RULE 330. SURFACE COATING OF METAL PARTS AND PRODUCTS. (Adopted 6/11/1979, revised 7/10/1990, 7/24/1990, 11/13/1990, 4/21/1995, ~~and~~ 1/20/2000, and [*date of amended rule adoption*])

A. Applicability

This rule is applicable to any person who manufactures~~,~~ any metal part coating or metal product coating for use within the District, as well as to any person who uses, applies, or ~~specifies~~ solicits the use or application of any metal part coating, metal product ~~surface~~ coatings~~,~~ or associated solvent within the District ~~for metal parts and products~~.

B. Exemptions

1. ~~The provisions of~~ Section D shall not apply to any non-complying coatings with separate formulations used in volumes of less than 20 gallons of each non-complying formulation per stationary source in any calendar year. ~~provided that~~ To qualify for this exemption from Section D, the total volume of non-complying coatings used at a stationary source ~~does~~ shall not exceed 55 gallons annually. Coatings used for operations that are exempt per Sections B.2, B.3, ~~and~~ B.4, B.5, B.10, and B.12 shall not be included in calculating the volume of coatings used under this exemption. Any person claiming this exemption shall maintain on a daily basis records consistent with Section H.6 and make them available to the District for review upon request. ~~In addition, such person shall be subject to the records required by Section H.~~

2. ~~The provisions of~~ Section ~~D~~E and H shall not apply to touch-up coatings, ~~and~~ repair coatings, and textured ~~finishes~~coatings, provided Section D limits are met and records are maintained pursuant to a Permit to Operate.

3. This ~~R~~rule shall not apply to residential non-commercial metal parts and products coating operations ~~and associated solvent cleaning~~.

4. ~~The provisions of t~~This ~~R~~rule shall not apply to the surface coating of parts or products and associated solvent ~~cleaning~~ where the only metal involved is fasteners, nails, pins, rivets, hinges, hasps, and similar devices used to hold the ~~non-metal~~nonmetal parts together and which do not constitute a substantive part of the total surface area.

5. ~~The provisions of t~~This ~~R~~rule shall not apply to coatings supplied ~~in non-refillable~~ as aerosol products in non-refillable containers ~~having capacities of 18 ounces or less~~.

6. ~~The provisions of t~~This ~~R~~rule shall not apply to the coating ~~and associated solvent cleaning~~ operations listed below, which are covered under the ~~categories~~ rules cited.

   a. ~~Aircraft or a~~Aerospace vehicle~~s~~ or component finishing or refinishing (Rule 337, Surface Coating of Aerospace Vehicles and Components), or~~,~~

   b. Automobile or truck refinishing (Rule 339, Motor Vehicle and Mobile Equipment Coating Operations), or~~,~~

   c. Marine vessel finishing or refinishing (Rule 317, Organic Solvents), or,

   d. Stationary structures (Rule 323, Architectural Coatings)~~.~~, or

   e. Application of adhesives and sealants (Rule 353, Adhesives and Sealants).

Comment [A13]: Our practice is to add **for use within the District** and **uses** text to explain and narrow the scope of the rule. Adding **and associated solvent** extends the applicability to solvent cleaning. This change stems from a commitment in the 2010 Clean Air Plan (CAP).

Comment [A14]: The July 25 draft included a lead-in sentence. Workshop attendees and CAC members indicated on Aug. 10 that the wording was confusing. Hence, staff re-wrote the exemption section for improved clarity.

Comment [A15]: Our protocol is to specify requirements are on a **stationary source** basis. By adding **per stationary source**, misinterpretations that the requirements are on a **facility basis** should be avoided. See Rule 102 for definitions of **stationary source** and **facility**.

Comment [A16]: The original exemption is essentially retained in response to industry concerns. Deleting the "18 ounce or less" text is consistent with the PAR 337.B.3 exemption. The SC and VC metal coating rules do not include capacities in the "aerosol coating product" exemptions either.

Comment [A17]: Including rule titles for referenced rules follows an EPA recommendation.

7. Any coating and associated solvent ~~cleaning~~ subject to the requirements of this ~~Rule~~rule shall be exempt from the requirements of any other coating or solvent rule except Rule~~s~~ 317, Organic Solvents, and Rule 322, Metal Surface Coating Thinner and Reducer.

8. This rule shall not apply to any cleaning performed with a solvent (including emulsions) that contains two percent by weight or less of each of the following:

   a. Reactive organic compounds, and

   b. Toxic air contaminants (as determined by generic solvent data, solvent manufacturer's composition data or by a gas chromatography test and a mass spectrometry test).

   c. Any person claiming this exemption shall maintain the records specified in Sections H.1.a and H.1.f in a manner consistent with Section H.9 and make them available for review.

Comment [A18]: Essentially the same as the Rule 321.B.1 exemption.

9. This rule shall not apply to stripping of cured coatings, cured adhesives, cured sealants, and cured inks, except the stripping of such materials from spray application equipment.

Comment [A19]: Same as the Rule 321.B.4 exemption.

