67	0.80	6.67
Silicone-release	0.80	6.67	0.80	6.67
Solar-absorbent	0.80	6.67	0.61	5.06
Vacuum-metalizing	0.80	6.67	0.80	6.67
Drum Coating, New, Exterior	0.54	4.52	0.54	4.52
Drum Coating, New, Interior	0.80	6.67	0.80	6.67
Drum Coating, Reconditioned, Exterior	0.80	6.67	0.80	6.67
Drum Coating, Reconditioned, Interior	1.17	9.78	1.17	9.78

**Table VII. VOC Emission Rate Limits for  
Plastic Parts and Products Surface Coatings  
Weight of VOC per Volume of Coating Solids, as Applied**

Coating Category	kg VOC/ lb VOC/ l solids gal solids	
	General One-component	0.40
General Multicomponent	0.80	6.67
Electric Dissipating and Shock-free	8.96	74.7
Extreme Performance (2-pack coatings)	0.80	6.67
Metallic	0.80	6.67
Military Specification (1-pack)	0.54	4.52
Military Specification (2-pack)	0.80	6.67
Mold-seal	5.24	43.7
Multicolored	3.04	25.3
Optical	8.96	74.7
Vacuum-metalizing	8.96	74.7

**Table VIII. VOC Emission Rate Limits for Automotive/Transportation and  
Business Machine Plastic Parts Surface Coatings  
Weight of VOC per Volume of Coating Solids, as Applied  
Automotive/Transportation Coatings\***

Coating Category	kg VOC/ l solids	lb VOC/ gal solids
I. High Bake Coatings—Interior and Exterior Parts		
Flexible Primer	1.39	11.58
Nonflexible Primer	0.80	6.67
Basecoat	1.24	10.34
Clear Coat	1.05	8.76
Non-basecoat/Clear Coat	1.24	10.34
II. Low Bake/Air Dried Coatings—Exterior Parts		
Primer	1.66	13.80
Basecoat	1.87	15.59
Clear Coat	1.39	11.58
Non-basecoat/Clear Coat	1.87	15.59
III. Low Bake/Air Dried Coatings—Interior Parts	1.87	15.59
IV. Touch-up and Repair	2.13	17.72

\* For red, yellow and black automotive coatings, except touch-up and repair coatings, the limit is determined by multiplying the appropriate limit in this table by 1.15.

**Business Machine Coatings**

Coating Category	kg VOC/ lb VOC/	
	l solids	gal solids
Primer	0.57	4.80
Topcoat	0.57	4.80
Texture Coat	0.57	4.80
Fog Coat	0.38	3.14
Touch-up and Repair	0.57	4.80

**Table IX. VOC Emission Rate Limits for Pleasure Craft Surface Coatings  
Weight of VOC per Volume of Coating Solids, as Applied**

Coating Category	kg VOC/ lb VOC/	
	l solids	gal solids
Extreme High-gloss Topcoat	1.10	9.2
High Gloss Topcoat	0.80	6.7
Pretreatment Wash Primer	6.67	55.6
Finish Primer/Surfacer	0.80	6.7
High Build Primer Surfacer	0.55	4.6
Aluminum Substrate Antifoulant Coating	1.53	12.8
Other Substrate Antifoulant Coating	0.53	4.4
All Other Pleasure Craft Surface Coatings for Metal or Plastic	0.80	6.7

**§ 129.67. Graphic arts systems.**

(a) This section applies as follows:

(1) This section applies to the owner and operator of a facility whose rotogravure and flexographic printing presses by themselves or in combination with a surface coating operation subject to § 129.52, § 129.52a, § 129.52b **[or]**, § 129.52c **or § 129.52d** or in combination with a flexible packaging printing press subject to § 129.67a (relating to control of VOC emissions from flexible packaging printing presses) have the potential to emit or have emitted VOCs into the outdoor atmosphere in quantities greater than 1,000 pounds (460 kilograms) per day or 100 tons (90,900 kilograms) per year during any calendar year since January 1, 1987.

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**§ 129.75. Mobile equipment repair and refinishing.**

\* \* \* \* \*

(b) This section does not apply to a person who applies surface coating to mobile equipment or mobile equipment components under one of the following circumstances:

(1) The surface coating process is subject to the miscellaneous metal parts finishing requirements of § 129.52 (relating to surface coating processes) **or the requirements of § 129.52d (relating to the control of VOC emissions from miscellaneous metal parts surface coating processes, miscellaneous plastic parts surface coating processes and pleasure craft surface coatings).**

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