10. Sections D, E, and J, shall not apply to any of the following:

    a. Stencil coatings; ~~and~~

    b. Safety-indicating coatings; ~~and~~

    c. Magnetic data storage disk coatings; ~~and~~

    d. Solid-film lubricants; ~~and~~

    e. Electric-insulating and thermal-conducting coatings.

Comment [A20]: Similar to provisions in South Coast AQMD (SC) Rule 1107(f)(1) and San Joaquin Valley Unified APCD (SJV) Rule 4603.4.8.

11. Section J shall not apply to any of the following:

    a. Cleaning of semiconductor and microelectromechanical devices undergoing manufacturing processes involving thin film deposition, vacuum deposition, dry etching, or metal lift-off operations; including any maintenance activities associated with such operations;

    b. Cleaning of metal in electronic components;

    c. Cleaning of encasements, including decoy shells or box casings, for electronic components that have a total surface area that is less than 2 square feet;

    d. Cleaning of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);

    e. Cleaning of transparencies, polycarbonate, or glass substrates;

    f. Cleaning of solar cells, coated optics, laser hardware, scientific instruments, high-precision optics, telescopes, microscopes, and military fluid systems;

    g. Cleaning or stripping of coating overspray from personal protective equipment.

12. This rule shall not apply to coatings that contain less than 20 grams of reactive organic compound per liter (0.17 pounds of reactive organic compound per gallon) of coating, less water and less exempt compounds, as applied.

C. Definitions

See Rule 102, Definitions, for definitions not limited to this rule. For the purposes of this ~~Rule~~rule, the following definitions shall apply:

1. **"~~Aircraft or~~ Aerospace Vehicle or Component"** means any fabricated part, processed part, assembly of parts, or completed unit of any aircraft including but not limited to airplanes, helicopters, missiles, rockets, ~~or~~ and space vehicles includes satellites.

2. **"Air ~~d~~Dried"** means a process whereby the coated object is cured or dried at a temperature less than 90~~°C~~ degrees Celsius (194~~°F~~ degrees Fahrenheit).

"Associated Solvent" means any solvent used in a solvent cleaning machine or ~~in~~ for solvent cleaning ~~operations subject to this rule~~ performed in association with surface coating of any metal part or product.

3. **"Baked"** means a process whereby the coated object is heated to a temperature of 90~~°C~~ degrees Celsius (194~~°F~~ degrees Fahrenheit) or greater for the purpose of curing or drying.

"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, sealers, and stains. For the purposes of Rule 330, photoresist coatings are not considered to be coatings.

"Compliant Material" means any coating or solvent that has a reactive organic compound content that complies with the applicable limit in Sections D.1, D.2, D.3, or J.

"Control" means the reduction, by destruction or removal, of the amount of affected pollutants in a gas stream prior to discharge to the atmosphere.

4. **"Detailing or Touch-up Guns"** are small air spray equipment, including air brushes, that operate at no greater than 5 ~~cfm~~ cubic feet per minute air flow and no greater than 50 pounds per square inch gauge ~~(psig)~~ air pressure and are used to coat small products or portions of products.

"Dip Coat Application" means any process in which a substrate is immersed in a solution (or dispersion) containing the coating material, and then withdrawn.

"Electric-Insulating and Thermal-Conducting Coating" means a coating that displays an electrical insulation of at least 1,000 volts direct current per mil (0.001 of an inch) on a flat test plate and an average thermal conductivity of at least 0.27 British thermal units per hour-foot-degree-Fahrenheit.

"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.

"Electrodeposition" means the application of a coating using a water-based electrochemical bath process. The component being coated is immersed in a bath of the coating. An electric potential is applied between the component and an oppositely charged electrode hanging in the bath. The electric potential causes the ionized coating to be electrically attracted, migrated, and deposited on the component being coated.

5. ~~**"Electrostatic Application"** means using a sufficient charging of atomized paint droplets to cause deposition by electrostatic attraction. This application requires a minimum 60kV power supply.~~

6. ~~**"Exempt Organic Compounds"** means those compounds listed as exceptions in the definition of "Reactive Organic Compounds" in Rule 102.~~

Comment [A21]: The District protocol is to remove degree symbols, abbreviations, and acronyms. Hence, they are spelled out here and elsewhere.

Comment [A22]: Staff revised the definition to avoid confusion when the "associated solvent" is exempt from the rule and to expand the definition to include solvents used in solvent cleaning machines.

Comment [A23]: The term is used in 330.H.5.

Comment [A24]: The Section B.10.e exemption uses the **electric-insulating and thermal-conducting coating** term. The definition is modeled on the SC Rule 1107 definition.

Comment [A25]: This term coupled with **extreme performance coating** are replacing **industrial maintenance coating**. The **electric-insulating varnish** definition is modeled on the SC Rule 1107 definition.

Comment [A26]: Replaced by the term "electrostatic spray" and relocated it to Rule 102.

Comment [A27]: The District has replaced **exempt organic compound** with **exempt compound** in Rule 330. Also, we are adding **exempt compound** to Rule 102, Definitions.

"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 including water immersion; or

b. Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or

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

"Flow Coat Application" means any coating application system, with no air supplied to the nozzle, where paint flows over the part and the excess coating drains back into the collection system.

~~7.~~ **"Grams of Reactive Organic Compounds per Liter of Coating, Less Water and Less Exempt Compounds"** means the weight of reactive organic compounds per combined volume of reactive organic compounds and coating solids and can be calculated by the following equation:

$$\text{Grams of } \sout{ROC}\text{reactive organic compounds per liter of coating, less water and less exempt compounds} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where:

W_s = Weight of volatile compounds in grams
W_w = Weight of water in grams
W_{es} = Weight of exempt ~~organic~~ compounds in grams
V_m = Volume of material in liters
V_w = Volume of water in liters
V_{es} = Volume of exempt ~~organic~~ compounds in liters

~~8.~~ **"Hand Application Method"** means the application of a surface coating by manually held non-mechanically operated equipment. Such equipment includes paint brush, hand-roller, trowel, spatula, dauber, rag or sponge.

~~9. "High Volume Low Pressure Spraying" means using spray equipment with air pressure between 0.1 and 10.0 psi and air volume greater than 15.5 cfm per spray gun.~~

~~10. "Industrial maintenance coating" means high performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical or solvent resistance.~~

~~"Liquid Leak" means any coating, stripper, or solvent leak at a rate of more than three drops per minute or any visible liquid mist.~~

"Magnetic Data Storage Disk Coating" means a coating used on a metal disk which stores data magnetically.

~~11.~~ **"Metal Part or Product"** means any part, assembly of parts or completed unit fabricated in part or in total from metal.

"Non-Complying Coating" means a coating with a reactive organic compound content above a limit specified in Section D.1, 2, or 3.

"Non-Powder Coating" means any coating that is not a powder coating.

Comment [A28]: Added "including water immersion" per Industry request at the August 10, 2011 workshop.

Comment [A29]: The definition is modeled on the SC Rule 1107 definition. This term coupled with **electric-insulating varnish** are replacing **industrial maintenance coating**.

Comment [A30]: Replaced by the term "high volume low pressure spraying equipment" and relocated it to Rule 102.

Comment [A31]: Rule 323, Architectural Coatings, uses the **industrial maintenance coatings** term and ARB recommends it be deleted from Rule 330. **Extreme performance coating** and **electric-insulating varnish** are used in its place.

Comment [A32]: This term is no longer used in the rule. Hence, it should be deleted.

"Noncompliant Material" means any coating or solvent that has a reactive organic compound content that does not comply with the applicable limit in Sections D.1, D.2, D.3, or J.

Comment [A33]: The term is used in 330.H.5.

"Powder Coating" means any coating applied as fine particle solids with less than 4 percent by weight reactive organic compound or other liquid carriers.

~~**"Reactive Organic Compound"** as defined in Rule 102, Definitions.~~

~~12.~~ **"Repair Coating"** means a coating used to re-coat~~ing~~ portions of a previously coated product ~~due to~~ which has sustained mechanical damage to the coating following normal ~~painting~~ coating operations.

"Safety-Indicating Coating" means a coating which changes physical characteristics, such as color, to indicate unsafe conditions.

"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, polytetrafluoroethylene (PTFE), or other solids that act as a dry lubricant between faying surfaces.

Comment [A34]: Section B.10 uses the **safety-indicating coating** and **solid-film lubricant** terms.

"Solvent" means any liquid containing any reactive organic compound or any toxic air contaminant, which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, drying agent, preservative, or other similar uses.

"Solvent Cleaning" means any activity, operation, or process (including, but not limited to, surface preparation, cleanup, or wipe cleaning) performed outside of a solvent cleaning machine, that uses solvent to remove uncured adhesives, uncured coatings, uncured inks, uncured polyester resin material, uncured sealant, or other contaminants, including, but not limited to, dirt, soil, oil, lubricants, coolants, moisture, fingerprints, and grease, from parts, products, tools, machinery, application equipment, and general work areas. Cleaning spray equipment used for the application of coating, adhesive, ink, polyester resin material, or sealant is also considered to be solvent cleaning irrespective of the spray material being cured.

"Solvent Cleaning Machine" means any device or piece of equipment that uses solvent liquid or vapor to remove soils, moisture, or other contaminants from the surfaces of materials. Types of solvent cleaning machines include, but are not limited to, batch cold, batch vapor, in-line cold, in-line vapor, remote reservoir, and gas-path solvent cleaners. Buckets, pails, and beakers with capacities of 3.785 liters (1.00 gallon) or less are not considered solvent cleaning machines. However, the use of such a container or similar containers (e.g., hand-held spray bottles) with a liquid solvent for cleaning is considered to be solvent cleaning. Any device or piece of equipment used exclusively for stripping shall not be considered to be a solvent cleaning machine.

Comment [A35]: **Solvent, solvent cleaning,** and **solvent cleaning machine** are the same definitions found in Rule 321. **Solvent** includes any liquid containing any **toxic air contaminant.**

~~**"Stationary Source"** as defined in Rule 102, Definitions.~~

"Stencil Coating" means an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products.

Comment [A36]: Section B.10 uses this term.

"Texture Coating" means any coating that is applied to a metal part or product which, in its finished form, consists of discrete raised spots of the coating.

~~13.~~ **"Touch-~~u~~Up Coating"** means ~~that portion of the coating operation which is separate from the~~ a coating used to cover minor coating imperfections appearing after the main coating operation~~process but necessary to cover minor imperfections or to achieve coverage as required~~.

~~**"Touch-Up and Repair Operation"** means that portion of the coating operation that is the incidental application of coating used to cover minor imperfections in the coating finish or to achieve complete coverage. This definition includes out-of-sequence or out-of-cycle coating.~~

~~14. **"Transfer efficiency"** means the ratio of the weight of coating solids adhering to the object being coated to the weight of coating solids used in the application process, expressed as a percentage.~~

Comment [A37]: This term has been relocated to Rule 102.

D. Requirements -- Reactive Organic Compound~~s~~ Limits

~~A.~~ No person shall ~~not~~ apply any coating or ~~specify~~ solicit the use of any coating on any metal part or product subject to the provisions of this ~~Rule~~rule, which, as applied, ~~emits or may emit~~ contains reactive organic compounds ~~into the atmosphere~~ in excess of the following limits. These limits are expressed in grams of reactive organic compound per liter or pounds of reactive organic compound per gallon of coating, less water and less exempt ~~organic~~ compounds.

Comment [A38]: Our practice is to improve text flow by changing the sentence structure in this manner.

Comment [A39]: ARB suggested the text changes in a letter dated February 2, 1995.

1. Non-Powder Coatings except Air Dried ~~Industrial Maintenance~~ Extreme Performance Coatings and Air Dried Electric-Insulating Varnish:

Air Dried	Baked
340 grams per liter 2.8 pounds per gallon	275 grams per liter 2.3 pounds per gallon

Comment [A40]: Including **pounds per gallon** equivalents is an approach used in Rule 337.

2. Non-Powder ~~Industrial Maintenance~~ Extreme Performance Coatings and Electric-Insulating Varnish - 420 grams per liter, 3.51 pounds per gallon (when air dried)

Comment [A41]: Deleting **industrial maintenance coating** and replacement it with **extreme performance coatings** and **electric-insulating varnish** follows an ARB recommendation.

3. Powder Coatings - 50 grams per liter, 0.42 pound per gallon

4. ~~Sources~~ A person may elect to use an add-on ~~exhaust~~ control system ~~equipment to achieve~~ as an alternative to meeting the requirements ~~compliance with provisions~~ of Sections D.1, D.2, D.3, E, and J, provided ~~that the control equipment meets~~ all of the applicable requirements ~~of Sections a and b~~ below are met. ~~Such control equipment must be approved in advance by the Control Officer.~~ Any person choosing to install such control ~~equipment~~ system shall obtain an Authority to Construct from the District prior to installation.

Comment [A42]: Following other air district methods, sources may comply with the Section E (application equipment) and Section J (solvent ROC-content) provisions by using an add-on control system.

~~a. The control device shall reduce emissions from an emission collection system by at least 95 percent by weight.~~

~~b. The emission collection system which collects and transports emissions to an air pollution control device shall collect at least 90 percent by weight of the emissions generated by the sources of emissions.~~

a. The overall efficiency (the capture efficiency multiplied by the control device efficiency) of the total system shall be at least 85.5 percent, by weight. Alternatively, the control device reactive organic compound exhaust concentration shall not exceed 10 parts per million by volume as propane or other limit approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

Comment [A43]: Similar to the Rule 321.N.1 provision.

b. Combustion temperature shall be continuously monitored when operating a thermal incinerator.

c. Inlet and exhaust gas temperatures shall be continuously monitored when operating a catalytic incinerator.

d. Control device efficiency shall be continuously monitored when operating a carbon adsorber or a control device other than a thermal or catalytic incinerator.

Comment [A44]: Subsections b - d mirror Rule 353.I provisions.

e. Compliance through the use of an add-on control system shall not result in affected pollutant emissions in excess of the affected pollutant emissions that would result from compliance with Sections D.1, D.2, D.3, E, and J.

Comment [A45]: Similar to Rule 321.N.6. (**Reactive organic compound** changed to **affected pollutant** to include TACs.)

E. Requirements – Application Equipment

~~A~~No person shall ~~not~~ apply coatings subject to the provisions of this rule ~~except by using properly operated~~ unless the application is performed with equipment ~~and by~~ operating according to the manufacturers operating guidelines. In addition, except as provided in Section D.4, the application method employed shall be one of the following:

Comment [A46]: ARB suggested the addition of **according to the manufacturers operating guidelines.**

1. Electrostatic spray application, or
2. Flow coat application, or
3. Dip coat application, or
4. High volume~~,~~ low pressure spraying equipment, or
5. Electrodeposition, or
6. Hand application methods, or
7. Detailing or touch-up guns, or
8. Any other ~~coating~~ application method ~~that is demonstrated to the satisfaction of~~ approved by the Control Officer, the Air Resources Board, and the Environmental Protection Agency, ~~achieves~~ that has a coating transfer efficiency ~~at least~~ equivalent to or greater than ~~the~~ 65 percent ~~transfer~~ efficiency as ~~demonstrated by~~ measured using the test method specified in Section I.4.

F. Requirements – ~~Closed Containers~~General Operating

Any person who owns, operates, or uses any application equipment to surface coat any metal part or product shall meet the following requirements:

1. All reactive organic compounds-containing materials, used or unused, including, but not limited to, surface coatings, thinners, cleanup solvents, or surface preparation materials shall be stored and disposed of in ~~closed~~ nonabsorbent and nonleaking containers equipped with tight-fitting covers. All covers shall be in place unless adding material to or removing material from the containers, ~~and opened only during extraction or introduction of material for mixing, use or storage~~ the containers are empty, or doing maintenance/inspection of the containers. ~~After distillation recovery of solvent, waste solvent residues shall not contain more than 20 percent of reactive organic compound by weight as determined by the test method specified in Section I.7.~~

2. All application equipment, ventilation system, and emission control equipment shall be installed, operated, and maintained consistent with the manufacturer's specifications.

3. Waste solvent, waste solvent residues, and any other waste material that contains reactive organic compounds shall be disposed of by one of the following methods: ~~All containers holding surface coating or solvent shall be free of liquid leaks. All application equipment, solvent distillation units, and gun washers shall not have any liquid leaks, visible tears, holes, or cracks. Any such liquid leak, visible tear, hole, or crack is a violation of this rule.~~

   ~~Any liquid leak, visible tear, hole, or crack that is detected shall be repaired within one day from discovery, or the equipment shall be drained of all surface coating or solvent, consistent with Section F.1 provisions, and shut down until replaced or repaired. Application equipment, solvent distillation units, and gun washers shall not be operated when leaking.~~

   a. A commercial waste solvent reclamation service licensed by the State of California.

b. At a facility that is federally or state licensed to treat, store or dispose of such waste.

c. Recycling in conformance with Section 25143.2 of the California Health and Safety Code.

4. All covers, valves, drain plugs, and other closure devices designed to reduce surface coating or solvent evaporation shall not be removed or opened except to process work or to perform monitoring, inspections, maintenance, or repairs that require the removal of the covers or other closure devices.

5. Any surface coating or solvent spills shall be wiped up immediately and the used absorbent material (e.g., cloth, paper, sand, sawdust, etc.) shall be stored in closed containers that are handled in accordance with Section F.1.

6. The handling and transfer of coatings and cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent coatings and cleaning solvents shall be conducted in such a manner to minimize spills.

7. ~~Any storage of any compound~~ Containers used to store coating, solvent, or any waste material that contains reactive organic compounds subject to this rule shall be marked or clearly labeled indicating the name of the material they contain~~only be done in containers that meet the labeling requirements of Section G~~.

G. Requirements ~~–~~ Manufacturer Labeling

1. Each container of any coating subject to this rule shall display the date on which the contents were manufactured or a code indicating the date of manufacture. Each manufacturer of such coatings shall file with the Control Officer and the Executive Officer of the California Air Resources Board, an explanation of each code.

2. Each container of any coating subject to this rule shall display a statement of the manufacturer's recommendation regarding thinning of the coating. This recommendation shall not apply to the thinning of coatings with water. The recommendation shall specify that the coating is to be employed without thinning or diluting under normal environmental and application conditions unless any thinning recommended on the label for normal environmental and application conditions does not cause a coating to exceed its applicable standard for reactive organic compound content.

3. Each container of any coating subject to this rule shall display the maximum reactive organic compound content of the coating, as applied, and after any thinning as recommended by the manufacturer. Reactive organic compound content shall be displayed as grams of reactive organic compounds per liter or pounds of reactive organic compound per gallon of coating, less water and less exempt ~~solvents~~compounds. The volatile organic compound content may be displayed instead of the reactive organic compound content as long as the manufacturer's definition of volatile organic compound is consistent with the definition of reactive organic compound contained in District Rule 102, Definitions. Reactive organic compound content displayed may be calculated using product formulation data and the formula in Section C, or may be determined using the test method in Section ~~H~~I.1.

Comment [A47]: The **housekeeping** provisions are similar to requirements found in Rule 321.D.

Comment [A48]: Adding **for reactive organic compound content** follows an ARB recommendation.

Comment [A49]: Inserting **and the formula in Section C** follows an ARB suggestion relative to Rule 337 (letter dated February 2, 1995).

H. Requirements -- Recordkeeping

Any ~~Persons~~ person subject to this ~~Rule~~rule shall comply with the following requirements. Any owner or operator of any stationary source comprised of more than one facility may comply with the following requirements on a facility basis.

1. Maintain a current ~~listing~~file of all reactive organic compound--containing materials in use at the stationary source subject to this ~~Rule~~rule. The file shall provide all of the data necessary to evaluate compliance and shall include the following information, as applicable:

   a. material name and manufacturer identification (e.g., brand name, stock identification number);

   b. application method;

   c. material type (~~i.e.~~ e.g., air dried or baked enamel, powder coating, ~~industrial maintenance~~ extreme performance coating, cleanup solvent, etc.), type operation (e.g., coating, stripping, or solvent cleaning), and, for non-powder coating operations, the drying method and equipment coated;

   d. specific mixing ~~ratio~~data (e.g., component volumes or weights) of each component for each batch sufficient to determine the mixture's reactive organic compound content;

   e. the corresponding reactive organic compound content limit from Sections D.1, D.2, D.3 and J.1 and the ~~maximum~~ actual as- applied reactive organic compound content of ~~each~~ the materials used~~, less water and less exempt compounds (including thinning solvents)~~; and

   f. current coating and solvent manufacturer specification sheets, Material Safety Data Sheets, product data sheets, or air quality data sheets, which list the reactive organic compound content of each material in use at the stationary source subject to this rule. Compliance with this provision may be done by ensuring the manufacturer's specifications are listed on the product container.

2. ~~For each industrial maintenance coating, a list of each part or product coated on a monthly basis.~~[Reserved]

~~3. Current coating manufacturer specification sheets, Material Safety Data Sheets or current air quality data sheets, which list the reactive organic compounds content of each material in use at their facility, shall be available for review on site.~~

~~4~~3. Maintain ~~purchase~~ records ~~identifying the type or name and the volume of material purchased~~ for each reactive organic compound~~s~~-containing material~~.~~ purchased for use at the stationary source. The records shall include, but not be limited to, the following:

   a. material name and manufacturer identification (e.g., brand name, stock identification number); and

   b. material type (e.g., air dried or baked enamel, powder coating, extreme performance coating, cleanup solvent, etc.)~~:~~.

   ~~c. volume of material purchased;~~

   ~~d. date of purchase; and~~

   ~~e. receipts of each purchase.~~

Comment [A50]: The District added this in response to an Industry comment received during the Aug. 10, 2011 workshop.

Comment [A51]: Our protocol is to specify requirements are on a **stationary source** basis. By adding **in use at the stationary source**, misinterpretations that the requirements are on a **facility basis** should be avoided.

Comment [A52]: Essentially the same text found in Rule 353.O.1.

Comment [A53]: Added in response to a comment by VAFB.

Comment [A54]: We decided to obtain information on the coating categories and equipment coated in 330.H.1.c and make this Section reserved.

Comment [A55]: Moved to 330.H.1.f.

4. Maintain records of the disposal method ~~of disposal~~ each time waste solvent, ~~or~~ waste solvent residue, or other waste material that contain reactive organic compounds is removed from the stationary source for disposal.

5. ~~Maintain~~ For each material maintained in response to Section H.1.a, maintain, at a minimum, on a monthly basis for compliant material and on a daily basis for noncompliant material, a record of the following:

   a. volume used (gallons per day, gallons per month)~~,~~;

   b. reactive organic compound~~s~~ content (grams per liter or pounds per gallon); and

   c. ~~and~~ resulting reactive organic compound emissions (pounds per day, pounds per month) ~~of each reactive organic compounds containing material used~~.

   ~~For permitted facilities stationary sources and users of non-compliant coatings, all records required by this Subsection and Subsection Section H.1 shall be summarized for each calendar year and submitted to the District by March 1 of the following year. The annual report shall include the name and address of the Permittee, the Permit to Operate number that the coating and solvent cleaning is subject to (if permitted), and/or a statement that the annual report includes non-compliant coating usage information.~~

6. ~~Operators of facilities that use non-compliant coating materials that do not achieve compliance through the operation of emission control equipment shall maintain daily records of the volumes of non-compliant coating materials used. In addition, operators claiming the Section B.1 exemption shall maintain~~Any person claiming an exemption under the Section B.1 shall maintain:

   a. Daily records of the volumes in gallons of non-~~compliant~~complying coating materials used by each separate formulation at the stationary source.

   b. Annual running totals, from January 1 of each calendar year, of the volume in gallons of non-~~compliant~~ complying coating materials used at the stationary source for:

      1) Each separate formulation.

      2) All formulations.

7. ~~Operators of facilities~~ For any stationary source that uses ~~non-compliant coating materials with compliance achieved through the operation of~~ emission control equipment as an alternative to meeting the requirements of Sections D.1, D.2, D.3, E, or J, ~~shall maintain~~ daily records of key operating parameter values and maintenance procedures ~~which~~ that demonstrate continuous operation and compliance of the emission control ~~device~~ system during periods of emission producing activities shall be maintained. These parameters shall include, but not be limited to:

   a. Hours of operation;

   b. All maintenance work that requires the emission control system to be shut down; and

   c. All information needed to demonstrate continuous compliance with Section D.4, such as temperatures, pressures, and/or flow rates.

8. ~~If an operator or District staff discovers a liquid leak in a container holding surface coating or solvent, or a liquid leak, visible tear, hole, or crack in application equipment, a solvent distillation unit, or in a gun washer, the operator shall record:~~

Comment [A56]: Revised to show "Section H.1.a" to exclude MSDSs per clarification request received during the August 10, 2011 workshop.

Comment [A57]: The daily recordkeeping provision was added for consistency with the EPA "Guidance Document for Correcting Common VOC & Other Rule Deficiencies."

Comment [A58]: Moved the annual reporting requirements to Section L per industry suggestion.

Comment [A59]: Subsections a - c are from Rule 321.R.1.c.

~~a. the date of discovery;~~

~~b. the corrective action taken; and~~

~~c. the date of repair or equipment replacement.~~

~~9.~~ ~~All~~ Any records required ~~by~~ to be maintained pursuant to this rule shall be kept on site for at least 2 years unless a longer retention period is otherwise required by state or federal regulation(s). Such records shall be readily available for ~~expeditious~~ ~~shall be retained and available for~~ inspection ~~by the Control Officer or designated representative upon request for the previous 36-month period~~ and review by the District.

I. Requirements ~~–~~ Compliance Provisions and Test Methods

1. Coatings and solvent reactive organic compound content shall be ~~determined~~ measured ~~using~~ by the Environmental Protection Agency Reference Method 24, ~~or~~ its constituent methods, or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. The determination of exempt compounds shall be performed in accordance with ASTM D 4457-1991, "Standard Test Method for Determination of Dichloromethane and 1,1,1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph," ASTM International. Alternatively, determination of exempt compounds may be performed in accordance with the South Coast Air Quality Management District Method 303-91, "Determination of Exempt Compounds," August 1996. The reactive organic compound content of materials containing 50 grams of reactive organic compound per liter or less shall be determined by the South Coast Air Quality Management District Method 313-91, "Determination of Volatile Organic Compounds by Gas Chromatography-Mass Spectrometry," June 1993, or any other test methods approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer.

2. ~~Compliance with Section D.4.a~~ The control device efficiency for reactive organic compound emissions shall be determined by ~~using Air Resources Board Method 100 or~~ Environmental Protection Agency Methods ~~18,~~ 25, ~~or~~ 25A, the South Coast Air Quality Management District Method 25.1, "Determination of Total Gaseous Non-Methane Organic Emissions as Carbon," February 1991, or the South Coast Air Quality Management District Method 25.3, "Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources," March 2000, as applicable. Environmental Protection Agency Test Method 18 or Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990, shall be used to determine emissions of exempt compounds.

3. ~~Compliance with Section D.4.b~~ The capture efficiency for reactive organic compound emissions shall be determined ~~according to~~ by verifying the use of a Permanent Total Enclosure and 100 percent capture efficiency as defined by Environmental Protection Agency Method 204 ~~and 204A-F.~~, "Criteria for and Verification of a Permanent or Temporary Total Enclosure." Alternatively, if an Environmental Protection Agency Method 204 defined Permanent Total Enclosure is not employed, capture efficiency shall be determined using a minimum of three sampling runs subject to data quality criteria presented in the Environmental Protection Agency technical guidance document "Guidelines for Determining Capture Efficiency, January 9, 1995." Individual capture efficiency test runs subject to the Environmental Protection Agency technical guidelines shall be determined by:

   a. The Temporary Total Enclosure approach of Environmental Protection Agency Methods 204 through 204F; or

   b. The South Coast Air Quality Management District "Protocol for Determination of Volatile Organic Compounds (VOC) Capture Efficiency," May 1995.

Comment [A60]: During the CAC meeting on August 10, 2011, a concern about the need to maintain records for 5 years was raised. Staff discovered that EPA had modified its 5 year recordkeeping policy. Hence, per the EPA "Guidance Document for Correcting Common VOC & Other Rule Deficiencies," 2 years record retention is acceptable for sources not subject to Title V permitting or a MACT standard.

Comment [A61]: EPA recommended referring to SC Method 313 for determining ROC content of materials containing < 50 g/l.

Comment [A62]: EPA recommended that this provision mirror the SC Rule 1122(h)(7)(B) text.

Comment [A63]: EPA recommended that the District model the provisions on SC Rule 1122(h)(7)(A) text.

4. ~~Compliance with Section E.8~~ Application equipment coating transfer efficiencies shall be ~~determined~~ measured using South Coast Air Quality Management District Method "Spray Equipment Transfer Efficiency Test Procedure of Equipment User," May ~~24,~~ 1989.

5. The control device efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined using:

   a. an Environmental Protection Agency approved test method or methods, or

   b. in the case where there is no Environmental Protection Agency approved test method, a District approved detection method applicable for each target toxics specie.

   c. the Control Officer may require more than one test method on any emission control device where necessary to demonstrate that the overall efficiency is at least 85.5 percent by weight in reducing emissions of reactive organic compounds and/or toxic air contaminants. Any technique to convert "parts per million by volume" test method results to either 1) "parts per million by weight," or 2) "mass emission rates" (e.g., pounds per hour) shall first be approved by the Control Officer and, if such approval is not provided, then the technique shall not be used to show compliance with this rule.

Comment [A64]: Essentially the same as Rule 321.P.4 provisions.

6. The capture efficiency for toxic air contaminant emissions that are not reactive organic compounds shall be determined by using the methods described in Section I.3 modified in a manner approved by the District to quantify the mass of liquid or gaseous reactive organic compounds and/or toxic air contaminants.

Comment [A65]: Similar to the Rule 321.P.3 requirements.

7. ~~Solvent waste residue reactive organic compound content shall be determined by using Environmental Protection Agency Reference Method 25D or an equivalent method approved by the Environmental Protection Agency, the Air Resources Board, and the Control Officer. [Reserved.]~~Emissions of reactive organic compounds from the exhaust of an emission control system shall be measured by the Environmental Protection Agency Method 25, in combination with Environmental Protection Agency Method 18 or the California Air Resources Board Method 422, "Exempt Halogenated VOCs in Gases," September 12, 1990 (to determine emissions of exempt compounds).

8. When more than one test method or set of test methods are specified for any testing, a test result showing an exceedance of any limit of this rule shall constitute a rule violation.

Comment [A66]: Added per the EPA recommendation in the Technical Support Document for SJV Rule 4605 (June 2009).

9. The Environmental Protection Agency test methods in effect on [*date of amended rule adoption*] shall be the test methods used to meet the requirements of this rule.

J. Requirements – Solvent Cleaning Associated with Surface Coating of Metal Parts and Products

Comment [A67]: Section J stems from similar **solvent cleaning** provisions in Rule 321.M.

Section J requirements shall apply to any person performing solvent cleaning associated with surface coating of metal parts and products, including, but not limited to, use of wipe cleaning cloths, hand-held spray bottles, squirt bottles, aerosol products, and the cleaning of application equipment. The following requirements become effective [*one year from the date of amended rule adoption*] and are in addition to the general operating requirements specified in Section F.

1. **Solvent Requirements**

   Except when using an emission control system that meets the requirements of Section D.4, no person shall use any solvent to perform solvent cleaning which exceeds the applicable grams of reactive organic compound per liter of material limit specified in Table 330-1.

Table 330-1: Reactive Organic Compound Content Limits for Solvent Cleaning Associated with Surface Coating of Metal Parts and Products

SOLVENT CLEANING ACTIVITY	ROC Limit, grams of ROC per liter of material (pounds of ROC per gallon of material)
(a) Metal Parts and Products Surface Preparation for Coating Application	25 (0.21)
(b) Cleaning of Coatings Application Equipment	25 (0.21)

Comment [A68]: Both ARB and EPA recommend a 25 g/l limit on the solvent's ROC content.

K. Compliance Schedule

~~Except for Section J requirements, the provisions of this rule are effective on [*date of amended rule adoption*]. Any person subject to this rule shall comply with the Section J requirements by [*one year from the date of amended rule adoption*].~~

Any person who owns, operates, or uses any application equipment to surface coat any metal part or product shall meet the following compliance schedule:

1. By [*30 days from the date of amended rule adoption*], comply with Section F, Requirements - General Operating.

2. By [*six months from the date of amended rule adoption*], comply with the recordkeeping provisions in the following Sections:

   a. H.1.d - mixing volume data,

   b. H.1.e - reactive organic compound content data,

   c. H.3 - purchase records,

   d. H.4 - waste disposal records, and

   e. H.5 - daily records for noncompliant materials.

3. By [*one year from the date of amended rule adoption*], comply with the Section J and Section M requirements.

4. By [*date of amended rule adoption*], comply with all other provisions of this rule.

Comment [A69]: The compliance schedule provision was expanded in response to a request from Industry.

L. Reporting Requirements

Submittal of an annual report to the District is required if:

- A person holds a permit for equipment subject to the requirements of this rule, or
- A person is subject to the requirements of this rule and applies non-complying coatings.

The annual report shall be submitted to the District by March 1 and it shall contain the following information for the previous calendar year:

1. monthly records required by Section H.5,

2. annual totals (gallons) based on each of the coating's and solvent's monthly data,

3. if claiming the Rule 330.B.1 exemption, annual totals (gallons) of non-complying coatings for each separate formulation and all formulations, per Section H.6.b, and

4. if permitted, name and address of the company or agency, and the Permit to Operate number that the surface coating equipment is subject to.

Comment [A70]: The annual report provision was relocated from Section H.5 to a stand-alone section per an Industry suggestion.

M. Requirements - Solvent Cleaning Machine

Any person who owns, operates, or uses any solvent cleaning machine shall comply with the applicable provisions of Rule 321, Solvent Cleaning Machines and Solvent Cleaning.

Comment [A71]: Added to clarify that Rule 321 provisions apply to solvent cleaning machines when used in conjunction with surface coating of metal parts and products.